SUBMITTAL TO THE RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER GOVERNING BOARD COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

ITEM: 18.3
(ID # 29746)
MEETING DATE:
Tuesday, January 27, 2026

FROM : RUHS-MEDICAL CENTER

SUBJECT: RIVERSIDE UNIVERSITY HEALTH SYSTEM- MEDICAL CENTER: Riverside University Health System Medical Center Cardiac Catheterization Laboratory Suite Project – Approval of Plans and Specifications to Advertise for Bids, District 5. [$0] (Clerk to Advertise for Bids)

RECOMMENDED MOTION: That the Board of Supervisors:

1. Approve the plans and specifications for bidding and construction of the Riverside University Health System Medical Center Cardiac Catheterization Laboratory Suite (RUHS-MC Cath Lab) Project;
2. Authorize the Clerk of the Board to advertise for bids to be received by the Clerk of the Board, located at the County Administration Center at 4080 Lemon Street, Riverside, CA 92501. All bids must be received up to the hour of 2:00 p.m., Thursday, April 02, 2026, at which time bids will be publicly opened; and
3. Upon completion of the bid process and review of the publicly opened bids, authorize the Chief Executive Officer at Riverside University Health System - Medical Center, or her designee, to return to the Board to award the construction contract to the lowest responsive and responsible bidder.

ACTION:Policy

Jennifer Cruikshank
Jennifer Cruikshank, Chief Executive Officer – Health System 1/15/2026

MINUTES OF THE GOVERNING BOARD

On motion of Supervisor Perez, seconded by Supervisor Spiegel and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

Ayes:	Medina, Spiegel, Washington, Perez, and Gutierrez
Nays:	None
Absent:	None
Date:	January 27, 2026
xc:	RUHS-MC, COB/DL/NS

Kimberly A. Rector
Clerk of the Board
By: _____
Deputy

SUBMITTAL TO THE RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER GOVERNING BOARD OF DIRECTORS COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	$0	$0	$0	$0
NET COUNTY COST	$0	$0	$0	$0
SOURCE OF FUNDS: RUHS Enterprise Fund 40050 – 100%			**Budget Adjustment:** No	
			For Fiscal Year: 25/26 – 27/28	

C.E.O. RECOMMENDATION: Approve

BACKGROUND:

Summary

On July 26, 2022, Item 3.15, the Board of Supervisors (Board) approved in-principle and pre-development work and costs in the amount of $265,000 for the RUHS Cardiac Cath Lab Suite (Project) Project, and found the Project is exempt from the California Environmental Quality Act (CEQA) Pursuant to the State CEQA Guidelines Section 15301, Class 1 Existing Facilities Exemption, and Section 15061 (b)(3) "Common Sense" Exemption. On May 23, 2023, Item 3.22, the Board approved additional funds to establish a preliminary design development budget in the amount of $1,856,427 and approved the Professional Services Agreement for architectural services between the County and Leo Daly in the amount of $1,284,260 for the design of two catheterization lab suites.

On July 6 and July 13, 2023, Facilities Management (FM) advertised a Request for Qualifications for the selection of a firm to provide construction management (CM) services for the Project. Per Board Policy H-7, a selection committee was formed by FM and RUHS staff to review the Statement of Qualifications (SOQ). After the completion of the review and interview process, Bernards was selected as the firm best qualified to provide CM services for the Project. Bernard's scope of work includes but is not limited to: assist in pre-construction services, develop the scope of work, develop bid documents and advertise to bid for each trade.

The plans and specifications for the construction of the Project are now complete. Riverside University Health System Medical Center Facilities Design & Development (RUHS-FDD) recommends the Board approve the plans and specifications for the Project and authorize the Clerk of the Board to advertise the Notice Inviting Bids. Upon completion of the bid process, RUHS-FDD will return to the Board for approval of the project budget and award of the lowest responsive and responsible bidder.

The multi-prime bid categories are as follows:

Category #	Description	License
00	RUHS-00 General Requirements - All Bid Packages	All
01	RUHS-10 Misc. Specialties	A, B, C5
02	RUHS-02 Demo	A, B, C21
03	RUHS-03 Concrete	A, B, C8
04	RUHS-05 Structural Steel	A, B, C51
05	RUHS-06 Millwork	A, B, C6

06	RUHS-07 Roofing and Sheet Metal	A, B, C39, C43
07	RUHS-08 Doors Frames and Hardware	A, B, C5, C6
08	RUHS-08 Glazing	A, B, C17
09	RUHS-09 Framing, Drywall, Plaster and Shielding	A, B, C5, C9
10	RUHS -09 Acoustical Panel Ceilings	A, B, C5, C2
11	RUHS-09 Painting and Wall Covering	A, B, C5, C33
12	RUHS 09 Flooring and Tile	A, B, C15
13	RUHS-21 Fire Sprinkler	A, B, C16
14	RUHS-22 Plumbing	A, B, C36
15	RUHS-23 HVAC	A, B, C36
16	RUHS-26, 27, 29 Electrical and Low Voltage	A, B, C20

Impact on Residents and Businesses

The RUHS Cardiac Cath Lab Suite Project will improve the efficiency of medical care provided to heart and vascular patients at the RUHS hospital.

Additional Fiscal Information

The approximate allocation of the project budget is as follows:

PROJECT BUDGET LINE ITEMS	INITIAL APPROVED PROJECT BUDGET
DESIGN PROFESSIONAL OF RECORD	1,673,921
SPECIALTY CONTULTANTS	201,205
REGULATORY PERMITTING	369,300
CONSTRUCTION	11,003,705
• CONSTRUCTION MANAGEMENT	1,362,616
COUNTY ADMINISTRATION	249,200
PROJECT CONTINGENCY	911,796
PROJECT BUDGET	**$ 15,771,743**

The Board previously approved the preliminary project budget of $15,771,743 on March 12, 2024 (Item 3.11) which is 100% funded by RUHS Enterprise Fund 40050.

There are no costs associated with this Board action.

Attachments:

- Plans and Specifications for the RUHS-MC Cath Lab Project
- Construction Documents

Jacqueline Ruiz, Principal Analyst 1/21/2026

Aaron Gettis, Chief Deputy County Counsel 1/15/2026

BID AND CONTRACT DOCUMENTS 1 of 3

FOR

PROJECT No. MC08430011869

CARDIAC CATHETERIZATION LABORATORY

Riverside University Health System Medical Center
26520 Cactus Ave, Moreno Valley, CA 92555

Los Angeles Corporate
555 First Street
San Fernando, CA 91340
T 818 898 1521
F 818 361 9208

FORM APPROVED COUNTY COUNSEL
BY KRISTINE BELL-VALDEZ DATE

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NOTICE TO BIDDERS

The **County of Riverside** ("County") will receive sealed bids for the **Construction Management - Multi-Prime Bid Project No. MC08430011869 - Cardiac Catheterization Laboratory – All Bid Categories (see Bid Category List Below).**

> **CARDIAC CATHETERIZATION LABORATORY** no later than **2:00 PM** on **April 02nd, 2026 (the "Bid Deadline")**

at **Clerk of the Board located on the 1st Floor of the County Administrative Center, 4080 Lemon Street, Riverside, CA 92501.** The Project consists of Construction of approximately 46,000 square foot tenant improvement of an of Work of Project will be defined in the Contract Documents and consist of an 8,600 square foot Cardiac Catheterization Lab Suite comprised of two (2) catheterization labs with their own dedicated control rooms and imaging equipment rooms. Support spaces for the catheterization lab suite will include Clean and Soiled Utility Rooms, Storage, Medication Preparation, Pre/Post Op beds, Nurse station and Staff and Administration areas. An additional 720 square feet will be renovated to enlarge the existing hyperbaric room and provide one (1) additional hyperbaric therapy chamber. The total project square footage will be 9,320 square feet ("County Documents"). This Project is being constructed using Multiple Prime Contractors, totaling approximately 16 unique bid packages with each prime trade contractor executing a direct contract with the owner. The Construction Manager will provide full-time, on-site construction management including coordination and scheduling for the entire Project as further described in the bid and contact documents. The pre-qualified Bidders shall review the County Documents for more complete information regarding the Project and submission of bids. The architect's/engineer's construction cost estimate for this Project, including alternates, is **$12,982,000.**

Bid Documents will be available on **February 2, 2026, via www.ruhealth.org/rfp-rfq and by contacting Bernards Brothers at CM-RUHS@bernards.com**. Bidders shall submit to Clerk of the Board all documents for bidding as provided for in the Instruction to Bidders. **Bids will only be accepted from bidders who have previously pre-qualified and registered all of its current information with the County's online database at www.purchasing.co.riverside.ca.us, including W-9 and IRS 147C forms; or update its information if already registered with the County of Riverside. Bidders viewing plans online are responsible for contacting CM-RUHS@bernards.com and requesting to be included on the Plan holders List.** Bid sets are available for viewing in the Construction Manager's office located at 14375 Nason Street, Ste. 102, Moreno Valley, CA 92555. **Bidders are responsible for confirmation that they have viewed all addenda prior to the bid deadline and will be required to acknowledge addenda on their bid form.**

A **mandatory** pre-bid meeting and job walk for prime contractors will be held on

> **17th, February 2026** at **8:00 AM**
> For Packages 02 RUHS-02 Demo, 04 RUHS-05 Structural Steel, 13 RUHS-21 Fire Sprinkler, 14 RUHS-22 Plumbing, 15 RUHS-23 HVAC and 16 RUHS-26, 27, 29 Electrical and Low Voltage
>
> **18h , February, 2026** at **8:00 AM**
> For Packages 09 RUHS-09 Framing, Drywall, Plaster and Shielding, 07 RUHS-08 Doors Frames and Hardware, 03 RUHS-03 Concrete, 06 RUHS-07 Roofing and Sheet Metal,

19th , February, 2026 at **8:00 AM**
For Packages 01 RUHS-10 Misc. Specialties 05 RUHS-06 Millwork, 08 RUHS-08 Glazing, 10 RUHS -09 Acoustical Panel Ceilings, 11 RUHS-09 Painting and Wall Covering, and 12 RUHS 09 Flooring and Tile

at **26520 Cactus Ave, Moreno Valley, CA 92555. All Trades**. The deadline to submit a request for information (RFI) is **March 04th, 2026**. RFI's may be submitted to CM-RUHS@bernards.com. Any supplemental instructions will be in the form of written addenda, which, when issued, will be posted via www.ruhealth.org/rfp-rfq not later than seventy-two (72) hours prior to the date fixed for the opening of bids. All addenda so issued shall become Part of the Contract and acknowledged by Bidder.

Only Pre-qualified contractors are allowed to bid. Bids must be submitted to the County on the County's bid forms. **All bids must be addressed, sealed in an envelope, and received by to the Clerk of the Board located on the 1st Floor of the County Administrative Center, 4080 Lemon Street, Riverside, CA 92501 no later than the Bid Deadline**. All bids will be publicly opened immediately after the Bid Deadline. Bids received after the Bid Deadline shall be rejected. County reserves the right to reject any or all bids and to waive any informality or irregularity in any bid received.

Bids shall be valid for **one hundred twenty (120) days** after the Bid Deadline. Bids must be accompanied by cash, a certified or cashier's check, or a bid bond in favor of the County in an amount not less than ten percent (10%) of the submitted total bid price. The successful bidder will be required to furnish a performance bond and a payment bond, each in the amount of one hundred percent (100%) of the total bid price in the manner described in the Contract Documents. Bidders shall comply with California Public Contract Code Section 4108 with respect to subcontractor bond requirements. Bidders shall possess one or more of the following California Contractor's license(s) at the time of the bid opening in order to perform the work:

Category #	Description	License
00	RUHS-00 General Requirements - All Bid Packages	All
01	RUHS-10 Misc. Specialties	A, B, C5
02	RUHS-02 Demo	A, B, C21
03	RUHS-03 Concrete	A, B, C8
04	RUHS-05 Structural Steel	A, B, C51
05	RUHS-06 Millwork	A, B, C6
06	RUHS-07 Roofing and Sheet Metal	A, B, C39, C43
07	RUHS-08 Doors Frames and Hardware	A, B, C5, C6
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10	RUHS -09 Acoustical Panel Ceilings	A, B, C5, C2
11	RUHS-09 Painting and Wall Covering	A, B, C5, C33
12	RUHS 09 Flooring and Tile	A, B, C15
13	RUHS-21 Fire Sprinkler	A, B, C16
14	RUHS-22 Plumbing	A, B, C36
15	RUHS-23 HVAC	A, B, C36
16	RUHS-26, 27, 29 Electrical and Low Voltage	A, B, C20

Contractors wishing to bid on select trades **must** have been previously pre-qualified by the County prior to Bid Due Date. Subcontractors must possess the appropriate licenses for each specialty subcontracted. Bids will only be accepted from bidders who have previously pre-qualified and registered all of its current information with the County's online database at www.purchasing.co.riverside.ca.us, including W-9 and IRS 147C forms; or update its information if already registered with the County of Riverside.

Bid Form. If Alternates are included in the Bidding Documents, then a Bid amount for each and every such Alternate shall be included in the spaces provided in the Bid Form for that purpose. If the Bidder determines that the Alternate does not affect the amount of its Base Bid, then the Bidder shall enter "No Change" in the Bid Form.

Lay Down. All bidders should include pricing to relocate from the assigned lay-down area the first week of May 2027.

Basis for Award. Where the Bidding Documents include Allowances; the Lowest Bid Price is the Total Bid Amount identified on the Bid Form and shall include the Base Bid plus all Allowances. In the event of Alternate Bids, Alternate Bids shall not be included in the Total Bid Amount. If applicable the Alternate Bids shall be listed separately on the spaces provided on the Bid Form for Alternate Bids.

In-Use Off-Road Diesel-Fueled Fleet Certificate of Reported Compliance. Valid Certificates of Reported Compliance as described in California Code of Regulations, title 13, section 2449(n) for fleets of vehicles subject to 13 CCR section 2449 are required for this project.

This Project is public work for purposes of the California Labor Code, which requires payment of prevailing wages. County has obtained the general prevailing rates, which will be on file with the County's Construction Manager and will be available to any interested party.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in the Labor Code, unless registered and qualified to perform public work pursuant to Labor Code section 1725.5.

The contractor and all subcontractors shall furnish certified payroll records as required pursuant Labor Code section 1776 directly to the Labor Commissioner in accordance with Labor Code section 1771.4 at least monthly (or more frequently if required by the County or the Labor Commissioner) and in a format prescribed by the Labor Commissioner. Monitoring and enforcement of the prevailing wage laws and related requirements will be performed by the Labor Commissioner/Department of Labor Standards Enforcement (DLSE), and by the County.

COUNTY OF RIVERSIDE

By: Carlos Cueva, Director of Facilities Design & Development, Riverside University Health System Medical Center, County of Riverside

Published: Cardiac Catheterization Laboratory – 02/02/2026

****End of Section****

DOCUMENT 00 21 13

INSTRUCTIONS TO BIDDERS

Bidders shall follow the instructions in this document, and shall submit all documents, forms, and information required for consideration of a Bid.

County of Riverside ("County") will evaluate information submitted by the apparent low bidder and, if incomplete or unsatisfactory to County, Bidder's bid may be rejected at the sole discretion of County.

1. Bids are requested for a prime construction contract, or work described in general, for the following project ("Project"):

   Project No. MC08430011869 – Cardiac Catheterization Laboratory - All Bid Categories (see Bid Category list below)

2. Clerk of the Board will receive sealed Bids from bidders as stipulated in the Notice to Bidders.

3. Bidders must submit Bids on the Bid Form and all other required County forms. Bids not submitted on the County's required forms shall be deemed non-responsive and shall not be considered. Additional sheets required to fully respond to requested information are permissible. The deadline to submit a request for information (RFI) is **March 04th, 2026**. RFI's may be submitted to CM-RUHS@bernards.com. Any supplemental instructions will be in the form of written addenda, which, when issued, will be posted via www.ruhealth.org/rfp-rfq not later than seventy-two (72) hours prior to the date fixed for the opening of bids. All addenda so issued shall become Part of the Contract and acknowledged by Bidder.

4. Bidders must supply all information required by each Bid Document. Bids must be full and complete. County reserves the right in its sole discretion to reject any Bid as non-responsive as a result of any error or omission in the Bid. Bidders must complete and submit all of the following documents with the Bid Form in the following order:
   a. 00 41 13 Bid Form
   b. 00 43 13 Bid Bond on the County's form or other security
   c. 00 43 36 Designated Subcontractor's List
   d. 00 45 01 Site-Visit Certification, if a site visit was required
   e. 00 45 19 Non-Collusion Declaration
   f. 00 45 46.11 Iran Contracting Act Certification
   g. 00 45 46.13 Verification of Contractor and Subcontractors' DIR Registration
   h. 00 45 46.14 Compliance with Economic Sanctions in Response to Russia's Actions in Ukraine

5. Bidders must submit with their Bids cash, a cashier's check or a certified check payable to County, or a Bid Bond by an admitted surety insurer of not less than ten percent (10%) of amount of base Bid, plus all additive alternates. If Bidder chooses to provide a Bid Bond as security, Bidder must use the required form of corporate surety provided by County (Document 004313 Bid Bond). The Surety on Bidder's Bid Bond must be an insurer admitted in the State of California and authorized to issue surety bonds in the State of California. Bids submitted without necessary bid security will be deemed non-responsive and will not be considered.

6. In-Use Off-Road Diesel-Fueled Fleet Certificate of Reported Compliance. Valid Certificates of Reported Compliance as described in California Code of Regulations, title 13, section 2449(n) for fleets of vehicles subject to 13 CCR section 2449 are required for this project.

7. If Bidder to whom the Project is awarded fails or neglects to enter into a written agreement ("Agreement") and submit required bonds, insurance certificates, and all other required documents, within **TEN (10)** calendar days after the date of the Notice of Award, County may deposit Bid Bond, cash, cashier's check, or certified check for collection, and proceeds thereof may be retained by County as liquidated damages for failure of Bidder to enter into the Agreement, in the sole discretion of County. It is agreed that calculation of damages County may suffer as a result of Bidder's failure to enter into the Agreement would be extremely difficult and impractical to determine and that the amount of the Bidder's required bid security shall be the agreed and conclusively presumed amount of damages. Bidders must submit with the Bid the Designated Subcontractors List for those subcontractors who will perform any portion of Work, including labor, rendering of service, or specially fabricating and installing a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of total Bid. Failure to submit this list when required by law shall result in the Bid being deemed non-responsive and the Bid will not be considered.

   a. Bidder must designate the name, address, license number and trade of ALL listed Subcontractors with the Bid Proposal. The listed Subcontractors' DIR registration number and the value of their trades or portions of the work must be submitted to the County within 24 hours after the public opening and reading of the Bids if not included in the original Subcontractors listing. The failure of any Bid Proposal to include all information required by the Subcontractors List will result in rejection of the Bid Proposal for non-responsiveness. Pursuant to Labor Code section 1725.5, all subcontractors (of any tier) performing work on this Project must be properly registered with DIR.

8. If a mandatory pre-bid conference and site visit ("Site Visit") is requested as referenced in the Notice to Bidders, then Bidders must submit the Site-Visit Certification with their Bid. County will transmit to all prospective Bidders of record such Addenda as County in its discretion considers necessary in response to questions arising at the Site Visit. Oral statements shall not be relied upon and will not be binding or legally effective. Addenda issued by the County as a result of the Site Visit, if any, shall constitute the sole and exclusive record and statement of the results of the Site Visit.

9. Bidders shall submit the Non-collusion Declaration with their Bids. Bids submitted without the Non-collusion Declaration shall be deemed non-responsive and will not be considered.

10. County reserves the right to reject any Bid containing Erasures, Deletions, Inconsistent or Illegible Bids. The bid submitted must not contain any erasures, interlineations, or other corrections unless each such correction creates no inconsistency and is suitably authenticated by affixing in the margin immediately opposite the correction the signature or signatures of the person or persons signing the bid. In the event of inconsistency between words and figures in the bid price, words shall control figures. In the event that the County determines that any bid is unintelligible, inconsistent, or ambiguous, the County may reject such bid as not being responsive to the Notice Inviting Bids.

11. Bidders shall not modify the Bid Form or qualify their Bids. Bidders shall not submit to the County a scanned, re-typed, word-processed, or otherwise recreated version of the Bid Form or other County-provided document.

12. The Bidder and all Subcontractors under the Bidder shall pay all workers on all work performed pursuant to the Agreement not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of

the County, pursuant to sections 1770 et seq. of the California Labor Code. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Agreement, as determined by Director of the State of California Department of Industrial Relations, are available on the internet at http://www.dir.ca.gov.

13. **[Reserved]**

14. In accordance with the provisions of California Public Contract Code §3300, the County requires that Bidders possess, at the time of submission of a Bid Proposal, at the time of award of a Contract for a Bid Package and at all times during the Work, the following classifications(s) of California Contractors License for each Bid Package, as set forth below. No payment shall be made for work, labor, materials or services provided under the Contract for the Work unless and until the Registrar of Contractors verifies to the County that the Bidder awarded the Contract is properly and duly licensed to perform the Work. Any Bidder not so duly and properly licensed shall be subject to all penalties imposed by law.

    Prequalification: The following Bid Categories as noted below have been pre-approved through a prequalification process as approved by the Board of Supervisors. Owner is not accepting any more prequalification for this bid.

Category #	Description	License
00	RUHS-00 General Requirements - All Bid Packages	All
01	RUHS-10 Misc. Specialties	A, B, C5
02	RUHS-02 Demo	A, B, C21
03	RUHS-03 Concrete	A, B, C8
04	RUHS-05 Structural Steel	A, B, C51
05	RUHS-06 Millwork	A, B, C6
06	RUHS-07 Roofing and Sheet Metal	A, B, C39, C43
07	RUHS-08 Doors Frames and Hardware	A, B, C5, C6
08	RUHS-08 Glazing	A, B, C17
09	RUHS-09 Framing, Drywall, Plaster and Shielding	A, B, C5, C9
10	RUHS -09 Acoustical Panel Ceilings	A, B, C5, C2
11	RUHS-09 Painting and Wall Covering	A, B, C5, C33
12	RUHS 09 Flooring and Tile	A, B, C15
13	RUHS-21 Fire Sprinkler	A, B, C16
14	RUHS-22 Plumbing	A, B, C36
15	RUHS-23 HVAC	A, B, C36
16	RUHS-26, 27, 29 Electrical and Low Voltage	A, B, C20

Prime Contractors may contract with second tier subcontractors and/or vendors of their choice. Second tier subcontractors and/or vendors are not subject to prequalification with the County of Riverside. Only trade contractors submitting bids directly to the County of Riverside for any of the trade categories stated above are subject to the pre-qualification requirements.

15. Submission of Bid signifies careful examination of Contract Documents and complete understanding of the nature, extent, and location of Work to be performed. Bidders must complete the tasks listed below as a condition to bidding, and submission of a Bid shall constitute the Bidder's express representation to County that Bidder has fully completed the following:

a. Bidder has visited the Site, and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Site, locality, actual conditions, as-built conditions, and all local conditions and federal, state and local laws, and regulations that in any manner may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto;

b. Bidder has conducted or obtained and has understood all examinations, investigations, explorations, tests, reports, and studies that pertain to the subsurface conditions, as-built conditions, underground facilities, and all other physical conditions at or contiguous to the Site or otherwise that may affect the cost, progress, performance, or furnishing of Work, as Bidder considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time, and in accordance with the other terms and conditions of Contract Documents, including specifically the provisions of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies, or similar information or data are or will be required by Bidder for such purposes;

c. Bidder has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents;

d. Bidder has given the County prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered in or among the Contract Documents and the actual conditions, and the written resolution thereof by the County is acceptable to Bidder;

e. Bidder has made a complete disclosure in writing to the County of all facts bearing upon any possible interest, direct or indirect, that Bidder believes any representative of the County or other officer or employee of the County presently has or will have in the Agreement or in the performance thereof or in any portion of the profits thereof;

f. Bidder must, prior to bidding, perform the work, investigations, research, and analysis required by this document and that Bidder represented in its Bid Form and the Agreement that it performed prior to bidding. Bidder under the Agreement is charged with all information and knowledge that a reasonable bidder would ascertain from having performed this required work, investigation, research, and analysis. Bid prices must include entire cost of all work "incidental" to completion of the Work.

g. Conditions Shown on the Contract Documents: Information as to underground conditions, as-built conditions, or other conditions or obstructions, indicated in the Contract Documents, e.g., on Drawings or in Specifications, has been obtained with reasonable care, and has been recorded in good faith. However, County only warrants, and Bidder may only rely, on the accuracy of limited types of information.

(1) As to above-ground conditions or as-built conditions shown or indicated in the Contract Documents, there is no warranty, expressed or implied, or any

representation express or implied, that such information is correctly shown or indicated. This information is verifiable by independent investigation and Bidder is required to make such verification as a condition to bidding. In submitting its Bid, Bidder shall rely on the results of its own independent investigation. In submitting its Bid, Bidder shall not rely on County-supplied information regarding above-ground conditions or as-built conditions.

(2) As to any subsurface condition shown or indicated in the Contract Documents, Bidder may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated. County is not responsible for the completeness of such information for bidding or construction; nor is County responsible in any way for any conclusions or opinions of Bidder drawn from such information; nor is the County responsible for subsurface conditions that are not specifically shown (for example, County is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown).

h. Conditions Shown in Reports and Drawings Supplied for Informational Purposes: Reference is made to the document entitled Geotechnical Data, and the document entitled Existing Conditions, for identification of:

(1) Subsurface Conditions: Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been utilized by Architect in preparing the Contract Documents; and

(2) Physical Conditions: Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that has been utilized by Architect in preparing the Contract Documents.

(3) These reports and drawings are **not** Contract Documents and, except for any "technical" data regarding subsurface conditions specifically identified in Geotechnical Data and Existing Conditions, and underground facilities data, Bidder may not in any manner rely on the information in these reports and drawings. Subject to the foregoing, Bidder must make its own independent investigation of all conditions affecting the Work and must not rely on information provided by County.

16. Bidders may examine any available "as-built" drawings of previous work by giving County reasonable advance notice. County will not be responsible for accuracy of "as-built" drawings. The document entitled Existing Conditions applies to all supplied "as-built" drawings.

17. All questions about the meaning or intent of the Contract Documents are to be directed in writing through the Construction Manager. Interpretations or clarifications considered necessary by the County in response to such questions will be issued in writing by Addenda emailed, faxed, mailed, or delivered to all parties recorded by the County as having received the Contract Documents. Questions received less than **SEVEN (7)** calendar days prior to the date for opening Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. Addenda may also be issued to modify other parts of the Contract Documents as deemed advisable by the County.

18. Each Bidder must acknowledge each Addendum in its Bid Form by number or its Bid shall be considered non-responsive. Each Addendum shall be part of the Contract Documents. A complete listing of Addenda may be secured from the County.

19. Bids shall be based on products and systems specified in Contract Documents or listed by name in Addenda. Whenever in the Specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be followed by the words "or equal." Bidder may, unless otherwise stated, offer any material, process, or article that shall be substantially equal or better in every respect to that so indicated or specified. The County is not responsible and/or liable in any way for a Bidder's damages and/or claims related, in any way, to that Bidder's basing its bid on any requested substitution that the County has not approved. Bidders and materials suppliers who submit requests for substitutions prior to the award of the Project must do so in writing and in compliance with Public Contract Code section 3400. All requests must comply with the following:

    a. County must receive any request for substitution a minimum of **SEVEN (7)** calendar days prior to bid opening.

    b. Requests for substitutions shall contain sufficient information to assess acceptability of product or system and impact on Project, including, without limitation, the requirements specified in the Special Conditions and the Specifications. Insufficient information shall be grounds for rejection of substitution.

    c. Approved substitutions shall be listed in Addenda. County reserves the right not to act upon submittals of substitutions until after bid opening.

    d. Substitutions may be requested after Contract has been awarded only if indicated in and in accordance with requirements specified in the Special Conditions and the Specifications.

20. All Bids must be sealed and marked with name and address of the Bidder and the Project Number, Bid number, Bid package, and time of bid opening. Bids will be received as indicated in the Notice to Bidders.

    a. Mark envelopes with the name of the Project.

    b. Bids must be submitted to the **Clerk of the Board located on the 1st Floor of the County Administrative Center, 4080 Lemon Street, Riverside, CA 92501** by date and time shown in the Notice to Bidders.

    c. Bids must contain all documents as required herein.

21. Bids will be opened at or after the time indicated for receipt of bids.

22. The Agreement may include alternates. Alternates are defined as alternate products, materials, equipment, systems, methods, or major elements of the construction that may, at the County's option and under terms established in the Agreement and pursuant to section 20103.8 of the Public Contract Code, be selected for the Work.

23. The County shall award the Project, if it awards it at all, to the lowest responsive responsible bidder based on the criteria as indicated in the Notice to Bidders. In the event two or more responsible bidders submit identical bids, the County shall select the Bidder to whom to award the Project by lot.

24. Time for Completion: County may issue a Notice to Proceed within **THREE (3)** months from the date of the Notice of Award. Once Bidder has received the Notice to Proceed, Bidder shall complete the Work within the period of time indicated in the Contract Documents.

    a. In the event that the County desires to postpone issuing the Notice to Proceed beyond this three (3) month period, it is expressly understood that with reasonable notice to the Bidder, the County may postpone issuing the Notice to Proceed.

b. It is further expressly understood by Bidder that Bidder shall not be entitled to any claim of additional compensation as a result of the postponement of the issuance of the Notice to Proceed beyond a three (3) month period. If the Bidder believes that a postponement of issuance of the Notice to Proceed will cause a hardship to the Bidder, the Bidder may terminate the Agreement. Bidder's termination due to a postponement beyond this three (3) month period shall be by written notice to County within **TEN (10)** calendar days after receipt by Bidder of County's notice of postponement.

c. It is further understood by the Bidder that in the event that Bidder terminates the Agreement as a result of postponement by the County, the County shall only be obligated to pay Bidder for the Work that Bidder had performed at the time of notification of postponement and which the County had in writing authorized Bidder to perform prior to issuing a Notice to Proceed.

d. Should the Bidder terminate the Agreement as a result of a notice of postponement, County shall have the authority to award the Agreement to the next lowest responsive responsible bidder.

25. The Bidder to whom the Project is awarded shall execute and submit the following documents by 5:00 p.m. of the **TENTH (10TH)** calendar day following the date of the Notice of Award. Failure to properly and timely submit these documents entitles County to reject the bid as non-responsive.

a. Agreement: To be executed by successful Bidder. Submit four (4) copies, each bearing an original signature.

b. Escrow of Bid Documentation: This must include all required documentation. See the document Escrow of Bid Documentation for more information.

c. Performance Bond (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.

d. Payment Bond (100%) (Bidder's Labor and Material Bond): On the form provided in the Contract Documents and fully executed as indicated on the form.

e. Insurance Certificates and Endorsements as required.

f. Workers' Compensation Certification.

g. Prevailing Wage and Related Labor Requirements Certification. Disabled Veterans' Business Enterprise Participation Certification.

h. Drug-Free Workplace Certification.

i. In-Use Off-Road Diesel-Fueled Fleet Certificate of Reported Compliance

j. Hazardous Materials Certification.

k. [RESERVED]

l. Imported Materials Certification.

26. Bid Protests: Any bid protest by any bidder regarding any other bid received must be submitted in writing to the County's Project Manager before 4:30 p.m. within three (3) business days following the Notice of Intent to Award, provided that each and all of the following are complied with:

a. Only a bidder who has actually submitted a bid, and who could be awarded a contract if the bid protest is upheld, is eligible to submit a bid protest. Subcontractors are not eligible to submit bid protests. A bidder may not rely on the bid protest submitted by another bidder.

b. The written bid protest shall set forth, in detail, all grounds for the bid protest, including, without limitation, all facts, supporting documentation, legal authorities, and arguments in support of the grounds for the bid protest. Any matters not set forth in the written bid protest shall be deemed waived. All factual contentions must be supported by competent, admissible and credible evidence. Any bid protest not conforming with the foregoing shall be rejected by the County as invalid. Materials or information submitted after the bid protest deadline will not be considered.

c. The bidder's protest must refer to the specific portions of all documents that form the basis for the protest.

d. The bidder's protest must include the legal name, address, and license number of the company submitting the bid protest, as well as the telephone number, fax number, and email address of the person representing the protesting party.

e. The party filing the protest must concurrently transmit a copy of the protest and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the bidder's protest. Such parties shall include all other bidders or proposers who appear to have a reasonable prospect of receiving an award of contract depending upon the outcome of the protest.

f. Provided that a bid protest is filed in strict conformity with the foregoing, the Project Manager for the County or designee shall review and evaluate the basis of the bid protest. The Project Manager or designee shall provide the bidder submitting the bid protest with a written statement concurring with or denying the bid protest.

g. A bidder may appeal the decision of the Project Manager for the County or designee to the Project Manager for the County within three (3) business days of notification thereof. The bidder's appeal shall conform to the requirements as noted in Items a through e above. Any appeal not conforming with the foregoing shall be rejected by the County as invalid.

h. Provided that a bidder's appeal to the County's decision is filed in strict conformity with the foregoing, the County shall review and evaluate the basis for the bidder's appeal. The County shall provide the bidder submitting the appeal a written statement concurring with or rescinding the County's determination of the bidder's bid protest, which shall be a final determination of the County.

i. The procedure and time limits set forth in this procedure are mandatory and are each bidder's sole and exclusive remedy in the event of bid protest. Failure to comply with these procedures shall constitute a waiver of any right to further pursue a bid protest, including filing a Government Code claim or legal proceedings.

j. The rendition of written statements by the County to adopt, modify, or reject the disposition of the bid protest or appeals reflected in such written statements shall be the expressed conditions precedent to the County of any legal or equitable proceedings relative to the bidding process, the County's award of a contract, the County's disposition of any bid protest, or the County's decision to reject all bids. In the event that any such legal or equitable proceedings are instituted and the County is named as a party thereto, the prevailing party(ies) shall recover from the other party(ies), as costs, all attorneys' fees and costs incurred in connection with any such proceeding, including any appeal arising therefrom.

27. County reserves the right to reject any or all bids, including without limitation the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional bids, to re-bid, and to reject the bid of any bidder if County believes that it would not be in the best interest of the County to make an award to that bidder, whether because the bid is not responsive or the bidder is unqualified or of doubtful financial ability or fails to meet any

other pertinent standard or criteria established by County. County also reserves the right to waive inconsequential deviations not involving price, time, or changes in the Work. For purposes of this paragraph, an "unbalanced bid" is one having nominal prices for some work items and/or enhanced prices for other work items.

28. Discrepancies between written words and figures, or words and numerals, will be resolved in favor of words over figures and/or numerals.

29. Prior to the award of the Project, County reserves the right to consider the responsibility of the Bidder. County may conduct investigations as County deems necessary to assist in the evaluation of any bid and to establish the responsibility, including, without limitation, qualifications and financial ability of Bidders, proposed subcontractors, suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to County's satisfaction within the prescribed time.

30. [RESERVED]

31. DIR Registration of Contractor and Subcontractors. A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in the Labor Code, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

32. This Project is a public works project as defined in Labor Code section 1720. Each contractor bidding on this Project and all subcontractors (of any tier) performing any portion of the Work must comply with the Labor Code sections 1725.5 and 1771.1 and must be properly and currently registered with the California Department of Industrial Relations ("DIR") and qualified to perform public works pursuant to Labor Code section 1725.5 throughout the duration of the Project. For more information and up to date requirements, contractors are recommended to periodically review the DIR's website at www.dir.ca.gov. Contractor shall be solely responsible for ensuring compliance with Labor Code section 1725.5 as well as any requirements implemented by DIR applicable to its services or its subcontractors throughout the term of the Agreement and in no event shall contractor be granted increased payment from the County or any time extensions to complete the Project as a result of contractor's efforts to maintain compliance with the Labor Code or any requirements implemented by the DIR. Failure to comply with these requirements shall be deemed a material breach of this Agreement and grounds for termination for cause. The contractor and all subcontractors shall furnish certified payroll records as required pursuant to Labor Code section 1776 directly to the Labor Commissioner in accordance with Labor Code section 1771.4 on at least a monthly basis (or more frequently if required by the County or the Labor Commissioner) and in a format prescribed by the Labor Commissioner. The County reserves the right to withhold contract payments if the County is notified, or determines as the result of its own investigation, that contractor is in violation of any of the requirements set forth in Labor Code section 1720 et seq. at no penalty or cost to the County. Monitoring and enforcement of the prevailing wage laws and related requirements will be performed by the Labor Commissioner/ Department of Labor Standards Enforcement (DLSE), and by the County.

33. Bidders shall submit the Verification of Contractor and Subcontractors' DIR Registration Form with their Bids. Bidder's submitting Bids without this Form shall be granted a 24 hour grace period to provide proof of DIR Registration. Failure to provide the DIR Registration Verification within the 24 hour grace period shall deem their bid as non-responsive.

END OF DOCUMENT

DOCUMENT 00 41 13

BID FORM

To: Governing Board of the County of Riverside ("County")

From: _____

(Proper Name of Bidder)

PROJECT: _____

The undersigned declares that the Contract Documents including, without limitation, the Notice to Bidders and the Instructions to Bidders have been read and agrees and proposes to furnish all necessary labor, materials, equipment, and services to perform and furnish all work in accordance with the terms and conditions of the Contract Documents, including, without limitation, the Drawings and Specifications of **Project No. MC08430011869 Cardiac Catheterization Laboratory** ("Project") and will accept in full payment for that Work the following total lump sum amount, all taxes and mark up included:

Bid Category No. _____

Description: _____

A. Base Bid (Includes all General Conditions/Requirements, Mark-Up, Bonds, Insurance, etc. for Allowances**:**

Allowance No. _____Description:_____

Amount: $_____

Written Dollars _____

B. Allowances (Actual Amount of Allowance Only. All General Conditions / Requirements, Mark-Up, Bonds, Insurance, etc. for Allowances to be included in Base Bid Above).

Allowance No. _____Description:_____

Amount: $_____

Written Dollars _____

C. Total Bid Amount (Base Bid plus all Allowances – Items A and B Above):

Allowance No. _____Description:_____

Amount: $_____

Written Dollars _____

NOTE: Alternate Bids are <u>not</u> to be included in the Total Bid Amount Above.

[IF APPLICABLE] Additive/Deductive Alternates: (Refer to the Scope of Work Summaries – If Unit Price Alternate, please List the Cost per Units (Example $/Square Foot).

Descriptions of alternates are primarily scope definitions and do not necessarily detail the full range of materials and processes needed to complete the construction.

Alternate #_____ Description _____

Amount: $_____

Written Dollars _____

Alternate #_____ Description _____

Amount: $_____

Written Dollars _____

Alternate #_____ Description _____

Amount: $_____

Written Dollars _____

NOTE: The Bidder confirms that it has checked all the above figures and understands that neither the County nor any of its agents, employees or representatives shall be responsible for any errors or omissions on the part of the undersigned in preparing and submitting this Bid Form.

1. The undersigned has reviewed the Work outlined in the Contract Documents and fully understands the scope of Work required in this Bid, understands the construction and project management function(s) as described in the Contract Documents, and that each Bidder who is awarded a contract shall be in fact a prime contractor, not a subcontractor, to the County, and agrees that its Bid, if accepted by the County, will be the basis for the Bidder to enter into a contract with the County in accordance with the intent of the Contract Documents.

2. The undersigned has notified the County in writing of any discrepancies or omissions or of any doubt, questions, or ambiguities about the meaning of any of the Contract Documents and has contacted the Construction Manager before bid date to verify the issuance of any clarifying Addenda.

3. The undersigned agrees to commence work under this Contract on the date established in the Contract Documents and to complete all work within the time specified in the Contract Documents.

4. The liquidated damages clause of the Supplemental General Conditions and Agreement is hereby acknowledged.

5. The undersigned acknowledges that [five percent (5%)] retention is required for this Project.

6. It is understood that the County reserves the right to reject this bid and that the bid shall remain open to acceptance and is irrevocable for a period of ninety (90) days.

7. The following documents are attached hereto and in the following order:

- 00 41 13 - Bid Form
- 00 43 13 - Bid Bond on the County's form or other security
- 00 43 36 - Designated Subcontractors List
- 00 45 01 - Site-Visit Certification, if a site visit was required
- 00 45 19 – Non-collusion Declaration
- 00 45 46.11 - Iran Contracting Act Verification
- 00 45 46.13 - Verification of Contractor and Subcontractors' DIR Registration
- 00 45 46.14 - Compliance with Economic Sanctions in Response to Russia's Actions in Ukraine

8. Receipt and acceptance of the following addenda is hereby acknowledged:

No.___, Dated _____	No.___, Dated _____
No.___, Dated _____	No.___, Dated _____
No.___, Dated _____	No.___, Dated _____

9. The undersigned hereby certifies that Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work.

10. The Bidder represents that it is competent, knowledgeable, and has special skills with respect to the nature, extent, and inherent conditions of the Work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the Work that may create, during the Work, unusual or peculiar unsafe conditions hazardous to persons and property.

11. Bidder expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the Work with respect to such hazards.

12. Bidder expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Cal. Gov. Code, §12650 et seq.), the County will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the Contractor may be subject to criminal prosecution.

13. The undersigned Bidder certifies that it is, and shall be throughout the period of the contract, licensed by the State of California to do the type of work required under the terms of the Contract Documents. Bidder further certifies that it is regularly engaged in the general class and type of work called for in the Contract Documents.

Furthermore, Bidder hereby certifies to the County that all representations, certifications, and statements made by Bidder, as set forth in this bid form, are true and correct and are made under penalty of perjury.

Dated this _____ day of _____ 20 ___

Name of Bidder _____

Type of Entity [Corp., LLC, etc.] _____

Signature of Bidder _____

Name & Title of Signer _____

Address of Bidder _____

Taxpayer's Identification No. of Bidder _____

Telephone Number _____

Fax Number _____

E-mail _____ Web page _____

Contractor's License No(s): No.: _____ Class: _____ Expiration Date:_____

No.: _____ Class: _____ Expiration Date:_____

No.: _____ Class: _____ Expiration Date:_____

Contractor's DIR Registration No.: _____

If Bidder is a corporation, affix corporate seal.

Name of Corporation: _____

President: _____

Secretary: _____

Treasurer: _____

Manager: _____

END OF DOCUMENT

DOCUMENT 00 43 13

BID BOND

(Note: If Bidder is providing a bid bond as its bid security, Bidder must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, _____ as Principal ("Principal"),

and _____ as Surety ("Surety"),
a corporation organized and existing under and by virtue of the laws of the State of _____
and authorized to do business as a surety in the State of California, are held and firmly bound unto the County of Riverside ("County") of Riverside County, State of California as Obligee, in the sum of

_____ Dollars ($ _____)

lawful money of the United States of America, for the payment of which sum well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a bid to the County for all Work specifically described in the accompanying bid;

NOW, THEREFORE, if the Principal is awarded the Project and, within the time and manner required under the Contract Documents, after the prescribed forms are presented to Principal for signature, enters into a written contract ("Agreement"), in the prescribed form in accordance with the bid, and files two bonds, one guaranteeing faithful performance and the other guaranteeing payment for labor and materials as required by law, and meets all other conditions to the contract between the Principal and the Obligee becoming effective, or if the Principal shall fully reimburse and save harmless the Obligee from any damage sustained by the Obligee through failure of the Principal to enter into the Agreement and to file the required performance and labor and material bonds, and to meet all other conditions to the Agreement between the Principal and the Obligee becoming effective, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. The full payment of the sum stated above shall be due immediately if Principal fails to execute the Agreement within ten (10) days of the date of the County's Notice of Award to Principal.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement or the call for bids, or to the work, or to the specifications.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorneys' fee to be fixed by the Court.

If the County awards the bid, the security of unsuccessful bidder(s) shall be returned within ninety (90) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

IN WITNESS WHEREOF, this instrument has been duty executed by the Principal and Surety above named, on the _____day of_____, 20___.

(Affix Corporate Seal)

_____
Principal

_____
By

(Affix Corporate Seal)

_____
Surety

_____
By

_____
Name of California Agent of Surety

_____
Address of California Agent of Surety

_____
Telephone Number of California Agent of Surety

Bidder must attach Power of Attorney and Certificate of Authority for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

END OF DOCUMENT

DOCUMENT 00 43 36

DESIGNATED SUBCONTRACTORS LIST

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

PROJECT: **No. MC08430011869 – Cardiac Catheterization Laboratory**

Bidder Qualifications: Bidders wishing to bid as a prime contractor and/or work on selected trades on this Project must have been previously pre-qualified by the County of Riverside in one or more of the following categories:

Please refer to 00 21 13-Instructions to Bidder for a complete list of prequalified trades. Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., it must clearly set forth below the name and location of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Work in an amount in excess of one-half of one percent (0.5%) of Bidder's total Bid and the kind of Work that each will perform. Furthermore, Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., if Bidder fails to list as to any portion of Work, or if Bidder lists more than one subcontractor to perform the same portion of Work, Bidder must perform that portion itself or be subjected to penalty under applicable law.

If alternate bids are called for and Bidder intends to use subcontractors different from or in addition to those subcontractors listed for work under the base Bid, Bidder must list subcontractors that will perform Work in an amount in excess of one half of one percent (0.5%) of Bidder's total Bid, including alternates.

In case more than one subcontractor is named for the same kind of Work, state the portion of Work that each subcontractor will perform.

Vendors or suppliers of materials only do not need to be listed.

If further space is required for the list of proposed subcontractors, additional sheets showing the required information, as indicated below, shall be attached hereto and made a part of this document.

All subcontractors (of any tier) performing any portion of the Work must comply with the Labor Code sections 1725.5 and 1771.1 and must be properly and currently registered with the California Department of Industrial Relations and qualified to perform public works pursuant to Labor Code section 1725.5 throughout the duration of the Project.

Bidder shall have twenty four (24) hours to submit the **additional subcontractor list information** after the public opening of the bid pursuant to Public Contract Code section 4104. Please refer to the items identified with the "*****". The "*****" indicates which items that are allowed to be submitted within 24 hours. All other information **must** be provided at the time of the bid.

Subcontractor Name:	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
Subcontractor Name:	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
Subcontractor Name:	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
Subcontractor Name:	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
Subcontractor Name:	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	

Subcontractor Name:	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
Subcontractor Name:	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
Subcontractor Name:	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
Subcontractor Name:	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
Subcontractor Name:	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	

Subcontractor Name:	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	

This form must be executed and returned with bid proposal even if no subcontractors are listed: Date:
Proper Name of Bidder:
Signature:
Print Name:
Title:

* **This information must be provided at the time of submission of bid or must be provided within 24 hours after the time set for the opening of bids. Bidders who choose to provide this information within 24 hours after the time set for the opening of bids are solely responsible to ensure the County receives this information in a timely manner. The County is not responsible for any problems or delays associated with emails, faxes, delivery, etc. Absent a verified fax or email receipt date and time by the County, the County's determination of whether the information was received timely shall govern and be determinative. Bidder shall not revise or amend any other information in this form submitted at the time of bid. The information submitted at the time of bid shall govern over any conflicts, discrepancies, ambiguities, or other differences in any subsequent Designated Subcontractors List submitted by the bidder.**

END OF DOCUMENT

DOCUMENT 00 45 01

SITE VISIT CERTIFICATION

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
REGARDLESS IF SITE VISIT WAS MANDATORY OR NOT

PROJECT: **Cardiac Catheterization Laboratory**

Check option that applies:

I certify that _____ (Bidder's representative) visited the Site of the proposed Work and became fully acquainted with the conditions relating to construction and labor. The Bidder's representative fully understood the facilities, difficulties, and restrictions attending the execution of the Work under contract.

Bidder fully indemnifies the County of Riverside, its Architect, its Engineer, its Construction Manager, and all of their respective officers, agents, employees, and consultants from any damage, or omissions, related to conditions that could have been identified during my visit and/or the Bidder's representative's visit to the Site.

I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

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DOCUMENT 00 45 19

NON-COLLUSION DECLARATION
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
Public Contract Code Section 7106

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid ("Bidder").

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham bid. The Bidder has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham bid, or to refrain from bidding. The Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other Bidder. All statements contained in the bid are true. The Bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a Bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the Bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [date], at _____ [city], _____ [state]."

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

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DOCUMENT 00 45 26

WORKER'S COMPENSATION CERTIFICATION

PROJECT/CONTRACT NO.: _____ between the County of Riverside ("County") and _____ ("Bidder") ("Project").

Labor Code section 3700, in relevant part, provides:

> Every employer except the State shall secure the payment of compensation in one or more of the following ways:
>
> a. By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this state; and/or
>
> b. By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees.

I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Project.

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____ Title:

_____

(In accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, the above Certificate must be signed and filed with the awarding body prior to performing any Work under this Project.)

END OF DOCUMENT

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DOCUMENT 00 45 46.01

PREVAILING WAGE AND
RELATED LABOR REQUIREMENTS CERTIFICATION

PROJECT/CONTRACT NO.: _____ between the County of Riverside ("County") and _____ ("Bidder") ("Project").

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hours' notice, payroll records, and apprentice and trainee employment requirements, for all Work on the above Project.

I hereby certify that Bidder and all subcontractors of any tier will be properly registered with the Department of Industrial Relations in accordance with Labor Code section 1725.5 at all times during performance of the Work.

I hereby certify that Bidder and all subcontractors (of any tier) shall furnish certified payroll records as required pursuant Labor Code section 1776 directly to the Labor Commissioner in accordance with Labor Code section 1771.4 on at least on a monthly basis (or more frequently if required by the County or the Labor Commissioner) and in a format prescribed by the Labor Commissioner.

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____ Title:

_____

END OF DOCUMENT

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DOCUMENT 00 45 46.03

DRUG-FREE WORKPLACE CERTIFICATION

PROJECT/CONTRACT NO.: _____ between the County of Riverside ("County") and _____ ("Bidder") ("Project").

This Drug-Free Workplace Certification form is required from the successful Bidder pursuant to Government Code section 8350 et seq., the Drug-Free Workplace Act of 1990 ("Act"). The Drug-Free Workplace Act of 1990 requires that every person or organization awarded a contract or grant for the procurement of any property or service from any state agency must certify that it will provide a drug-free workplace by doing certain specified acts. In addition, the Act provides that each contract or grant awarded by a state agency may be subject to suspension of payments or termination of the contract or grant, and the contractor or grantee may be subject to debarment from future contracting, if the contracting agency determines that specified acts have occurred.

The County is not a "state agency" as defined in the applicable section(s) of the Government Code, but the County is a local agency under California law and requires all contractors on County projects to comply with the provisions and requirements of Government Code section 8350 et seq., the Drug-Free Workplace Act of 1990.

Bidder shall certify that it will provide a drug-free workplace by doing all of the following:

a. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person's or organization's workplace and specifying actions which will be taken against employees for violations of the prohibition.

b. Establishing a drug-free awareness program to inform employees about all of the following:

   (1) The dangers of drug abuse in the workplace.
   (2) The person's or organization's policy of maintaining a drug-free workplace.
   (3) The availability of drug counseling, rehabilitation, and employee-assistance programs.
   (4) The penalties that may be imposed upon employees for drug abuse violations.

c. Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required above, and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.

I, the undersigned, agree to fulfill the terms and requirements of Government Code section 8355 listed above and will publish a statement notifying employees concerning (a) the prohibition of controlled substance at the workplace, (b) establishing a drug-free awareness program, and (c) requiring that each employee engaged in the performance of the Contract be given a copy of the statement required by section 8355(a), and requiring that the employee agree to abide by the terms of that statement.

I also understand that if the County determines that I have either (a) made a false certification herein, or (b) violated this certification by failing to carry out the requirements of section 8355, that the Contract awarded herein is subject to termination, suspension of payments, or both. I further understand that, should I violate the terms of the Drug-Free Workplace Act of 1990, I may be subject to debarment in accordance with the requirements of the aforementioned Act.

I acknowledge that I am aware of the provisions of Government Code section 8350 et seq. and hereby certify that I will adhere to the requirements of the Drug-Free Workplace Act of 1990.

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 46.05

HAZARDOUS MATERIALS CERTIFICATION

PROJECT/CONTRACT NO.: _____("Project") between the County of Riverside ("County") and _____ ("Contractor").

1. Contractor hereby certifies that no Asbestos, or Asbestos-Containing Materials, polychlorinated biphenyl (PCB), or any material listed by the federal or state Environmental Protection Agency or federal or state health agencies as a hazardous material, or any other material defined as being hazardous under federal or state laws, rules, or regulations ("New Hazardous Material"), shall be furnished, installed, or incorporated in any way into the Project or in any tools, devices, clothing, or equipment used to affect any portion of Contractor's work on the Project for the County.

2. Contractor further certifies that it has instructed its employees with respect to the above-mentioned standards, hazards, risks, and liabilities.

3. Asbestos and/or asbestos-containing material shall be defined as all items containing but not limited to chrysotile, crocidolite, amosite, anthophyllite, tremolite, and actinolite. Any or all material containing greater than one-tenth of one percent (0.1%) asbestos shall be defined as asbestos-containing material.

4. Any disputes involving the question of whether or not material is New Hazardous Material shall be settled by electron microscopy or other appropriate and recognized testing procedure, at the County's determination. The costs of any such tests shall be paid by Contractor if the material is found to be New Hazardous Material.

5. All Work or materials found to be New Hazardous Material or Work or material installed with equipment containing "New Hazardous Material" will be immediately rejected and this Work will be removed at Contractor's expense at no additional cost to the County.

6. Contractor has read and understood the document Hazardous Materials Procedures & Requirements, and shall comply with all the provisions outlined therein.

Date:_____

Proper Name of Contractor: _____

Signature:_____

Print Name:_____

Title:_____

END OF DOCUMENT

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DOCUMENT 00 45 46.11

IRAN CONTRACTING ACT CERTIFICATION

PROJECT/CONTRACT NO.: _____ between the County of Riverside ("County") and _____ ("Contractor" or Bidder").

Prior to bidding on or submitting a proposal for a contract for goods or services of $1,000,000 or more to the County, the Bidder must either: a) certify it is not on the current list of persons engaged in investment activities in Iran created by the California Department of General Services ("DGS") pursuant to Public Contract Code section 2203(b) and is not a financial institution extending twenty million dollars ($20,000,000) or more in credit to another person, for 45 days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS; or b) demonstrate it has been exempted from the certification requirement for that solicitation or contract pursuant to Public Contract Code section 2203(c) or (d).

To comply with this requirement, please insert your vendor or financial institution name and Federal ID Number (if available) and complete one of the options below. Please note: California law establishes penalties for providing false certifications, including civil penalties equal to the greater of $250,000 or twice the amount of the contract for which the false certification was made; contract termination; and three-year ineligibility to bid on contracts. (Public Contract Code section 2205.)

OPTION #1 – THIS PROJECT IS LESS THAN $1,000,000. THIS CERTIFICATION IS N/A.

OPTION #2 - CERTIFICATION

I, the official named below, certify I am duly authorized to execute this certification on behalf of the vendor/financial institution identified below, and the vendor/financial institution identified below is not on the current list of persons engaged in investment activities in Iran created by DGS and is not a financial institution extending twenty million dollars ($20,000,000) or more in credit to another person/vendor, for 45 days or more, if that other person/vendor will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.

Vendor Name/Financial Institution (Printed)	*Federal ID Number (or n/a)*
By (Authorized Signature)	
Printed Name and Title of Person Signing	
Date Executed	*Executed in*

OPTION #3 – EXEMPTION

Pursuant to Public Contract Code sections 2203(c) and (d), a public entity may permit a vendor/financial institution engaged in investment activities in Iran, on a case-by-case basis, to be eligible for, or to bid on, submit a proposal for, or to enter into or to renew, a contract for goods and services.

If you have obtained an exemption from the certification requirement under the Iran Contracting Act, please fill out the information below, and attach documentation demonstrating the exemption approval.

Vendor Name/Financial Institution (Printed)	*Federal ID Number (or n/a)*
By (Authorized Signature)	
Printed Name and Title of Person Signing	*Date Executed*

END OF DOCUMENT

DOCUMENT 00 45 46.13

VERIFICATION OF CONTRACTOR AND SUBCONTRACTORS' DIR REGISTRATION

I am the _____ of ("Bidder") _____ submitting the
(Title/Position) (Bidder Name)

accompanying Bid for the work described as _____.

1. The Bidder is currently registered as a contractor with the Department of Industrial Relations ("DIR").

2. The Bidder's DIR Registration Number is: _____. The expiration date of the Bidder's DIR Registration is June 30, 20____.

3. If the Bidder is awarded the Contract for the Work and the expiration date of the Bidder's DIR Registration will occur: (i) prior to expiration of the Contract Time for the Work; or (ii) prior to the Bidder completing all obligations under the Contract for the Work, the Bidder will take all measures necessary to renew the Bidder's DIR Registration so that there is no lapse in the Bidder's DIR Registration while performing Work under the Contract.

4. The Bidder, if awarded the Contract for the Work will remain a DIR registered contractor for the entire duration of the Work.

5. The Bidder has independently verified that each Subcontractor identified in the Subcontractors List submitted with the Bid of the Bidder is currently a DIR registered contractor.

6. The Bidder has provided the DIR Registration Number for each subcontractor identified in the Bidder's Subcontractors' List or within twenty-four (24) hours of the opening of Bid Proposals for the Work, the Bidder will provide the County with the DIR Registration Number for each subcontractor identified in the Bidder's Subcontractors List.

7. The Bidder's solicitation of subcontractor bids included notice to prospective subcontractors that: (i) all sub-tier subcontractors must be DIR registered contractors at all times during performance of the Work; and (ii) prospective subcontractors may only solicit sub-bids from and contract with lower-tier subcontractors who are DIR registered contractors.

8. If any of the statements herein are false or omit material facts rendering a statement to be false or misleading, the Bidder's Bid is subject to rejection for non-responsiveness.

9. I have personal first hand-knowledge of all of the foregoing.

I declare under penalty of perjury under California law that the foregoing is true and correct.
Executed this _____ day of _____, 20____ at_____
(City and State)

_____
(Signature)

_____
(Name, typed or printed)

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DOCUMENT 00 45 46.14

COMPLIANCE WITH ECONOMIC SANCTIONS IN RESPONSE TO RUSSIA'S ACTIONS IN UKRAINE

Prior to bidding on, submitting a proposal, or executing a contract, a contractor must certify: 1) it is not a target of economic sanctions and 2) in compliance with economic sanctions imposed by the U.S. government in response to Russia's actions in Ukraine, as well as any requirements related to the Russian sanctions imposed by the California Governor's Executive Order N-6-22 issued on March 4, 2022 and under state law, if any.

To comply with this requirement, please insert the contractor's name and Federal ID Number (if available), complete the information described below and execute by an authorized representative of the contractor.

CERTIFICATION

I, the authorized representative for contractor named below, certify I am duly authorized to execute this certification on behalf of the contractor below, and the contractor identified below has conducted a good faith review of existing contracts. I attest that the contractor is not a target of economic sanctions, and that contractor is in compliance with the economic sanctions imposed by the U.S. government in response to Russia's actions in Ukraine, as well as any requirements related to the Russian sanctions imposed by the California Governor's Executive Order N-6-22 issued on March 4, 2022 and under state law, if any.

Contractor Name (Printed)	*Federal ID Number (or n/a)*
By (Authorized Signature)	
Printed Name and Title of Person Signing	
Date	

PROJECT Cardiac Catheterization Laboratory **/BID NO.:**_____

DATE OF CONTRACT:_____**/CONTRACT NO.:**_____

DOLLAR VALUE:_____

LIQUIDATED DAMAGES:_____

CONTRACTOR:_____

TERM:_____

TIME FOR COMPLETION:_____

AGREEMENT FORM

THIS AGREEMENT IS MADE AND ENTERED INTO THIS _____ DAY OF _____, **20**_____, by and between the **County of Riverside** ("County") and _____ ("Contractor") ("Agreement").

WITNESSETH: That the parties hereto have mutually covenanted and agreed, and by these presents do covenant and agree with each other, as follows:

1. The Work: Contractor agrees to furnish all tools, equipment, apparatus, facilities, labor, and material necessary to perform and complete in a good and workmanlike manner, the work of the following project:

PROJECT: **Cardiac Catheterization Laboratory** ("Project)

It is understood and agreed that the Work shall be performed and completed as required in the Contract Documents including, without limitation, the Drawings and Specifications, under the direction and supervision of, and subject to, the approval of the County or its authorized representative.

2. The Contract Documents: The complete Agreement consists of all Contract Documents as defined in the General Conditions and incorporated herein by this reference. Any and all obligations of the County and Contractor are fully set forth and described in the Contract Documents. All Contract Documents are intended to cooperate so that any Work called for in one and not mentioned in the other or vice versa is to be executed the same as if mentioned in all Contract Documents.

3. Interpretation of Contract Documents: Should any question arise concerning the intent or meaning of Contract Documents, including the Drawings or Specifications, the question shall be submitted to the County for interpretation. If a conflict exists in the Contract Documents, modifications, beginning with the most recent, shall control over this Agreement (if any), which shall control over the Special Conditions, which shall control over any Supplemental Conditions, which shall control over the General Conditions, which shall control over the remaining Division 0 documents, which shall control over Division 1 Documents which shall control over Division 2 through Division 33 documents, which shall control over figured dimensions, which shall control over large-scale drawings, which shall control over small-scale drawings. In no case shall a document calling for lower quality and/or quantity material or workmanship control. The decision of the County in the matter shall be final.

4. Time for Completion: The County may give notice to proceed within ninety (90) days of the award of the bid by the County. Refer to Section 01 32 16 for completion time line expectations from receipt of the Notice to Proceed. This shall be called Contract Time. It is expressly understood that time is of the essence.

5. Coordination of Work: Should the Contractor fail to complete this Project, and the Work provided herein, within the time fixed for completion, due allowance being made for the contingencies provided for herein, the Contractor shall become liable to the County for all loss and damage that the County may suffer on account thereof. The Contractor shall coordinate its Work with the work of all other contractors. The County shall not be liable for delays resulting from Contractor's failure to coordinate its Work with other contractors in a manner that will allow timely completion of Contractor's Work. Contractor shall be liable for delays to other contractors caused by Contractor's failure to coordinate its Work with the work of other contractors.

6. **Liquidated Damages**: Time is of the essence for all Work under this Agreement. It is hereby understood and agreed that it is and will be difficult and/or impossible to ascertain and determine the actual damage that the County will sustain in the event of and by reason of Contractor's delay; therefore, Contractor agrees that it shall pay to the County the sum of **Two Thousand Five Hundred** dollars (**$2,500.00**) per day as liquidated damages for each and every day's delay beyond the time herein prescribed in finishing the Work.

It is hereby understood and agreed that this amount is not a penalty.

In the event any portion of the liquidated damages is not paid to the County, the County may deduct that amount from any money due or that may become due the Contractor under this Agreement. The County's right to assess liquidated damages is as indicated herein and in the General Conditions.

The time during which the Contract is delayed for cause as hereinafter specified may extend the time of completion for a reasonable time as the County may grant. This provision does not exclude the recovery of damages for delay by either party under other provisions in the Contract Documents.

7. **Loss Or Damage**: The County and its authorized representatives shall not in any way or manner be answerable or suffer loss, damage, expense, or liability for any loss or damage that may happen to the Work, or any part thereof, or in or about the same during its construction and before acceptance, and the Contractor shall assume all liabilities of every kind or nature arising from the Work, either by accident, negligence, theft, vandalism, or any cause whatsoever; and shall hold the County and its authorized representatives harmless from all liability of every kind and nature arising from accident, negligence, or any cause whatsoever.

8. **Insurance and Bonds**: Contractor shall provide all required certificates of insurance, and payment and performance bonds as evidence thereof.

9. **Execution of Work**: If the Contractor should neglect to execute the Work properly or fail to perform any provisions of this Agreement, the County, may, pursuant to the General Conditions and without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

10. **County Representatives**: Contractor hereby acknowledges that the Architect(s), County's Agent and the Project Inspector(s) have authority to approve and/or stop work if the Contractor's Work does not comply with the requirements of the Contract Documents, Title 24 of the California Code of Regulations, and all applicable laws. The Contractor shall be liable for any delay caused by its non-compliant Work.

11. **Assignment of Contract**: Neither the Contract, nor any part thereof, nor any monies due or to become due thereunder, may be assigned by the Contractor without the written approval of the County, nor without the written consent of the Surety on the Contractor's Performance Bond (the "Surety"), unless the Surety has waived in writing its right to notice of assignment.

12. **Classification of Contractor's License**: Contractor hereby acknowledges that it currently holds valid Type _____ Contractor's license(s) issued by the State of California, Contractor's State Licensing Board, in accordance with division 3, chapter 9,

of the Business and Professions Code and in the classification called for in the Contract Documents.

13. **Payment of Prevailing Wages**: The Contractor and all Subcontractors under the Contractor shall pay all workers on all Work performed pursuant to this Agreement not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the County, pursuant to sections 1770 et seq. of the California Labor Code.

14. Monitoring and enforcement of the prevailing wage laws and related requirements will be performed by the Labor Commissioner/ Department of Labor Standards Enforcement (DLSE), and by the County.

15. **Contract Price**: In consideration of the foregoing covenants, promises, and agreements on the part of the Contractor, and the strict and literal fulfillment of each and every covenant, promise, and agreement, and as compensation agreed upon for the Work and construction, erection, and completion as aforesaid, the County covenants, promises, and agrees that it will well and truly pay and cause to be paid to the Contractor in full, and as the full Contract Price and compensation for construction, erection, and completion of the Work hereinabove agreed to be performed by the Contractor, the following price:

_____ Dollars

($_____),

in lawful money of the United States, which sum is to be paid according to the schedule provided by the Contractor and accepted by the County and subject to additions and deductions as provided in the Contract. This amount supersedes any previously stated and/or agreed to amount(s).

16. **Severability**: If any term, covenant, condition, or provision in any of the Contract Documents is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions in the Contract Documents shall remain in full force and effect and shall in no way be affected, impaired, or invalidated thereby.

IN WITNESS WHEREOF, accepted and agreed on the last signature date indicated below:

"COUNTY" COUNTY OF RIVERSIDE

COUNTY OF RIVERSIDE

Date: _____

By:_____
_____, Chairman
Board of Supervisors

ATTEST:

KECIA HARPER-IHEM
Clerk of the Board
Date:_____

By:_____
Deputy
(SEAL)

APPROVED AS TO FORM:
Minh C. Tran

County Counsel

Date:_____

By:_____
Kristine Bell Valdez
Supervising Deputy County Counsel

"CONTRACTOR"

_____

_____

Date: _____

By: _____
(type name)

Title: _____

Date: _____

The following information must be provided concerning the Contractor:

State whether Contractor is corporation, individual, partnership, joint venture or other:

_____

If "other", enter legal form of business:

_____

Enter address:

_____

_____

_____

Telephone: _____

Facsimile: _____

Email: _____

Employer State Tax ID #: _____

State Contractor License # _____

DIR Registration #: _____

If Contractor is not an individual or corporation, list names of 4 representatives who have authority to contractually bind Contractor:

_____

_____

_____

_____

If Contractor is a corporation, state:

Name of President: _____

Name of Secretary: _____

State of Incorporation: _____

END OF DOCUMENT

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DOCUMENT 00 56 00

ESCROW AGREEMENT FOR
SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into this _____ day of _____, 2025, by and between **the County of Riverside**, whose address is **26520 Cactus Ave, Moreno Valley, CA 92555**, hereinafter called "Owner," and **_____,** whose address is **_____**, hereinafter called "Contractor," and **_____ Bank** whose address is **_____,** hereinafter called "Escrow Agent."

For the consideration hereinafter set forth, the Owner, Contractor, and Escrow Agent agree as follows:

(1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Owner pursuant to the Construction Contract entered into between the Owner and Contractor for the project known as **Cardiac Catheterization Laboratory,** in the amount of **_____ Dollars ($_____),** dated _____, 2025 (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the Owner shall make payments of the retention earnings directly to the Escrow Agent. When the Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Owner within ten (10) days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Owner and Contractor. Securities shall be held in the name of County of Riverside**,** and shall designate the Contractor as the beneficial owner.

(2) The Owner shall make progress payments to the Contractor for those funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.

(3) When the Owner makes payment of retention earned directly to the Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until the time that the escrow created under this contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the Owner pays the Escrow Agent directly.

(4) Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account and all expenses of the Owner. These expenses and payment terms shall be determined by the Owner, Contractor, and Escrow Agent.

(5) The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by the Contractor at any time and from time to time without notice to the Owner.

(6) Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from the Owner to the Escrow Agent that Owner consents to the withdrawal of the amount sought to be withdrawn by Contractor.

(7) The Owner shall have a right to draw upon the cash or securities in the event of default by the Contractor. Upon seven days' written notice to the Escrow Agent from the Owner of the default,

the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Owner.

(8) Upon receipt of written notification from the Owner certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

(9) Escrow Agent shall rely on the written notifications from the Owner and the Contractor pursuant to Sections (6) through (8), inclusive, of this agreement and the Owner and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

(10) The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Owner and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of Owner: On behalf of Contractor:

County of Riverside _____

Name: Carlos Cueva **Name:** _____

Title: Director Title: _____

Signature _____ Signature _____

Address: 26520 Cactus Ave, Address: _____

Moreno Valley, CA 92555 _____

On behalf of Escrow Agent:

_____

Name: _____
Title: _____
Signature _____
Address: _____
_____

At the time the Escrow Account is opened, the Owner and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers effective on the date first set forth above.

OWNER: CONTRACTOR:
County of Riverside _____

Title: Chairperson Title:
Name: Name:

Signature _____ Signature _____

DOCUMENT 00 61 13.13

PERFORMANCE BOND
(100% of Contract Price)

(Note: Bidders must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") for the County of Riverside, ("County") and _____ _____, ("Principal)" have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

Cardiac Catheterization Laboratory (Project Name)

("Contract") which Contract dated _____, 20____, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, said Principal is required under the terms of the Contract and by California Public Contract Code section 20129(b) to furnish a bond for the faithful performance of the Contract.

NOW, THEREFORE, we, the Principal, and _____("Surety"), an admitted surety insurer pursuant to code of Civil Procedure, Section 995.120, are held and firmly bound unto the County in the penal sum of _____DOLLARS ($_____), lawful money of the United States, for the payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents, to:

- Perform all the work required to complete the Project; and

- Pay to the County all damages the County incurs as a result of the Principal's failure to perform all the Work required to complete the Project.

The condition of the obligation is such that, if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract and any alteration thereof made as therein provided, on his or its part to be kept and performed at the time and in the intent and meaning, including all contractual guarantees and warrantees of materials and workmanship, and shall indemnify and save harmless the County, its trustees, officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise it shall be and remain in full force and virtue.

As a condition precedent to the satisfactory completion of the Contract, the above obligation shall hold good for a period equal to the warranty and/or guarantee period of the Contract, during which time Surety's obligation shall continue if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the County from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the County's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

Whenever Principal shall be, and is declared by County to be, in default under the Contract, the Surety shall promptly either remedy the default, or, if the Contract is terminated by County or the Principal's performance of the Work is discontinued, Surety shall promptly complete the Contract through its agents or independent contractors, subject to acceptance of such agents or independent

contractors by County as hereinafter set forth, in accordance with its terms and conditions and to pay and perform all obligations of Principal under the Contract (including, without limitation, all obligations with respect to payment of liquidated damages) subject to the penal amount of this bond as set forth above.

If County determines that completion of the Contract by Surety or its agents or independent contractors must be performed by a lowest responsible bidder selected pursuant to a competitive bidding process, then Surety shall comply with such processes in accordance with the requirements of County and applicable laws. Unless otherwise approved by County, in the exercise of its sole and absolute discretion, Surety shall not utilize Principal in completing performance of the Work.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the specifications.

Surety's obligations hereunder are independent of the obligations of any other surety for the performance of the Contract, and suit may be brought against Surety and such other sureties, joint and severally, or against any one or more of them or against less than all of them, without impairing County's rights against the others.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the _____ day of _____, 20____.

(Affix Corporate Seal)

_____
Principal

_____
By

_____
Surety

_____
By

_____
Name of California Agent of Surety

_____
Address of California Agent of Surety

_____
Telephone Number of California Agent of Surety

Bidder must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

END OF DOCUMENT

DOCUMENT 00 61 13.16

PAYMENT BOND
Contractor's Labor & Material Bond
(100% of Contract Price)

(Note: Bidders must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") for the County of Riverside, ("County") and _____ _____, ("Principal)" have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

Cardiac Catheterization Laboratory (Project Name)

("Contract") which Contract dated _____, 20___, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the work, to file a good and sufficient bond with the body by which the Contract is awarded in an amount equal to one hundred percent (100%) of the Contract price, to secure the claims to which reference is made in sections 9000 through 9510 and 9550 through 9566 of the Civil Code, and division 2, part 7, of the Labor Code.

NOW, THEREFORE, the Principal and _____, ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of _____Dollars ($_____), lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of his or its subcontractors, of the heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, provender, or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal or any of his or its subcontractors of any tier under Section 13020 of the Unemployment Insurance Code with respect to such work or labor, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the Court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under section 9100 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise it shall be and remain in full force and affect.

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of Contract or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the _____ day of _____, 20_____.

(Affix Corporate Seal)

_____
Principal

_____
By

_____
Surety

_____
By

_____
Name of California Agent of Surety

_____
Address of California Agent of Surety

_____
Telephone Number of California Agent of Surety

Bidder must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

END OF DOCUMENT

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GENERAL CONDITIONS

1. CONTRACT TERMS AND DEFINITIONS

1.1. Definitions

Wherever used in the Contract Documents, the following terms shall have the meanings indicated, which shall be applicable to both the singular and plural thereof:

1.1.1. Adverse Weather: Shall be only weather that satisfies all of the following conditions: (1) unusually severe precipitation, sleet, snow, hail, heat, or cold conditions in excess of the norm for the location and time of year it occurred, (2) unanticipated, and (3) at the Project.

1.1.2. Approval, Approved, and/or Accepted: Refer to written authorization, unless stated otherwise.

1.1.3. Architect: The individual, partnership, corporation, joint venture, or any combination thereof, named as Architect, who will have the rights and authority assigned to the Architect in the Contract Documents. The term Architect means the County's Architect on this Project or the Architect's authorized representative.

1.1.4. As-Built Drawings: Unless otherwise defined in the special conditions, reproducible blue line prints of drawings to be prepared on a monthly basis pursuant to the Contract Documents, that reflect changes made during the performance of the Work, recording differences between the original design of the Work and the Work as **constructed since the preceding monthly submittal.**

1.1.5. "Assistant CEO/EDA" means the Assistant CEO for the Economic Development Agency, or his/her designee.

1.1.6. "Bid Closing Deadline" means the deadline (date and time) for receipt of Bids by County that is stated in the Bidding Documents, as adjusted by Addendum.

1.1.7. Bidder: A contractor who intends to provide a proposal to the County to perform the Work of this Contract.

1.1.8. "Board of Supervisors" means the Board of Supervisors for the County of Riverside.

1.1.9. Change Order: A written order to the Contractor authorizing an addition to, deletion from, or revision in the Work, and/or authorizing an adjustment in the Contract Price or Contract Time.

1.1.10. Claim: "Claim" means a written demand or assertion by Contractor seeking, as a matter of right, an interpretation of contract, payment of money, recovery of damages or other relief. A Claim does not include the following: (1) tort claims for personal injury or death; (2) stop payment notice claims; (3) a determination of the right of County to specific performance or injunctive relief to compel performance; (4) a determination of the right of County to suspend, revoke or limit the Contractor's Prequalification status or rating or to debar Contractor from bidding or contracting with

County; or (5) a determination of the right of County under Applicable Laws to terminate the Construction Contract and/or recovery of penalties imposed upon Contractor for violation of statutory obligations under Public Contract Code §4100 et seq.

1.1.11. [RESERVED]

1.1.12. Construction Change Directive: A written order prepared and issued by the County, the Construction Manager, and/or the Architect and signed by the County and the Architect, directing a change in the Work.

1.1.13. Construction Manager: The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the County. If no Construction Manager is used on the Project that is the subject of this Contract, then all references to Construction Manager herein shall be read to refer to County.

1.1.14. Construction Schedule: The progress schedule of construction of the Project as provided by Contractor and approved by County.

1.1.15. Contract, Contract Documents: The Contract consists exclusively of the documents evidencing the agreement of the County and Contractor, identified as the Contract Documents. The Contract Documents consist of the following documents:

1.1.15.1. Notice to Bidders
1.1.15.2. Instructions to Bidders
1.1.15.3. Bid Form and Proposal
1.1.15.4. Bid Bond
1.1.15.5. Designated Subcontractors List
1.1.15.6. Site-Visit Certification
1.1.15.7. Non-collusion Declaration
1.1.15.8. Notice of Award
1.1.15.9. Notice to Proceed
1.1.15.10. Agreement
1.1.15.11. Escrow of Bid Documentation
1.1.15.12. Escrow Agreement for Security Deposits in Lieu of Retention
1.1.15.13. Performance Bond
1.1.15.14. Payment Bond (Contractor's Labor & Material Bond)
1.1.15.15. General Conditions
1.1.15.16. Special Conditions (if applicable)
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1.1.15.18. Hazardous Materials Procedures and Requirements
1.1.15.19. Workers' Compensation Certification
1.1.15.20. Prevailing Wage Certification
1.1.15.21. Drug-Free Workplace Certification
1.1.15.22. [RESERVED]
1.1.15.23. Hazardous Materials Certification
1.1.15.24. [RESERVED]
1.1.15.25. Imported Materials Certification
1.1.15.26. [RESERVED]
1.1.15.27. Iran Contracting Act Certification

1.1.15.28. Verification of Contractor and Subcontractors' DIR Registration

1.1.15.29. All Plans, Technical Specifications, and Drawings

1.1.15.30. Any and all addenda to any of the above documents

1.1.15.31. Any and all change orders or written modifications to the above documents if approved in writing by the County

1.1.15.32. Scope of Work Summary

1.1.16. Contract Price: The total monies payable to the Contractor under the terms and conditions of the Contract Documents.

1.1.17. Contract Time: The time period stated in the Agreement for the completion of the Work.

1.1.18. Contractor: The person or persons identified in the Agreement as contracting to perform the Work to be done under this Contract, or the legal representative of such a person or persons.

1.1.19. "County" means the County of Riverside, a political subdivision of the State of California.

1.1.20. "County Amount" means the component amount calculated on behalf of County that is used to determine the total net amount payable to Contractor or County in the event of a partial or full termination or discontinuance of the Work.

1.1.21. "County Consultant" means a consultant, other than Architect, engaged by County (or engaged as a sub consultant to the Architect or a County Consultant) to provide professional advice to County with respect to the design, construction or management of the Project.

1.1.22. "County Review Date" means an end date set forth in the Construction Schedule or Submittal Schedule within which County, Architect or a County Consultant is to provide information, review documents or render decisions, approvals or disapprovals.

1.1.23. "County Review Period" means a period of time set forth in the Construction Schedule or Submittal Schedule within which County, Architect or a County Consultant is to provide information, review documents or render decisions, approvals or disapprovals.

1.1.24. "County Risk Manager" means the individual employee of the County acting as its risk manager.

1.1.25. "County Website" means the website maintained by County at http://www.rivcoeda.org.

1.1.26. Daily Job Report(s): Daily Project reports prepared by the Contractor's employee(s) who are present on Site, which shall include the information required herein.

1.1.27. Day(s): Unless otherwise designated, day(s) means calendar day(s).

1.1.28. Dispute: A separate demand by Contractor for a time extension; payment of money or damages arising from Work done by or on behalf of the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or Contractor is not otherwise entitled to; or an amount of payment disputed by the County.

1.1.29. County: The public agency for which the Work is performed. The governing board of the County or its designees will act for the County in all matters pertaining to the Contract. The County may, at any time,

1.1.29.1. Direct the Contractor to communicate with or provide notice to the Construction Manager or the Architect on matters for which the Contract Documents indicate the Contractor will communicate with or provide notice to the County; and/or

1.1.29.2. Direct the Construction Manager or the Architect to communicate with or direct the Contractor on matters for which the Contract Documents indicate the County will communicate with or direct the Contractor.

1.1.30. Drawings (or "Plans"): The graphic and pictorial portions of the Contract Documents showing the design, location, scope and dimensions of the work, generally including plans, elevations, sections, details, schedules, sequence of operation, and diagrams.

1.1.31. "FM" means Facilities Management for the County of Riverside.

1.1.32. Force Account Directive: A process that may be used when the County and the Contractor cannot agree on a price for a specific portion of work or before the Contractor prepares a price for a specific portion of work and whereby the Contractor performs the work as indicated herein on a time and materials basis.

1.1.33. "Good Faith Determination" means a determination made by the Director of Facilities Management or other authorized representative of County, which he/she believes in good faith to be a proper exercise of County's rights and to have a reasonable basis in fact, whether or not such determination is in fact proper, reasonable or correct or adjudged to be so.

1.1.34. "Governmental Authority" means the United States, the State of California, the County of Riverside (acting in its regulatory, rather than proprietary, capacity), the City in which the Project is located, any other local, regional, state or federal political subdivision, authority, agency, department, commission, board, bureau, court, judicial or quasi-judicial body, and any legislative or quasi-legislative body, or instrumentality of any of them, which exercises jurisdiction over the Project, Work, Site, Contractor or County, including, without limitation, any Governmental Authority having jurisdiction to review and approve or reject the Contract Documents or the Work based on compliance or non-compliance with Applicable Laws.

1.1.35. "Governmental Authority Review Period" means a period of time set forth in the Construction Schedule or Submittal Schedule for Governmental Authority review, and/or approval, of the Work.

1.1.36. Municipal Separate Storm Sewer System (or "MS4"): A system of conveyances used to collect and/or convey storm water, including, without limitation, catch basins, curbs, gutters, ditches, man-made channels, and storm drains.

1.1.37. Premises: The real property owned by the County on which the Site is located.

1.1.38. "Prequalification" means a process for Prequalification of contractors for bidding that is conducted by County pursuant to California Public Contract Code §20101 or as otherwise permitted by Applicable Laws.

1.1.39. "Prequalification Documents" means the collection of documents issued to and submitted by individuals or entities pursuant to a Prequalification conducted by County.

1.1.40. "Prequalified Bidder" means a contractor that is prequalified as part of a Prequalification conducted by County pursuant to Public Contract Code §20101.

1.1.41. Product(s): New material, machinery, components, equipment, fixtures and systems forming the Work, including existing materials or components required and approved by the County for reuse.

1.1.42. Product Data: Illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate a material, product, or system for some portion of the Work.

1.1.43. Project: The planned undertaking as provided for in the Contract Documents.

1.1.44. Project Inspector (or "Inspector"): The individual(s) retained by the County in accordance with title 24 of the California Code of Regulations to monitor and inspect the Project.

1.1.45. Program Manager: The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the County. If no Program Manager is designated for Project that is the subject of this Contract, then all references to Project Manager herein shall be read to refer to County.

1.1.46. Provide: Shall include "provide complete in place," that is, "furnish and install," and "provide complete and functioning as intended in place" unless specifically stated otherwise.

1.1.47. Qualified SWPPP Practitioners ("QSP"): Certified personnel that attended a State Water Resources Control Board sponsored or approved training class and passed the qualifying exam.

1.1.48. Record Drawings: Unless otherwise defined in the Special Conditions, Reproducible drawings (or Plans) prepared pursuant to the requirements of the Contract Documents, that reflect all changes made during the performance of the Work, recording differences between the original design of the Work and the Work as constructed upon completion of the Project.

1.1.49. Request for Information ("RFI"): A written request prepared by the Contractor requesting that the Architect provide additional information necessary to clarify or amplify an item in the Contract Documents that the Contractor believes is not clearly shown or called for in the Drawings or Specifications or other portions of the Contract Documents, or to address problems that have arisen under field conditions.

1.1.50. Request for Substitution for Specified Item: A request by Contractor to substitute an equal or superior material, product, thing, or service for a specific material, product, thing, or service that has been designated in the Contract Documents by a specific brand or trade name.

1.1.51. Safety Orders: Written and/or verbal orders for construction issued by the California Division of Industrial Safety ("CalOSHA") or by the United States Occupational Safety and Health Administration ("OSHA").

1.1.52. Safety Plan: Contractor's safety plan specifically adapted for the Project. Contractor's Safety Plan shall comply with all provisions regarding Project safety, including all applicable provisions in these General Conditions.

1.1.53. Samples: Physical examples that illustrate materials, products, equipment, finishes, colors, or workmanship and that, when approved in accordance with the Contract Documents, establish standards by which portions of the Work will be judged.

1.1.54. Shop Drawings: All drawings, prints, diagrams, illustrations, brochures, schedules, and other data that are prepared by the Contractor, a subcontractor, manufacturer, supplier, or distributor, that illustrate how specific portions of the Work shall be fabricated or installed.

1.1.55. Site: The Project site as shown on the Drawings.

1.1.56. Specifications: That portion of the Contract Documents, Division 1 through Division 40, and all technical sections, and addenda to all of these, if any, consisting of written descriptions and requirements of a technical nature of materials, equipment, construction methods and systems, standards, and workmanship.

1.1.57. State: The State of California.

1.1.58. [RESERVED]

1.1.59. Storm Water Pollution Prevention Plan (or "SWPPP")**:** A document which identifies sources and activities at a particular facility that may contribute pollutants to storm water and contains specific control measures and time frames to prevent or treat such pollutants.

1.1.60. Subcontractor: A contractor and/or supplier who is under contract with the Contractor or with any other subcontractor, regardless of tier, to perform a portion of the Work of the Project.

1.1.61. Submittal Schedule: The schedule of submittals as provided by Contractor and approved by the County.

1.1.62. Surety: The person, firm, or corporation that executes as surety the Contractor's Performance Bond and Payment Bond, and must be a California admitted surety insurer as defined in the Code of Civil Procedure section 995.120.

1.1.63. Work: All labor, materials, equipment, components, appliances, supervision, coordination, and services required by, or reasonably inferred from, the Contract Documents, that are necessary for the construction and completion of the Project.

1.2. Laws Concerning The Contract

Contract is subject to all provisions of the Constitution and laws of California and the United States governing, controlling, or affecting the County, or the property, funds, operations, or powers of the County, and such provisions are by this reference made a part hereof. Any provision required by law to be included in this Contract shall be deemed to be inserted.

1.3. No Oral Agreements

No oral agreement or conversation with any officer, agent, or employee of the County, either before or after execution of Contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising the Contract.

1.4. No Assignment

Contractor shall not assign this Contract or any part thereof including, without limitation, any services or money to become due hereunder without the prior written consent of the County. Assignment without County's prior written consent shall be null and void. Any assignment of money due or to be come due under this Contract shall be subject to a prior lien for services rendered or material supplied for performance of work called for under this Contract in favor of all persons, firms, or corporations rendering services or supplying material to the extent that claims are filed pursuant to the Civil Code, Code of Civil Procedure, Government Code, Labor Code, and/or Public Contract Code, and shall also be subject to deductions for liquidated damages or withholding of payments as determined by County in accordance with this Contract. Contractor shall not assign or transfer in any manner to a Subcontractor or supplier the right to prosecute or maintain an action against the County.

1.5. Notice And Service Thereof

1.5.1. Any notice from one party to the other or otherwise under Contract shall be in writing and shall be dated and signed by the party giving notice or by a duly authorized representative of that party. Any notice shall not be effective for any purpose whatsoever unless served in one of the following manners:

1.5.1.1. If notice is given by personal delivery thereof, it shall be considered delivered on the day of delivery.

1.5.1.2. If notice is given by overnight delivery service, it shall be considered delivered on (1) day after date deposited, as indicated by the delivery service.

1.5.1.3. If notice is given by depositing same in United States mail, enclosed in a sealed envelope, it shall be considered delivered three (3) days after date deposited, as indicated by the postmarked date.

1.5.1.4. If notice is given by registered or certified mail with postage prepaid, return receipt requested, it shall be considered delivered on the day the notice is signed for.

1.6. No Waiver

The failure of County in any one or more instances to insist upon strict performance of any of the terms of this Contract or to exercise any option herein conferred shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon any such terms or option on any future occasion. No action or failure to act by the County, Architect, Program Manager or Construction Manager shall constitute a waiver of any right or duty afforded the County under the Contract, nor shall any action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

1.7. Substitutions For Specified Items

Unless the Special Conditions contain different provisions, Contractor shall not substitute different items for any items identified in the Contract Documents without prior written approval of the County.

1.8. Materials and Work

1.8.1. Except as otherwise specifically stated in this Contract, Contractor shall provide and pay for all materials, labor, tools, equipment, transportation, supervision, temporary constructions of every nature, and all other services, management, and facilities of every nature whatsoever necessary to execute and complete this Contract within the Contract Time.

1.8.2. Unless otherwise specified, all materials shall be new and the best of their respective kinds and grades as noted or specified, and workmanship shall be of good quality.

1.8.3. Materials shall be furnished in ample quantities and at such times as to insure uninterrupted progress of Work and shall be stored properly and protected as required.

1.8.4. For all materials and equipment specified or indicated in the Drawings, the Contractor shall provide all labor, materials, equipment, and services necessary for complete assemblies and complete working systems, functioning as intended. Incidental items not indicated on Drawings, nor mentioned in the Specifications, that can legitimately and reasonably be inferred to belong to the Work described, or be necessary in good practice to provide a complete assembly or system, shall be furnished as though itemized here in every detail. In all instances, material and equipment shall be installed in strict accordance with each manufacturer's most recent published recommendations and specifications.

1.8.5. Contractor shall, after award of Contract by County and after relevant submittals have been approved, place orders for materials and/or equipment as specified so that delivery of same may be made without delays to the Work. Contractor shall, upon demand from County, present documentary evidence showing that orders have been placed.

1.8.6. County reserves the right but has no obligation, for any neglect in complying with the above instructions, to place orders for such materials and/or equipment as it may deem advisable in order that the Work may be completed at the date specified in the Agreement, and all expenses incidental to the procuring of said materials and/or equipment shall be paid for by Contractor or withheld from payment(s) to Contractor.

1.8.7. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon completion of all Work to deliver the Site to the County, together with all improvements and appurtenances constructed or placed thereon by it, and free from any claims, liens, or charges. Contractor further agrees that neither it nor any person, firm, or corporation furnishing any materials or labor for any work covered by the Contract shall have any right to lien any portion of the Premises or any improvement or appurtenance thereon, except that Contractor may install metering devices or other equipment of utility companies or of political subdivision, title to which is commonly retained by utility company or political subdivision. In the event of installation of any such metering device or equipment, Contractor shall advise the County as to owner thereof.

1.8.7.1. If a lien or a claim based on a stop payment notice of any nature should at any time be filed against the Work or any County property, by any entity that has supplied material or services at the request of the Contractor, Contractor and Contractor's Surety shall promptly, on demand by County and at Contractor's and Surety's own expense, take any and all action necessary to cause any such lien or a claim based on a stop payment notice to be released or discharged immediately therefrom.

1.8.7.2. If the Contractor fails to furnish to the County within ten (10) calendar days after demand by the County, satisfactory evidence that a lien or a claim based on a stop payment notice has been so released, discharged, or secured, the County may discharge such indebtedness and deduct the amount required therefor, together with any and all losses, costs, damages, and attorney's fees and expense incurred or suffered by County from any sum payable to Contractor under the Contract.

1.8.8. Nothing contained in this Article, however, shall defeat or impair the rights of persons furnishing materials or labor under any bond given by Contractor for their protection or any rights under any law permitting such protection or any rights under any law permitting such persons to look to funds due Contractor in hands of the County (e.g., stop payment notices), and this provision shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing material for work when no formal contract is entered into for such material.

1.8.9. Title to new materials and/or equipment for the Work of this Contract and attendant liability for its protection and safety shall remain with Contractor until incorporated in the Work of this Contract and accepted by County. No part of any materials and/or equipment shall be removed from its place of storage except for immediate installation in the Work of this Contract. Contractor shall keep an accurate inventory of all materials and/or equipment in a manner satisfactory to County or its authorized representative and shall, at the County's request, forward it to the County.

2. SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

2.1. Submittals defined.

2.1.1. Shop Drawings. The term "shop drawings" as used herein means drawings, diagrams, schedules, and other data, which are prepared by Contractor, Subcontractors, manufacturers, suppliers, or distributors illustrating some portion of the Work, and includes: illustrations; fabrication, erection, layout and setting drawings; manufacturer's standard drawings; schedules; descriptive literature, instructions, catalogs, and brochures; performance and test data including charts; wiring and control diagrams; and all other drawings and descriptive data pertaining to materials, equipment, piping, duct and conduit systems, and methods of construction as may be required to show that the materials, equipment, or systems and their position conform to the requirements of the Contract Documents. The Contractor shall obtain and submit with shop drawings all seismic and other calculations and all product data from equipment manufacturers. "Product data" as used herein are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate a material, product, or system for some portion of the Work. As used herein, the term "manufactured" applies to standard units usually mass-produced and "fabricated" means items specifically assembled or made out of selected materials to meet individual design requirements. Shop drawings shall: establish the actual detail of all manufactured or fabricated items, indicate proper relation to adjoining work, amplify design details of mechanical and electrical systems and equipment in proper relation to physical spaces in the structure, and incorporate minor changes of design or construction to suit actual conditions.

2.1.2. Samples. The term "samples" as used herein are physical examples furnished by Contractor to illustrate materials, equipment, or quality and includes natural materials, fabricated items, equipment, devices, appliances, or parts thereof as called for, in the Specifications, and any other samples as may be required by the Architect to determine whether the kind, quality, construction, finish, color, and other characteristics of the materials, etc., proposed by the Contractor conform to the required characteristics of the various parts of the Work. All Work shall be in accordance with the approved samples.

2.1.3. Contractor's Schedule for Submission of Shop Drawings. Contractor shall obtain and shall submit all required shop drawings, samples, etc., in accordance with Contractor's "Schedule for Submission of Shop Drawings and Samples" as required in the scheduling portion of the General Conditions or the Specifications with such promptness as to cause no delay in its own Work or in that of any other contractor or subcontractor but in no event later than ninety (90) days after the execution of the Contract. No extensions of time will be granted to Contractor or any Subcontractor because of its failure to have shop drawings and samples submitted in accordance with the Schedule. Each Subcontractor shall submit all shop drawings, samples, and manufacturer's descriptive data for the review of the County, the Contractor, and the Architect through the Contractor. By submitting shop drawings, product data, samples, etc., the Contractor represents that it has determined and verified all materials, field measurements, catalog numbers, related field construction criteria, and other relevant data in connection with each such submission, and that it has checked, verified, and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents, including the construction schedule. The submission of the shop drawings, product data, samples, etc., shall not deviate from the requirements of the Contract Documents including detailing and design intent which is specifically outlined in Contract Documents except as specifically authorized by the Architect or through an accepted substitution pursuant to Paragraph 2.4. All deviations from the Contract Documents shall be narratively described in a transmittal accompanying the shop drawings. However, shop drawings shall not be used as a means of requesting a substitution, the procedure for which is defined in Paragraph 2.4,

"Substitutions." Review by County and Architect shall not relieve the Contractor or any Subcontractor from its responsibility in preparing and submitting proper shop drawings in accordance with the Contract Documents. Any submission, which in Architect's opinion is incomplete, contains errors, or has been checked superficially, will be returned un-reviewed by the Architect for resubmission by the Contractor. Contractor shall stamp, sign, and date each submittal indicating its representation that the submittal meets all of the requirements of the Contract Documents and evidence Contractor's review through execution of the following stamp to be placed on each shop drawings:

"The contractor has reviewed and approved the field dimensions and the construction criteria, and has also made written notation regarding any information in the shop drawings that does not conform to the contract documents. This shop drawing has been coordinated with all other shop drawings received to date by contractor and this duty of coordination has not been delegated to subcontractors, material suppliers, the Architect, or the engineers on this project.

Signature of Contractor and date"

2.1.4. Extent of Review. In reviewing shop drawings, the Architect will not verify dimensions and field conditions. The Architect will review and approve shop drawings, product data, samples, etc., for aesthetics and for conformance with the design concept of the Work and the information in the Contract Documents. The Architect's review shall neither be construed as a complete check which relieves the Contractor, Subcontractor, manufacturer, fabricator, or supplier from responsibility for any deficiency that may exist or from any departures or deviations from the requirements of the Contract Documents unless the Contractor has, in writing, called the Architect's attention to the deviations at the time of submission. The Architect's review shall not relieve the Contractor or Subcontractors from responsibility for errors of any sort in shop drawings or schedules, for proper fitting of the Work, coordination of the differing subcontractor trades and shop drawings and Work which is not indicated on the shop drawings at the time of submission of shop drawings. Contractor and Subcontractors shall be solely responsible for any quantities which may be shown on the submittals or Contract Documents. In no event shall changes to the Contract Documents be authorized by any shop drawing review actions of the Architect. No review action by the Architect or County, implicit or explicit, shall be interpreted to authorize changes to the requirements set forth in the Contract Documents. Changes to the Contract Documents shall only be authorized by a separate written change order or change directive.

2.2. Drawing Submission Procedure.

2.2.1. Transmittal Letter and Other Requirements. All shop drawings must be properly identified with the name of the Project and dated, and each lot submitted must be accompanied by a letter of transmittal referring to the name of the Project and to the Specification section number for identification of each item clearly stating in narrative form, as well as "clouding" on the submissions, all qualifications, departures, or deviations from the Contract Documents. Shop drawings, for each section of the Work shall be numbered consecutively and the numbering system shall be retained throughout all revisions. All Subcontractor submissions shall be made through the Contractor. Each drawing shall have a clear space for the stamps of Architect and Contractor.

2.2.2. Copies Required. Each submittal shall include one (1) legible, reproducible sepia and five (5) legible prints of each drawing or schedule, table, cut sheet, etc., including fabrication, erection, layout and setting drawings, and such other drawings as required under the various sections of the Specifications, until final acceptance thereof is obtained. Subcontractor shall submit copies, in an amount as requested by the

Contractor, of: (1) manufacturers' descriptive data for materials, equipment, and fixtures, including catalog sheets showing dimensions, performance, characteristics, and capacities; (2) wiring diagrams and controls; (3) schedules; (4) all seismic calculations and other calculations; and (5) other pertinent information as required by the County or Architect.

2.2.3. Corrections. The Contractor shall make all corrections required by Architect and shall resubmit, as required by Architect, corrected copies of shop drawings or new samples until approved. Contractor shall direct specific attention in writing or on resubmitted shop drawings to revisions other than the corrections required by the Architect on previous submissions. Professional services required for more than one (1) re-review of required submittals of shop drawings, product data, or samples are subject to charge to the Contractor.

2.2.4. Approval Prior to Commencement of Work. No portion of the Work requiring a shop drawing or sample submission or other submittal shall be commenced until the submission has been reviewed by Contractor and Architect and approved by Architect unless specifically directed in writing by the Architect. All such portions of the Work shall be in accordance with approved shop drawings and samples.

2.3. Sample Submissions Procedure.

2.3.1. Samples Required In case a considerable range of color, graining, texture, or other characteristics are anticipated in finished products, a sufficient number of samples of the specified materials shall be furnished by the Contractor to indicate the full range of characteristics which will be present in the finished products; and products delivered or erected without submittal and approval of a full range of samples shall be subject to rejection. Except for range samples, and unless otherwise called for in the various sections of the Specifications, samples shall be submitted in duplicate. All samples shall be marked, tagged, or otherwise properly identified with the name of the submitting party, the name of the Project, the purpose for which the samples are submitted and the date, and shall be accompanied by a letter of transmittal containing similar information, together with the Specification section number. Each tag or sticker shall have clear space for the review stamps of Contractor and Architect.

2.3.2. Labels and Instructions. All samples of materials shall be supplied with the manufacturer's descriptive labels and application instructions.

2.3.3. Architect's Review. The Architect will review and, if appropriate, approve submissions and will return them to the Contractor with the Architect's stamp and signature applied thereto, indicating the timing for review and appropriate action in compliance with the Architect's (or County's) standard procedures.

2.3.4. Record Drawings and Annotated Specifications. The Contractor will prepare and maintain on a current basis an accurate and complete set of Record Drawings clearly showing all changes, revisions to specifications and substitutions during construction, including, without limitation, field changes and the final location of all electrical and mechanical equipment, utility lines, ducts, outlets, structural members, walls, partitions, and other significant features, and Annotated Specifications showing clearly all changes, revisions, and substitutions during construction. A copy of such Record Drawings in AutoCAD and Annotated Specifications will be delivered to County in accordance with the Contractor's approved construction schedule. In case a specification allows Contractor to elect one of several brands, makes, or types of material or equipment, the annotations shall show which of the allowable items the Contractor has furnished. The Contractor will update the Record Drawings and Annotated Specifications as often as necessary to keep them current, but no less often than weekly. The Record Drawings and Annotated Specifications shall be kept at the Site and available for review and inspection by the County, Construction Manager and

the Architect. On completion of the Work and prior to Application for Final Payment, the Contractor will provide one complete set of Record Drawings in AutoCAD) and Annotated Specifications to the County, certifying them to be a complete and accurate reflection of the actual construction conditions of the Work.

2.3.5. Equipment Manuals. Contractor shall obtain and furnish three (3) complete sets of manuals containing the manufacturers' instructions for maintenance and operation of each item of equipment and apparatus furnished under the Contract Documents and any additional data specifically requested under the various sections of the Specifications for each division of the Work. The manuals shall be arranged in logical, sequential order, labeled, indexed, and placed in three-ring binders. At the completion of its Work, the Contractor shall certify, by endorsement thereon, that each of the manuals is complete, accurate, and covers all of its Work. Prior to submittal of Contractor's Application for Final Payment, and as a further condition to its approval by the Architect, each Subcontractor shall deliver the manuals, arranged in logical, sequential order, labeled, indexed, endorsed, and placed in three-ring binders, to the Contractor, who shall assemble these manuals for all divisions of the Work, review them for completeness, and submit them to the County through the Construction Manager.

2.3.6. County's Property. All shop drawings, computer disks, annotated specifications, samples and other submittals shall become the County's property upon receipt by the County or Architect.

2.4. Substitutions.

2.4.1. One Product Specified Unless the Specifications state that no substitution is permitted, whenever the Contract Documents indicate any specific article, device, equipment, product, material, fixture, patented process, form, method, or type of construction or any specific name, make, trade name, or catalog number, with or without the words "or equal," such specification shall be deemed to be used for the purpose of facilitating description of the material, process, or article desired and shall be deemed to be followed by the words "or, equal." Pursuant to Paragraph 2.4.3, the Contractor may, unless otherwise stated, offer any material, process, article, etc., which shall be materially equal or better in every respect to that so indicated or specified ("Specified Item") and will completely accomplish the purpose of the Contract Documents.

2.4.2. Products Specified which are Commercially Unavailable. If the Contractor fails to make a request for substitutions for products, prior to the submission of its bid, and such products subsequently become commercially unavailable, the Contractor may request a substitution for such commercially unavailable item. The decision to grant this request is solely at the County's discretion. The written approval of the County, consistent with the procedure for Change Orders, shall be required for the use of a proposed substitute material. The County may condition its approval of the substitution upon the delivery to County of an extended warranty or other assurances of adequate performance of the substitution as well as an equitable deduction in the contract price should the substituted item cost less than the Specified Item. All risks of delay due the approval of a requested substitution by the County, or any other governmental agency having jurisdiction, shall be on the requesting party. All additional costs, all procurement and construction delays, and all costs for review by the Architect or its consultants shall be the responsibility of the Contractor and will be deducted from Contractor's pay request.

2.4.3 Substitution Request Form. Requests for substitutions of products, materials, or processes in place of a Specified Item must in writing on the County's Substitution Request Form ("Request Form") at the time of submitting bids to the County, except as provided for in Paragraph 2.4.2. Bidders and materials suppliers who submit requests

for substitutions prior to the award of the Project must do so in writing and in compliance with Public Contract Code section 3400. All requests must comply with the following:

2.4.3. County must receive any request for substitution a minimum of **TEN (10)** calendar days prior to bid opening.

2.4.3.1 Requests for substitutions shall contain sufficient information to assess acceptability of product or system and impact on Project, including, without limitation, the requirements specified in the Special Conditions and the Specifications. Insufficient information shall be grounds for rejection of substitution.

2.4.3.2 Approved substitutions shall be listed in Addenda. County reserves the right not to act upon submittals of substitutions until after bid opening.

2.4.3.3 Substitutions may be requested after Contract has been awarded only if indicated in and in accordance with requirements specified in the Special Conditions and the Specifications.

2.4.4 The Request Form must be accompanied by evidence as to whether the proposed substitution:

1. Is equal in quality/service/ability to the Specified Item;
2. Will entail no changes in detail, construction, and scheduling of related work;
3. Will be acceptable in consideration of the required design and artistic effect;
4. Will provide no cost disadvantage to the County;
5. Will require no excessive or more expensive maintenance, including adequacy and availability of replacement parts; and
6. Will required no change of the construction schedule.

In completing the Request Form, the bidder must state, with respect to each requested substitution, whether the bidder will agree to provide the Specified Item in the event that the County denies the bidder's request for such requested substitution. In the event that the bidder has agreed in the Request Form to provide the Specified Item and the County denies the bidder's requested substitution for a Specified Item, the bidder shall provide the Specified Item without any additional cost or charge to the County.

If the Architect and County accept a proposed substitution, the Contractor agrees to pay for all engineering and design services, including, without limitation, compensation to the Architect and affected engineers for their required time to process such substitution through the County, if required, and to make all changes and adjustments in materials or the work of all trades directly or indirectly affected by the substituted item or items at no cost to the County.

2.5. Deferred Approvals.

Deferred approvals shall be submitted and processed pursuant to the requirements of Division 1 of the Specifications. All deferred approvals shall be prepared by Contractor or Contractor's agent early enough so as to not delay the Project. Contractor is aware that Title 21 California Code of Regulations has specific requirements for deferred approval as to governing agencies and as to the Architect and Engineer for the Project. As a result, any delay associated with the time for approval by applicable agencies or by the Architect or Architect's consultants shall be Contractor's.

3. COUNTY RIGHTS AND OBLIGATIONS

3.1. INFORMATION, APPROVALS AND SERVICES REQUIRED OF COUNTY

3.1.1. Legal Descriptions. County shall furnish, within a reasonable time after written request by Contractor, a legal description of the Site and information describing legal limitations affecting the Site that are recorded with applicable Governmental Authorities, such as, but not limited to, easements.

3.1.2. County Approvals. Information, approvals and decisions required of County or a County Consultant for which a County Review Period or County Review Date is included in the Construction Schedule that is approved by County shall be provided in accordance with the Construction Schedule. If a County Review Period or County Review Date is not set forth in the Construction Schedule approved by County, then such information, approvals and decisions shall be provided upon written request by Contractor without unreasonable Delay. Notwithstanding the foregoing, failure by County, Architect or a County Consultant to provide any information, approvals or decisions shall not be considered as a basis for Contract Adjustment to the Contract Time unless and until, and in calculating a Contract Adjustment any Delay or extension of the Contract Time resulting from a late-issuance of such information, approval or decision shall not commence until after:

3.1.2.1. in the case of information, approval or decision for which there is a County-approved County Review Period or County Review Date in the County-approved Construction Schedule, seven (7) Days have passed since the County and the individual from whom such information, approval or decision is sought have received from Contractor a written notice containing all the following:

3.1.2.1.1.(1) a detailed description of the information, approval or decision required;

3.1.2.1.2.(2) a statement that the County Review Period or County Review Date has expired or passed; and

3.1.2.1.3.(3) a statement, prominently displayed, that: "Pursuant to Paragraph 2.1.3 of the General Conditions, the failure to provide the requested information, approval or decision within 7 calendar days from this notice may result in a request for a Contract Adjustment"; or

3.1.2.2. In the case of information, approval or decision for which there is no County Review Period or County Review Date set forth in the County-approved Construction Schedule, thirty (30) Days have passed since the County and the individual from whom such information, approval or decision is sought have received from Contractor a written notice that includes the statements set forth Clauses (1) and (2) of Subparagraph 2.1.3.1, above, and that includes a statement, prominently displayed, that: "Pursuant to Paragraph 2.1.3 of the General Conditions, the failure to provide the requested information, approval or decision within 30 calendar days from this notice may result in a request for a Contract Adjustment".

3.1.3. Approvals. Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by the activities or duties of County, Architect or any other Project Team member, or by tests, inspections or approvals required or performed by persons other than the Contractor.

3.1.4. Non-Specified Items. County reserves the right to approve materials and sources of supply of materials that are not specified in the Contract Documents and that are used for the performance of the Work.

3.2. COUNTY'S RIGHT TO STOP THE WORK. If Contractor fails to correct Defective Work as required by Section 13.2 of these General Conditions, fails to perform the Work in accordance with the Contract Documents or violates any Applicable Law, County may

immediately order Contractor to stop the Work, or any portion thereof, until the cause for such direction has been eliminated by Contractor. Contractor shall immediately comply with such notice at Contractor's Own Expense. Nothing stated herein or elsewhere in the Contract Documents shall be interpreted as placing upon County a duty or responsibility to Contractor or any other party to exercise its right to stop the Work.

3.3. COUNTY'S RIGHT TO CARRY OUT THE WORK. If Contractor fails to carry out the Work in accordance with the Contract Documents, fails to provide sufficient labor, materials, equipment, tools and services to maintain the Construction Schedule, or otherwise fails to comply with any requirement of the Contract Documents, and fails to cure such failure in the manner required by Subparagraph 15.1.1.4, below, County may correct such failure. In such case, County shall be entitled to recover from Contractor or deduct from payments then or thereafter due Contractor for any loss resulting from such failure, including compensation for the additional services and expenses of County, County Consultants and others whose services are reasonably required and made necessary thereby. If payments then or thereafter due Contractor are not sufficient to cover such amounts, Contractor shall promptly pay the amount of the shortfall to County.

3.4. ACCOUNTING, RECORDS AND AUDIT

3.4.1. Accounting System. Contractor shall exercise such controls as may be necessary for proper financial management of the Work. Such accounting and control systems shall comply with prevailing custom and practice for similar projects, be satisfactory to County and shall include preservation of the books and records described in Paragraph 2.4.2, below, subject to Contractor's obligations under Paragraph 1.3.6, above, for a period of ten (10) years after Final Completion of the Work, or for such longer period as may be required by Applicable Laws.

3.4.2. Books and Records. Contractor shall keep, and shall require provisions to be included in all contracts entered into by Subcontractors, of every Tier, requiring the Subcontractors, of every Tier, to keep, full and detailed books, records, information, materials and data, of every kind and character (hard copy, as well as computer readable data if it exists) that have any bearing on or pertain to any matters, rights, duties or obligations relating to the Project, Work or Construction Contract, including, without limitation, agreements, purchase orders, leases, contracts, commitments, arrangements, notes, change orders, change order requests, estimates, field orders, construction change directives, schedules, requests for information, diaries, logs, reports, shop drawings, samples, exemplars, drawings, specifications, invoices, delivery tickets, receipts, vouchers, cancelled checks, memoranda, accounting records; job cost reports, job cost files (including complete documentation of negotiated settlements), backcharges, general ledgers; documentation of cash and trade discounts earned, insurance rebates and dividends, and other documents relating in any way to any claims, charges or time extensions asserted by Contractor or any of the Subcontractors, of any Tier, or relating to any credits, rebates or discounts owing to County.

3.4.3. Inspection and Copying. Contractor shall allow, and shall require provisions to be included in all contracts entered into by Subcontractors, of every Tier, allowing, County and the auditor for the State of California (and the authorized representative(s), auditors, attorneys and accountants of each) upon twenty-four (24) hours notice to Contractor, full access to inspect and copy all its aforestated books and records at a location within the Southern California area. Such right of audit may be exercised by either County or the auditor for the State of California as often as reasonably necessary to verify Contractor's continuing compliance with the Contract Documents.

3.4.4. Confidential Information. Nothing stated in this Section 2.4 or elsewhere in the Contract Documents shall be interpreted as a waiver by Contractor or any Subcontractor of any rights of privilege or confidentiality that are provided for by

Applicable Law nor as authorizing the inspection of books and records that contain information concerning estimating means or methods that is not, in whole or part, relevant to a charge or demand being asserted by Contractor or a Subcontractor involving Extra Work, Deleted Work, Delay or a Claim.

3.4.5. Withholding of Payment. In addition to and without limitation upon County's other rights and remedies for breach, including any rights of County to withhold payment that are set forth elsewhere in the Contract Documents, County shall have the right, exercised in its sole discretion, to withhold from any payment due to Contractor under an Application for Payment a sum of up to ten percent (10%) of the total amount set forth in such Application for Payment until Contractor and the Subcontractors have complied with any outstanding and unsatisfied obligation under this Section 2.4. Upon compliance with this Section 2.4, any such monies withheld shall be released to Contractor.

3.4.6. Specific Performance. Contractor agrees that any failure to provide access to books and records as required by this Section 3.4 will result in irreparable harm and prejudice to County and shall, without the necessity of posting of any bond or undertaking, be specifically enforceable by means of a mandatory injunctive order (temporary, preliminary, provisional or otherwise) issued by a court of competent jurisdiction, which order the County and Contractor hereby consent to being issued based upon affidavits and without the necessity of oral testimony.

3.5. COUNTY FURNISHED MATERIALS

3.5.1. Supply by County. County shall have the right to furnish materials, products or equipment directly for processing and incorporation by Contractor in lieu of Contractor providing materials, products or equipment specified in the Contract Documents to be provided by Contractor as part of the Work.

3.5.2. Deleted Work. If the materials, products or equipment provided by County are pursuant to Paragraph 3.5.1 above, then a Change Order shall be executed deleting such materials, products or equipment from the Work along with a Contract Adjustment reducing the Contract Price in the manner provided for in Article 7, below, applicable to Contract Adjustments for Deleted Work.

3.5.3. Delivery Deadlines. Without limitation to Contractor's obligations under Article 8, below, upon receipt of written instruction by County of its intent to provide materials, products or equipment pursuant to this Section 3.6, Contractor shall notify County promptly in writing of any deadlines within which such materials, products or equipment must be received at the Site in order to avoid Delay.

3.5.4. Delivery to Site. Contractor shall, upon their delivery to the Site, properly receive and unload materials, products or equipment furnished by County pursuant to this Section 2.5.

3.5.5. Care, Custody and Control. Contractor assumes full and unconditional responsibility for care, custody and control of the materials, products or equipment that are furnished by County pursuant to this Section 2.5, whether or not they have been accepted by County, and assumes sole responsibility for any subsequent loss, injury or damage thereto occurring prior to Final Completion.

3.5.6. Notice of Deficiencies. Contractor shall carefully inspect any materials, products or equipment furnished by County pursuant to this Section 2.5 and immediately notify County of any defect or deficiency in such materials, products or equipment or any nonconformity in such materials, products or equipment with the requirements of the Contract Documents or with the requirements of the other documentation provided to Contractor setting forth the conditions of County's purchase. Contractor shall not accept any materials, products or equipment furnished by County

with respect to which Contractor has provided such notice of defect, deficiency or non-conformity unless and until instructed to do so in writing by County.

3.5.7. Incorporation in Work. Contractor shall, as part of the Work and without Contract Adjustment, provide any and all processing, fabrication, cutting, shaping, fitting, assembly and installation of materials, products or equipment furnished by County pursuant to this Section 2.5 in full compliance with the requirements of the Contract Documents and the manufacturer's instructions and recommendations.

3.6. COUNTY INSTALLED ITEMS Contractor shall notify County, a reasonable time in advance, of the Contractor's scheduled dates for installation of items that are specified in the Contract Documents to be placed on, attached to or incorporated into the Work by County or Separate Contractors. In the event that Contractor fails to do so or if due to Unexcused Delay the County is unable after such notice by Contractor to so place, affix or incorporate such items, then Contractor shall be responsible, in addition to any amounts due to County for liquidated damages, to reimburse County for costs of storage or rental of temporary replacement items until such time as the Work is in a condition suitable for such items to be placed, affixed or incorporated.

3.7. County's Additional Rights The rights stated in this Article 2 are in addition to and not in limitation of any other rights of County granted elsewhere in the Contract Documents or under Applicable Laws.

4. ARCHITECT

4.1. The Architect shall represent the County during the Project and will observe the progress and quality of the Work on behalf of the County. Architect shall have the authority to act on behalf of County to the extent expressly provided in the Contract Documents and to the extent determined by County. Architect shall have authority to reject materials, workmanship, and/or the Work whenever rejection may be necessary, in Architect's reasonable opinion, to insure the proper execution of the Contract.

4.2. Architect shall, with the County and on behalf of the County, determine the amount, quality, acceptability, and fitness of all parts of the Work, and interpret the Specifications, Drawings, and shall, with the County, interpret all other Contract Documents.

4.3. Architect shall have all authority and responsibility established by law, including title 24 of the California Code of Regulations.

4.4. Contractor shall provide County through the Construction Manager with a copy of all written communication between Contractor and Architect at the same time as that communication is made to Architect, including, without limitation, all RFIs, correspondence, submittals, claims, and proposed change orders.

5. CONSTRUCTION MANAGER

If a Construction Manager is used on this Project ("Construction Manager" or "CM"), the Construction Manager will provide administration of the Contract on the County's behalf. After execution of the Contract and Notice to Proceed, all correspondence and/or instructions from Contractor and/or County shall be forwarded through the Construction Manager. The Construction Manager will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences, or procedures or for safety precautions in connection with the Work, which shall all remain the Contractor's responsibility. The Construction Manager shall not be responsible for the Contractor's, Subcontractors', material or equipment suppliers', or any other person's schedules or failure to carry out the Work in accordance with the Contract Documents. The Construction Manager shall not have control over or charge of acts or omissions of the Contractor, Subcontractors, their agents or employees, or any other persons or entities performing or supplying portions of the Work. The Contractor shall not be relieved of obligations to perform the Work in accordance with the

Contract Documents either by activities or duties of the Construction Manager in the Construction Manager's administration of the Contract Documents, or by tests, inspections, or approvals required or performed by persons other than the Contractor.

5.1. The Construction Manager, however, will have authority to reject materials and/or workmanship not conforming to the Contract Documents, as determined by the County, the Architect, and/or the Project Inspector. The Construction Manager shall also have the authority to require special inspection or testing of any portion of the Work, whether it has been fabricated, installed, or fully completed. Any decision made by the Construction Manager, in good faith, shall not give rise to any duty or responsibility of the Construction Manager to the Contractor, any Subcontractor, their agents, employees, or other persons performing any of the Work. The Construction Manager shall have free access to any or all parts of Work at any time.

5.2. If the County does not use a Construction Manager on this Project, all references to Construction Manager or CM shall be read as County.

6. INSPECTOR, INSPECTIONS, AND TESTS

6.1. Project Inspector

6.1.1. One or more Project Inspector(s), including special Project Inspector(s), as required, will be assigned to the Work by County, in accordance with requirements of title 24, part 1, of the California Code of Regulations, to enforce the building code and monitor compliance with Plans and Specifications for the Project.

6.1.2. No Work shall be carried on except with the knowledge and under the inspection of the Project Inspector(s). The Project Inspector(s) shall have free access to any or all parts of Work at any time. Contractor shall furnish Project Inspector(s) reasonable opportunities for obtaining such information as may be necessary to keep Project Inspector(s) fully informed respecting progress and manner of work and character of materials. Inspection of Work shall not relieve Contractor from an obligation to fulfill this Contract. Project Inspector(s) are authorized to stop work whenever the Contractor and/or its Subcontractor(s) are not complying with the Contract Documents. Any work stoppage by the Project Inspector(s) shall be without liability to the County. Contractor shall instruct its Subcontractors and employees accordingly.

6.1.3. If Contractor and/or any Subcontractor requests that the Project Inspector(s) perform any inspection off-site, this shall only be done if it is allowable pursuant to applicable regulations, if the Project Inspector(s) agree to do so, and at the expense of the Contractor.

6.2. Tests and Inspections

6.2.1. Tests and Inspections shall comply with title 24, part 1, California Code of Regulations, group 1, article 5, section 4-335, and with the provisions of the Specifications.

6.2.2. The County will select an independent testing laboratory to conduct the tests. Selection of the materials required to be tested shall be by the laboratory or the County's representative and not by the Contractor. The Contractor shall notify the County's representative a sufficient time in advance of its readiness for required observation or inspection.

6.2.3. The Contractor shall notify the County's representative a sufficient time in advance of the manufacture of material to be supplied under the Contract Documents that must by terms of the Contract Documents be tested, in order that the County may

arrange for the testing of same at the source of supply. This notice shall be, at a minimum, seventy-two (72) hours prior to the manufacture of the material that needs to be tested.

6.2.4. Any material shipped by the Contractor from the source of supply prior to having satisfactorily passed such testing and inspection or prior to the receipt of notice from said representative that such testing and inspection will not be required, shall not be incorporated into and/or onto the Project.

6.2.5. The County will select and pay testing laboratory costs for all tests and inspections. Costs of tests of any materials found to be not in compliance with the Contract Documents shall be paid for by the County and reimbursed by the Contractor or deducted from the Contract Price.

6.3. Costs for After Hours and/or Off Site Inspections

If the Contractor performs Work outside the Inspector's regular working hours or requests the Inspector to perform inspections off Site, costs of any inspections required outside regular working hours or off Site shall be borne by the Contractor and may be invoiced to the Contractor by the County or the County may deduct those expenses from the next Progress Payment.

7. CONTRACTOR

Contractor shall construct the Work for the Contract price including any adjustment(s) to the Contract Price pursuant to provisions herein regarding changes to the Contract Price. Except as otherwise noted, Contractor shall provide and pay for all labor, materials, equipment, permits, fees, licenses, facilities, transportation, taxes, and services necessary for the proper execution and completion of the Work, except as indicated herein.

7.1. Status of Contractor

7.1.1. Contractor is and shall at all times be deemed to be an independent contractor and shall be wholly responsible for the manner in which it and its Subcontractors perform the services required of it by the Contract Documents. Nothing herein contained shall be construed as creating the relationship of employer and employee, or principal and agent, between the County, or any of the County's employees or agents, and Contractor or any of Contractor's Subcontractors, agents or employees. Contractor assumes exclusively the responsibility for the acts of its employees as they relate to the services to be provided during the course and scope of their employment. Contractor, its Subcontractors, agents, and its employees shall not be entitled to any rights or privileges of County employees. County shall be permitted to monitor the Contractor's activities to determine compliance with the terms of this Contract.

7.1.2. As required by law, Contractor and all Subcontractors shall be properly licensed and regulated by the Contractor's State License Board, 3132 Bradshaw Road, Post Office Box 2600, Sacramento, California 98826, http://www.cslb.ca.gov.

7.2. Contractor's Supervision

7.2.1. During progress of the Work, Contractor shall keep on the Premises, and at all other locations where any Work related to the Contract is being performed, a competent project manager and construction superintendent who are employees of the Contractor, to whom the County does not object and at least one of whom shall be fluent in English, written and verbal. Supervision shall be present on a full-time basis and shall be dedicated exclusively to the Project and Contractor shall not share supervisory duties with another project or job.

7.2.2. The project manager and construction superintendent shall both speak fluently the predominant language of the Contractor's employees.

7.2.3. Before commencing the Work herein, Contractor shall give written notice to County of the name of its project manager and construction superintendent. Neither the Contractor's project manager nor construction superintendent shall be changed except with prior written notice to County, unless the Contractor's project manager and/or construction superintendent proves to be unsatisfactory to Contractor, County, any of the County's employees, agents, the Construction Manager, or the Architect, in which case, Contractor shall notify County in writing. The Contractor's project manager and construction superintendent shall each represent Contractor, and all directions given to Contractor's project manager and/or construction superintendent shall be as binding as if given to Contractor.

7.2.4. Contractor shall give efficient supervision to Work, using its best skill and attention. Contractor shall carefully study and compare all Contract Documents, Drawings, Specifications, and other instructions and shall at once report to County, Construction Manager, and Architect any error, inconsistency, or omission that Contractor or its employees and Subcontractors may discover, in writing, with a copy to County's Project Inspector(s). The Contractor shall have responsibility for discovery of errors, inconsistencies, or omissions.

7.3. Duty to Provide Fit Workers

7.3.1. Contractor and Subcontractor(s) shall at all times enforce strict discipline and good order among their employees and shall not employ or work any unfit person or anyone not skilled in work assigned to that person. It shall be the responsibility of Contractor to ensure compliance with this requirement. County may require Contractor to permanently remove unfit persons from Project Site.

7.3.2. Any person in the employ of Contractor or Subcontractor(s) whom County may deem incompetent or unfit shall be excluded from working on the Project and shall not again be employed on the Project except with the prior written consent of County.

7.3.3. The Contractor shall furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work.

7.3.4. If Contractor intends to make any change in the name or legal nature of the Contractor's entity, Contractor must first notify the County. The County shall determine if Contractor's intended change is permissible while performing this Contract.

7.4. Field Office

7.4.1. Contractor may provide on the Work Site a temporary office if space permits.

7.5. Purchase of Materials and Equipment

The Contractor is required to order, obtain, and store materials and equipment sufficiently in advance of its Work at no additional cost or advance payment from County to assure that there will be no delays.

7.6. Documents On Work

7.6.1. Contractor shall at all times keep on the Work Site, or at another location as the County may authorize in writing, one legible copy of all Contract Documents, including Addenda and Change Orders, and titles 19 and 24 of the California Code of Regulations, the specified edition(s) of the Uniform Building Code, all approved Drawings, Plans, Schedules, and Specifications, and all codes and documents referred to in the Specifications, and made part thereof. These documents shall be kept in good order and available to County, Construction Manager, Architect, Architect's representatives, the Project Inspector(s), and all authorities having jurisdiction. Contractor shall be acquainted with and comply with the provisions of these titles as they relate to this Project. Contractor shall also be acquainted with and comply with all California Code of

Regulations provisions relating to conditions on this Project, particularly titles 8 and 17. Contractor shall coordinate with Architect and Construction Manager and shall submit its verified report(s) according to the requirements of title 24.

7.6.2. Daily Job Reports.

7.6.2.1. Contractor shall maintain, at a minimum, at least one (1) set of Daily Job Reports on the Project. These must be prepared by the Contractor's employee(s) who are present on Site, and must include, at a minimum, the following information:

7.6.2.1.1. A brief description of all Work performed on that day.
7.6.2.1.2. A summary of all other pertinent events and/or occurrences on that day.
7.6.2.1.3. The weather conditions on that day.
7.6.2.1.4. A list of all Subcontractor(s) working on that day,
7.6.2.1.5. A list of each Contractor employee and their full name and level (apprentice, journeyman, etc.) working on that day and the total hours worked for each employee.
7.6.2.1.6. A complete list of all equipment on Site that day, whether in use or not.
7.6.2.1.7. All complete list of all materials, supplies, and equipment delivered on that day.
7.6.2.1.8. A complete list of all inspections and tests performed on that day.

7.6.2.2. Each day Contractor shall provide a copy of the previous day's Daily Job Report to the Construction Manager.

7.7. Preservation of Records

The County shall have the right to examine and audit all Daily Job Reports or other Project records of Contractor's project manager(s), project superintendent(s), and/or project foreperson(s), all certified payroll records and/or related documents including, without limitation, payroll, payment, timekeeping and tracking documents; all books, estimates, records, contracts, documents, bid documents, bid cost data, subcontract job cost reports, and other data of the Contractor, any Subcontractor, and/or supplier, including computations and projections related to bidding, negotiating, pricing, or performing the Work or Contract modification, in order to evaluate the accuracy, completeness, and currency of the cost, manpower, coordination, supervision, or pricing data at no additional cost to the County. These documents may be duplicative and/or be in addition to any Bid Documents held in escrow by the County. The Contractor shall make available at its office at all reasonable times the materials described in this paragraph for the examination, audit, or reproduction until three (3) years after final payment under this Contract. Notwithstanding the provisions above, Contractor shall provide any records requested by any governmental agency, if available, after the time set forth above.

7.8. Integration of Work

7.8.1. Contractor shall do all cutting, fitting, patching, and preparation of Work as required to make its several parts come together properly, to fit it to receive or be received by work of other contractors, and to coordinate tolerances to various pieces of work, showing upon, or reasonably implied by, the Drawings and Specifications for the completed structure, and shall conform them as County and/or Architect may direct.

7.8.2. All cost caused by defective or ill-timed Work shall be borne by Contractor, inclusive of repair work.

7.8.3. Contractor shall not endanger any work performed by it or anyone else by cutting, excavating, or otherwise altering work and shall not cut or alter work of any other contractor except with consent of County.

7.9. Obtaining of Permits and Licenses

Contractor shall secure and pay for all permits, licenses, and certificates necessary for prosecution of Work, including but not limited to those listed in the Special Conditions, if any, before the date of the commencement of the Work or before the permits, licenses, and certificates are legally required to continue the Work without interruption. The Contractor shall obtain and pay, only when legally required, for all licenses, permits, inspections, and inspection certificates required to be obtained from or issued by any authority having jurisdiction over any part of the Work included in the Contract. All final permits, licenses, and certificates shall be delivered to County before demand is made for final payment.

7.10. Royalties and Patents

7.10.1. Contractor shall obtain and pay, only when legally required, all royalties and license fees necessary for prosecution of Work before the earlier of the date of the commencement of the Work or the date the license is legally required to continue the Work without interruption. Contractor shall defend suits or claims of infringement of patent, copyright, or other rights and shall hold the County, the Architect, and the Construction Manager harmless and indemnify them from loss on account thereof except when a particular design, process, or make or model of product is required by the Contract Documents. However, if the Contractor has reason to believe that the required design, process, or product is an infringement of a patent or copyright, the Contractor shall indemnify and defend the County, Architect and Construction Manager against any loss or damage unless the Contractor promptly informs the County of its information.

7.10.2. The review by the County or Architect of any method of construction, invention, appliance, process, article, device, or material of any kind shall be only its adequacy for the Work and shall not approve use by the Contractor in violation of any patent or other rights of any person or entity.

7.11. Work to Comply With Applicable Laws and Regulations

7.11.1. Contractor shall give all notices and comply with the following specific laws, ordinances, rules, and regulations and all other applicable laws, ordinances, rules, and regulations bearing on conduct of Work as indicated and specified, including but not limited to the appropriate statutes and administrative code sections. If Contractor observes that Drawings and Specifications are at variance therewith, or should Contractor become aware of the development of conditions not covered by Contract Documents that will result in finished Work being at variance therewith, Contractor shall promptly notify County in writing and any changes deemed necessary by County shall be made as provided in Contract for changes in Work.

7.11.1.1. National Electrical Safety Code, U. S. Department of Commerce

7.11.1.2. National Board of Fire Underwriters' Regulations

7.11.1.3. Uniform Building Code, latest addition, and the California Code of Regulations, title 24, and other amendments

7.11.1.4. Manual of Accident Prevention in Construction, latest edition, published by A.G.C. of America

7.11.1.5. Industrial Accident Commission's Safety Orders, State of California

7.11.1.6. Regulations of the State Fire Marshall (title 19, California Code of Regulations) and Pertinent Local Fire Safety Codes

7.11.1.7. Americans with Disabilities Act

7.11.1.8. Education Code of the State of California

7.11.1.9. Government Code of the State of California

7.11.1.10. Labor Code of the State of California, division 2, part 7, Public Works and Public Agencies

7.11.1.11. Public Contract Code of the State of California

7.11.1.12. California Art Preservation Act

7.11.1.13. U. S. Copyright Act

7.11.1.14. U. S. Visual Artists Rights Act

7.11.2. Contractor shall comply will all applicable mitigation measures, if any, adopted by any public agency with respect to this Project pursuant to the California Environmental Quality Act (Public Resources Code section 21000 et seq.)

7.11.3. If Contractor performs any Work that it knew, or through exercise of reasonable care should have known, to be contrary to any applicable laws, ordinance, rules, or regulations, Contractor shall bear all costs arising therefrom.

7.11.4. Where Specifications or Drawings state that materials, processes, or procedures must be approved by the, State Fire Marshall, or other body or agency, Contractor shall be responsible for satisfying requirements of such bodies or agencies.

7.12. Safety/Protection of Persons and Property

7.12.1. The Contractor will be solely and completely responsible for conditions of the Work Site, including safety of all persons and property during performance of the Work. This requirement will apply continuously and not be limited to normal working hours.

7.12.2. The wearing of hard hats will be mandatory at all times for all personnel on Site. Contractor shall supply sufficient hard hats to properly equip all employees and visitors.

7.12.3. Any construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures in, on, or near the Work Site.

7.12.4. Implementation and maintenance of safety programs shall be the sole responsibility of the Contractor.

7.12.5. The Contractor shall furnish to the County a copy of the Contractor's safety plan within the time frame indicated in the Contract Documents and specifically adapted for the Project.

7.12.6. Contractor shall be responsible for all damages to persons or property that occur as a result of its fault or negligence in connection with the prosecution of this Contract and shall take all necessary measures and be responsible for the proper care and completion and final acceptance by County. All Work shall be solely at Contractor's risk with the exception of damage to the Work caused by "acts of God" as defined in Public Contract Code section 7105.

7.12.7. Contractor shall take, and require Subcontractors to take, all necessary precautions for safety of workers on the Project and shall comply with all applicable federal, state, local, and other safety laws, standards, orders, rules, regulations, and building codes to prevent accidents or injury to persons on, about, or adjacent to

premises where Work is being performed and to provide a safe and healthful place of employment. Contractor shall furnish, erect, and properly maintain at all times, all necessary safety devices, safeguards, construction canopies, signs, nets, barriers, lights, and watchmen for protection of workers and the public and shall post danger signs warning against hazards created by such features in the course of construction.

7.12.8. Hazards Control – Contractor shall store volatile wastes in covered metal containers and remove them from the Site daily. Contractor shall prevent accumulation of wastes that create hazardous conditions. Contractor shall provide adequate ventilation during use of volatile or noxious substances.

7.12.9. Contractor shall designate a responsible member of its organization on the Project, whose duty shall be to post information regarding protection and obligations of workers and other notices required under occupational safety and health laws, to comply with reporting and other occupational safety requirements, and to protect the life, safety, and health of workers. Name and position of person so designated shall be reported to County by Contractor.

7.12.10. Contractor shall correct any violations of safety laws, rules, orders, standards, or regulations. Upon the issuance of a citation or notice of violation by the Division of Occupational Safety and Health, Contractor shall correct such violation promptly.

7.12.11. Contractor shall comply with any County storm water requirements that are approved by the County and applicable to the Project, at no additional cost to the County.

7.12.12. In an emergency affecting safety of life or of work or of adjoining property, Contractor, without special instruction or authorization, shall act, at its discretion, to prevent such threatened loss or injury. Any compensation claimed by Contractor on account of emergency work shall be determined by agreement.

7.12.13. All salvage materials will become the property of the Contractor and shall be removed from the Site unless otherwise called for in the Contract Documents. However, the County reserves the right to designate certain items of value that shall be turned over to the County unless otherwise directed by County.

7.12.14. All connections to public utilities and/or existing on-site services shall be made and maintained in such a manner as to not interfere with the continuing use of same by the County during the entire progress of the Work.

7.12.15. Contractor shall provide such heat, covering, and enclosures as are necessary to protect all Work, materials, equipment, appliances, and tools against damage by weather conditions, such as extreme heat, cold, rain, snow, dry winds, flooding, or dampness.

7.12.16. The Contractor shall protect and preserve the Work from all damage or accident, providing any temporary roofs, window and door coverings, boxings, or other construction as required by the Architect. The Contractor shall be responsible for existing structures, walks, roads, trees, landscaping, and/or improvements in working areas; and shall provide adequate protection therefor. If temporary removal is necessary of any of the above items, or damage occurs due to the Work, the Contractor shall replace same at his expense with same kind, quality, and size of Work or item damaged. This shall include any adjoining property of the County and others.

7.12.17. Contractor shall take adequate precautions to protect existing roads, sidewalks, curbs, pavements, utilities, adjoining property, and structures (including,

without limitation, protection from settlement or loss of lateral support), and to avoid damage thereto, and repair any damage thereto caused by construction operations.

7.12.18. Contractor shall confine apparatus, the storage of materials, and the operations of workers to limits indicated by law, ordinances, permits, or directions of Architect, and shall not interfere with the Work or unreasonably encumber Premises or overload any structure with materials. Contractor shall enforce all instructions of County and Architect regarding signs, advertising, fires, and smoking, and require that all workers comply with all regulations while on Project Site.

7.12.19. Contractor, Contractor's employees, Subcontractors, Subcontractors' employees, or any person associated with the Work shall conduct themselves in a manner appropriate for a school site. No verbal or physical contact with neighbors, students, and faculty, profanity, or inappropriate attire or behavior will be permitted. County may require Contractor to permanently remove non-complying persons from Project Site.

7.12.20. Contractor shall take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed, Contractor shall have a civil engineer, registered as a professional engineer in California; replace them at no cost to County.

7.12.21. In the event that the Contractor enters into any agreement with owners of any adjacent property to enter upon the adjacent property for the purpose of performing the Work, Contractor shall fully indemnify, defend, and hold harmless each person, entity, firm, or agency that owns or has any interest in adjacent property. The form and content of the agreement of indemnification shall be approved by the County prior to the commencement of any Work on or about the adjacent property. The Contractor shall also indemnify the County as provided in the indemnification provision herein. These provisions shall be in addition to any other requirements of the owners of the adjacent property.

7.12.22. The Contractor shall furnish to the County a copy of the Contractor's Material Safety Data Sheets ("MSDS") within the time frame indicated in the Contract Documents and specifically adapted for the Project.

7.12.23. The Contractor shall furnish to the County a copy of the Contractor's Injury Illness Prevention Plan ("IIPP")

7.12.24. Wthin the time frame indicated in the Contract Documents and specifically adapted for the Project.

7.13. Working Evenings and Weekends

Contractor may be required to work evenings and/or weekends at no additional cost to the County. Contractor shall give the County seventy-two (72) hours' notice prior to performing any evening and/or weekend work. Contractor shall perform all evening and/or weekend work only upon County's approval and in compliance with all applicable rules, regulations, laws, and local ordinances including, without limitation, all noise and light limitations. Contractor shall reimburse the County for any Inspector charges necessitated by the Contractor's evening and/or weekend work.

7.14. Cleaning Up

7.14.1. The Contractor shall provide all services, labor, materials, and equipment necessary for protecting the Work, all school occupants, furnishings, equipment, and building structure from damage until its completion and final acceptance by County. Dust barriers shall be provided to isolate dust and dirt from construction operations. At completion of the Work and portions thereof, Contractor shall clean to the original state any areas beyond the Work area that become dust laden as a result of the Work. The

Contractor must erect the necessary warning signs and barricades to ensure the safety of all school occupants. The Contractor at all times must maintain good housekeeping practices to reduce the risk of fire damage and must make a fire extinguisher, fire blanket, and/or fire watch, as applicable, available at each location where cutting, braising, soldering, and/or welding is being performed or where there is an increased risk of fire.

7.14.2. Contractor at all times shall keep Premises free from debris such as waste, rubbish, and excess materials and equipment caused by the Work. Contractor shall not leave debris under, in, or about the Premises, but shall promptly remove same from the Premises on a daily basis. If Contractor fails to clean up, County may do so and the cost thereof shall be charged to Contractor. If Contract is for work on an existing facility, Contractor shall also perform specific clean-up on or about the Premises upon request by the County as it deems necessary for the continuing operations process. Contractor shall comply with all related provisions of the Specifications.

7.14.3. If the Construction Manager, Architect, or County observes the accumulation of trash and debris, the County will give the Contractor a 24-hour written notice to mitigate the condition.

7.14.4. Should the Contractor fail to perform the required clean-up, or should the clean-up be deemed unsatisfactory by the County, the County will then perform the clean-up. All cost associated with the clean-up work (including all travel, payroll burden, and costs for supervision) will be deducted from the Contract Price, or County may withhold those amounts from payment(s) to Contractor.

7.15. DIR Registration

Strict compliance with all DIR registration requirements in accordance with Labor Code sections 1725.5 and 1771.1 is a material obligation of the Contractor and all of its subcontractors (of any tier) under the Contract Documents. The foregoing includes, without limitation, compliance with DIR registration requirements at all times during performance of the Work by the Contractor and all of its subcontractors of any tier. The failure of the Contractor and all subcontractors of any tier to be properly registered with DIR at all times during performance of the Work is a material breach of the Contract and subject to termination for cause.

An affirmative and ongoing obligation of the Contractor under the Contract Documents is the verification that all subcontractors of any tier are at all times during performance of the Work are in full and strict compliance with the DIR registration requirements. The Contractor shall not permit or allow any subcontractor of any tier to perform any Work without the Contractor's verification that all subcontractors are in full and strict compliance with the DIR registration requirements. Any subcontractors of any tier not properly registered with DIR shall be substituted in accordance with Labor Code section 1771.1. Contractor or its subcontractors of any tier shall not be entitled to any additional costs or time arising from or in any way related to compliance with the DIR registration requirements.

8. SUBCONTRACTORS

8.1. Contractor shall provide the County with information for all Subcontracts as indicated in the Contractor's Submittals and Schedules Section herein.

8.2. No contractual relationship exists between the County and any Subcontractor, supplier, or sub-subcontractor by reason of this Contract.

8.3. Contractor agrees to bind every Subcontractor by terms of this Contract as far as those terms are applicable to Subcontractor's work including, without limitation, all labor, wage & hour, apprentice and related provisions and requirements. If Contractor shall

subcontract any part of this Contract, Contractor shall be as fully responsible to County for acts and omissions of any Subcontractor and of persons either directly or indirectly employed by any Subcontractor, as it is for acts and omissions of persons directly employed by Contractor. The divisions or sections of the Specifications are not intended to control the Contractor in dividing the Work among Subcontractors or limit the work performed by any trade.

8.4. County's consent to, or approval of, or failure to object to, any Subcontractor under this Contract shall not in any way relieve Contractor of any obligations under this Contract and no such consent shall be deemed to waive any provisions of this Contract.

8.5. Contractor is directed to familiarize itself with sections 4100 through 4114 of the Public Contract Code of the State of California, as regards subletting and subcontracting, and to comply with all applicable requirements therein. In addition, Contractor is directed to familiarize itself with sections 1720 through 1861 of the Labor Code of the State of California, as regards the payment of prevailing wages and related issues, and to comply with all applicable requirements therein all including, without limitation, section 1775 and the Contractor's and Subcontractors' obligations and liability for violations of prevailing wage law and other applicable laws.

8.6. No Contractor whose Bid is accepted shall, without consent of the awarding authority and in full compliance with section 4100, et seq., of the Public Contract Code, including, without limitation, sections 4107, 4107.5, and 4109 of the Public Contract Code, either:

8.6.1. Substitute any person as a Subcontractor in place of the Subcontractor designated in the original Bid; or

8.6.2. Permit any Subcontract to be assigned or transferred, or allow any portion of the Work to be performed by anyone other than the original Subcontractor listed in the Bid; or

8.6.3. Sublet or subcontract any portion of the Work in excess of one-half of one percent (0.5%) of the Contractor's total bid as to which his original bid did not designate a Subcontractor.

8.7. The Contractor shall be responsible for the coordination of the trades, Subcontractors, sub-subcontractors, and material or equipment suppliers working on the Project.

8.8. Contractor is solely responsible for settling any differences between the Contractor and its Subcontractor(s) or between Subcontractors.

8.9. Contractor must include in all of its subcontracts the assignment provisions as indicated in the Termination section of these General Conditions.

8.10. All subcontractors (of any tier) performing any portion of the Work must comply with the Labor Code sections 1725.5 and 1771.1 and must be properly and currently registered with the California Department of Industrial Relations and qualified to perform public works pursuant to Labor Code section 1725.5 throughout the duration of the Project. No portion of the Work is permitted to be performed by a subcontractor of any tier unless the subcontractor is properly registered with DIR. Any subcontractors of any tier not properly registered with DIR shall be substituted in accordance with Labor Code section 1771.1.

9. OTHER CONTRACTS/CONTRACTORS

9.1. County reserves the right to let other contracts, and/or to perform work with its own forces, in connection with the Project. Contractor shall afford other contractors reasonable opportunity for introduction and storage of their materials and execution of their work and shall properly coordinate and connect Contractor's Work with the work of other contractors.

9.2. In addition to Contractor's obligation to protect its own Work, Contractor shall protect the work of any other contractor that Contractor encounters while working on the Project.

9.3. If any part of Contractor's Work depends on proper execution or results upon work of County or any other contractor, the Contractor shall inspect and promptly report to the County in writing before proceeding with its Work any defects in County's or any other contractor's work that render Contractor's Work unsuitable for proper execution and results. Contractor shall be held accountable for damages to County for County's or any other contractor's work that Contractor failed to inspect or should have inspected. Contractor's failure to inspect and report shall constitute Contractor's acceptance of all County's or any other contractor's work as fit and proper for reception of Contractor's Work, except as to defects that may develop in County's or any other contractor's work after execution of Contractor's Work.

9.4. To ensure proper execution of its subsequent work, Contractor shall measure and inspect work already in place and shall at once report to the County in writing any discrepancy between that executed work and the Contract Documents.

9.5. Contractor shall ascertain to its own satisfaction the scope of the Project and nature of County's or any other contracts that have been or may be awarded by County in prosecution of the Project to the end that Contractor may perform this Contract in light of the other contracts, if any.

9.6. Nothing herein contained shall be interpreted as granting to Contractor exclusive occupancy of the Site, the Premises, or of the Project. Contractor shall not cause any unnecessary hindrance or delay to the use and/or school operation(s) of the Premises and/or to County or any other contractor working on the Project. If simultaneous execution of any contract or school operation is likely to cause interference with performance of Contractor's Contract, Contractor shall coordinate with those contractor(s), person(s), and/or entity(s) and shall notify the County of the resolution.

10. DRAWINGS AND SPECIFICATIONS

10.1. A complete list of all Drawings that form a part of the Contract is to be found as an index on the Drawings themselves, and/or may be provided to the Contractor and/or in the Table of Contents.

10.2. Materials or Work described in words that so applied have a well-known technical or trade meaning shall be deemed to refer to recognized standards, unless noted otherwise.

10.3. Trade Name or Trade Term. It is not the intention of this Contract to go into detailed descriptions of any materials and/or methods commonly known to the trade under "trade name" or "trade term." The mere mention or notation of "trade name" or "trade term" shall be considered a sufficient notice to Contractor that it will be required to complete the work so named, complete, finished, and operable, with all its appurtenances, according to the best practices of the trade.

10.4. The naming of any material and/or equipment shall mean furnishing and installing of same, including all incidental and accessory items thereto and/or labor therefor, as per best practices of the trade(s) involved, unless specifically noted otherwise.

10.5. Contract Documents are complementary, and what is called for by one shall be binding as if called for by all. As such, Drawings and Specifications are intended to be fully

cooperative and to agree. However, if Contractor observes that Drawings and Specifications are in conflict, Contractor shall promptly notify County and Architect in writing, and any necessary changes shall be made as provided in the Contract Documents.

10.6. In the case of discrepancy or ambiguity in the Contract Documents, the order of precedence in the Agreement shall prevail. However, in the case of discrepancy or ambiguity solely between and among the Drawings and Specifications, the discrepancy or ambiguity shall be resolved in favor of the interpretation that will provide County with the functionally complete and operable Project described in the Drawings and Specifications. In case of ambiguity, conflict, or lack of information, County will furnish clarifications with reasonable promptness.

10.7. Drawings and Specifications are intended to comply with all laws, ordinances, rules, and regulations of constituted authorities having jurisdiction, and where referred to in the Contract Documents, the laws, ordinances, rules, and regulations shall be considered as a part of the Contract within the limits specified. Contractor shall bear all expense of correcting work done contrary to said laws, ordinances, rules, and regulations.

10.8. Ownership of Drawings

All copies of Plans, Drawings, Designs, Specifications, and copies of other incidental architectural and engineering work, or copies of other Contract Documents furnished by County, are the property of County. They are not to be used by Contractor in other work and, with the exception of signed sets of Contract Documents, are to be returned to County on request at completion of Work, or may be used by County as it may require without any additional costs to County. Neither the Contractor nor any Subcontractor, or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications, and other documents prepared by the Architect. County hereby grants the Contractor, Subcontractors, sub-subcontractors, and material or equipment suppliers a limited license to use applicable portions of the Drawings prepared for the Project in the execution of their Work under the Contract Documents.

11. CONTRACTOR'S SUBMITTALS AND SCHEDULES

Contractor's submittals shall comply with the provisions and requirements of the Specifications including, without limitation Submittals.

11.1. Schedule of Work, Schedule of Submittals, and Schedule of Values

11.1.1.1. Reserved

11.1.1.2. Preliminary Schedule of Values. A preliminary schedule of values for all of the Work, which must include quantities and prices of items aggregating the Contract Price and must subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Unless the Special Conditions contain different limits, this preliminary schedule of values shall include, at a minimum, the following information and the following structure:

11.1.1.2.1. Divided into at least the following categories:

11.1.1.2.1.1. Overhead and profit;
11.1.1.2.1.2. Supervision;
11.1.1.2.1.3. General conditions;
11.1.1.2.1.4. Layout;
11.1.1.2.1.5. Mobilization;
11.1.1.2.1.6. Submittals;
11.1.1.2.1.7. Bonds and insurance;
11.1.1.2.1.8. Close-out documentation;
11.1.1.2.1.9. Demolition;
11.1.1.2.1.10. Installation;

11.1.1.2.1.11. Rough-in;
11.1.1.2.1.12. Finishes;
11.1.1.2.1.13. Testing;
11.1.1.2.1.14. Punchlist and acceptance.

11.1.1.2.2. Divided by each of the following areas:

11.1.1.2.2.1. Site work;
11.1.1.2.2.2. By each building;
11.1.1.2.2.3. By each floor.

11.1.1.2.3. The preliminary schedule of values shall not provide for values any greater than the following percentages of the Contract value:

11.1.1.2.3.1. Mobilization and layout combined to equal not more than 1%;
11.1.1.2.3.2. Submittals, samples and shop drawings combined to equal not more than 3%;
11.1.1.2.3.3. Bonds and insurance combined to equal not more than 2%.

11.1.1.2.4. Closeout documentation shall have a value in the preliminary schedule of not less than 5%.

11.1.1.2.5. Notwithstanding any provision of the Contract Documents to the contrary, payment of the Contractor's overhead, supervision, general conditions costs, and profit, as reflected in the Cost Breakdown, shall be paid by the County in equal installments, based on percentage complete, with the disbursement of Progress Payments and the Final Payment.

11.1.1.2.6. Contractor shall certify that the preliminary schedule of values as submitted to the County is accurate and reflects the costs as developed in preparing Contractor's bid. The preliminary schedule of values shall be subject to the County's review and approval of the form and content thereof. In the event that the County objects to any portion of the preliminary schedule of values, the County shall notify the Contractor, in writing, of the County's objection(s) to the preliminary schedule of values. Within five (5) calendar days of the date of the County's written objection(s), Contractor shall submit a revised preliminary schedule of values to the County for review and approval. The foregoing procedure for the preparation, review and approval of the preliminary schedule of values shall continue until the County has approved the entirety of the preliminary schedule of values.

11.1.1.2.7. Once the preliminary schedule of values is approved by the County, this shall become the Schedule of Values. The Schedule of Values shall not be thereafter modified or amended by the Contractor without the prior consent and approval of the County, which may be granted or withheld in the sole discretion of the County.

11.1.1.3. [RESERVED]

11.1.1.3.1. [RESERVED]

11.1.1.4. Complete Subcontractor List. The name, address, telephone number, facsimile number, California State Contractors License number, classification, and monetary value of all Subcontracts for parties furnishing labor, material, or equipment for completion of the Project.

11.1.2. Contractor must provide all schedules both in hard copy and electronically, in a format (e.g., Microsoft Project or Primavera) approved in advance by the County.

11.1.3. The County will review the schedules submitted and the Contractor shall make changes and corrections in the schedules as requested by the County and resubmit the schedules until approved by the County.

11.1.4. The County shall have the right at any time to revise the schedule of values if, in the County's sole opinion, the schedule of values does not accurately reflect the value of the Work performed.

11.1.5. All submittals and schedules must be approved by the County before Contractor can rely on them as a basis for payment.

11.2. Monthly Progress Schedule(s)

11.2.1. Upon request by the County, Contractor shall provide Monthly Progress Schedule(s) to the County. A Monthly Progress Schedule shall update the approved Construction Schedule or the last Monthly Progress Schedule, showing all work completed and to be completed. The monthly Progress Schedule shall be sent within the timeframe requested by the County and shall be in a format acceptable to the County and contain a written narrative of the progress of work that month and any changes, delays, or events that may affect the work. The process for County approval of the Monthly Progress Schedule shall be the same as the process for approval of the Construction Schedule.

11.2.2. Contractor shall also submit Monthly Progress Schedule(s) with all payment applications.

11.3. Material Safety Data Sheets (MSDS)

Contractor is required to ensure Material Safety Data Sheets are available in a readily accessible place at the Work Site for any material requiring a Material Safety Data Sheet per the Federal "Hazard Communication" standard, or employees right to know law. The Contractor is also required to ensure proper labeling on substance brought onto the job site and that any person working with the material or within the general area of the material is informed of the hazards of the substance and follows proper handling and protection procedures. Two additional copies of the Material Safety Data Sheets shall also be submitted directly to the County.

12. SITE ACCESS, CONDITIONS, AND REQUIREMENTS

12.1. Site Investigation

Before bidding on this Work, Contractor shall make a careful investigation of the Site and thoroughly familiarize itself with the requirements of the Contract. By the act of submitting a bid for the Work included in this Contract, Contractor shall be deemed to have made a complete study and investigation, and to be familiar with and accepted the existing conditions of the Site.

12.2. Soils Investigation Report

12.2.1. When a soils investigation report obtained from test holes at Site is available, that report shall be available to the Contractor but shall not be a part of this Contract. Any information obtained from that report or any information given on Drawings as to subsurface soil condition or to elevations of existing grades or elevations of underlying rock is approximate only, is not guaranteed, does not form a part of this Contract, and Contractor may not rely thereon. By submitting its bid, Contractor acknowledges that it has made visual examination of Site and has made whatever tests Contractor deems appropriate to determine underground condition of soil.

12.2.2. Contractor agrees that no claim against County will be made by Contractor for damages and hereby waives any rights to damages if, during progress of Work, Contractor encounters subsurface or latent conditions at Site materially differing from

those shown on Drawings or indicated in Specifications, or for unknown conditions of an unusual nature that differ materially from those ordinarily encountered in the work of the character provided for in Plans and Specifications, except as indicated in the provisions of these General Conditions regarding trenches, trenching, and/or existing utility lines.

12.3. Access to Work

County and its representatives shall at all times have access to Work wherever it is in preparation or progress, including storage and fabrication. Contractor shall provide safe and proper facilities for such access so that County's representatives may perform their functions.

12.4. Layout and Field Engineering

12.4.1. All field engineering required for layout of this Work and establishing grades for earthwork operations shall be furnished by Contractor at its expense. This Work shall be done by a qualified, California-registered civil engineer approved in writing by County and Architect. Any required Record and/or As-Built Drawings of Site development shall be prepared by the approved civil engineer.

12.4.2. The Contractor shall be responsible for having ascertained pertinent local conditions such as location, accessibility, and general character of the Site and for having satisfied itself as to the conditions under which the Work is to be performed. County shall not be liable for any claim for allowances because of Contractor’s error or negligence in acquainting itself with the conditions at the Site.

12.4.3. Contractor shall protect and preserve established benchmarks and monuments and shall make no changes in locations without the prior written approval of County. Contractor shall replace any benchmarks or monuments that are lost or destroyed subsequent to proper notification of County and with County's approval.

12.5. Utilities

Utilities shall be provided as indicated in the Specifications.

12.6. Sanitary Facilities

Sanitary facilities shall be provided as indicated in the Specifications.

12.7. Surveys

Contractor shall provide surveys done by a California-licensed civil engineer surveyor to determine locations of construction, grading, and site work as required to perform the Work.

12.8. Regional Notification Center

The Contractor, except in an emergency, shall contact the appropriate regional notification center at least two (2) days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement that is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the County, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and/or carried out by the Contractor unless an inquiry identification number has been assigned to the Contractor or any Subcontractor and the Contractor has given the County the identification number. Any damages arising from Contractor's failure to make appropriate notification shall be at the sole risk and expense of the Contractor. Any delays caused by failure to make appropriate notification shall be at the sole risk of the Contractor and shall not be considered for an extension of the Contract time.

12.9. Existing Utility Lines

12.9.1. Pursuant to Government Code section 4215, County assumes the responsibility for removal, relocation, and protection of main or trunk utility lines and facilities located on the construction Site at the time of commencement of construction under this Contract with respect to any such utility facilities that are not identified in the Plans and Specifications. Contractor shall not be assessed for liquidated damages for delay in completion of the Project caused by failure of County or the owner of a utility to provide for removal or relocation of such utility facilities.

12.9.2. Locations of existing utilities provided by County shall not be considered exact, but approximate within reasonable margin and shall not relieve Contractor of responsibilities to exercise reasonable care or costs of repair due to Contractor's failure to do so. County shall compensate Contractor for the costs of locating, repairing damage not due to the failure of Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the Plans and Specifications with reasonable accuracy, and for equipment necessarily idle during such work.

12.9.3. No provision herein shall be construed to preclude assessment against Contractor for any other delays in completion of the Work. Nothing in this Article shall be deemed to require County to indicate the presence of existing service laterals, appurtenances, or other utility lines, within the exception of main or trunk utility lines. Whenever the presence of these utilities on the Site of the construction Project can be inferred from the presence of other visible facilities, such as buildings, meter junction boxes, on or adjacent to the Site of the construction.

12.9.4. If Contractor, while performing Work under this Contract, discovers utility facilities not identified by County in Contract Plans and Specifications, Contractor shall immediately notify the County and the utility in writing. The cost of repair for damage to above-mentioned visible facilities without prior written notification to the County shall be borne by the Contractor.

12.10. Notification

Contractor understands, acknowledges and agrees that the purpose for prompt notification to the County pursuant to these provisions is to allow the County to investigate the condition(s) so that the County shall have the opportunity to decide how the County desires to proceed as a result of the condition(s). Accordingly, failure of Contractor to promptly notify the County in writing, pursuant to these provisions, shall constitute Contractor's waiver of any claim for damages or delay incurred as a result of the condition(s).

12.11. Hazardous Materials

Contractor shall comply with all provisions and requirements of the Contract Documents related to hazardous materials including, without limitation, Hazardous Materials Procedures and Requirements.

12.12. No Signs

Neither the Contractor nor any other person or entity shall display any signs not required by law or the Contract Documents at the Site, fences trailers, offices, or elsewhere on the Site without specific prior written approval of the County.

13. TRENCHES

13.1. Trenches Greater Than Five Feet

Pursuant to Labor Code section 6705, if the Contract Price exceeds $25,000 and involves the excavation of any trench or trenches five (5) feet or more in depth, the Contractor shall, in advance of excavation, promptly submit to the County and/or a registered civil or structural engineer employed by the County or Architect, a detailed plan showing the design of shoring for protection from the hazard of caving ground during the excavation of such trench or trenches.

13.2. Excavation Safety

If such plan varies from the Shoring System Standards established by the Construction Safety Orders, the plan shall be prepared by a registered civil or structural engineer, but in no case shall such plan be less effective than that required by the Construction Safety Orders. No excavation of such trench or trenches shall be commenced until said plan has been accepted by the County or by the person to whom authority to accept has been delegated by the County.

13.3. No Tort Liability of County

Pursuant to Labor Code section 6705, nothing in this Article shall impose tort liability upon the County or any of its employees.

13.4. No Excavation Without Permits

The Contractor shall not commence any excavation Work until it has secured all necessary permits including the required CAL OSHA excavation/shoring permit. Any permits shall be prominently displayed on the Site prior to the commencement of any excavation.

13.5. Discovery of Hazardous Waste and/or Unusual Conditions

13.5.1. Pursuant to Public Contract Code section 7104, if the Work involves digging trenches or other excavations that extend deeper than four feet below the Surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the County, in writing, of any:

13.5.1.1. Material that the Contractor believes may be material that is hazardous waste, as defined in section 25117 of the Health and Safety Code, is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.

13.5.1.2. Subsurface or latent physical conditions at the Site differing from those indicated.

13.5.1.3. Unknown physical conditions at the Site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

13.5.2. The County shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work, shall issue a Change Order under the procedures described herein.

13.5.3. In the event that a dispute arises between County and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by Contract or by law that pertain to the resolution of disputes and protests.

14. INSURANCE AND BONDS

14.1. Insurance

Unless different provisions and/or limits are indicated in the Special Conditions, all insurance required of Contractor and/or its Subcontractor(s) shall be in the amounts and include the provisions set forth herein.

14.1.1. Commercial General Liability and Automobile Liability Insurance

14.1.1.1. Contractor shall procure and maintain, during the life of this Contract, Commercial General Liability Insurance and Automobile Liability Insurance that shall protect Contractor, County, State, Construction Manager(s), Project Inspector(s), and Architect(s) from all claims for bodily injury, property damage, personal injury, death, advertising injury, and medical payments arising from operations under this Contract. This coverage shall be provided in a form at least as broad as Insurance Services (ISO) Form CG 0001 11188. Contractor shall ensure that Products Liability and Completed Operations coverage, Fire Damage Liability, and Any Auto including owned, non-owned, and hired, are included within the above policies and at the required limits, or Contractor shall procure and maintain these coverages separately.

14.1.1.2. Contractor's deductible or self-insured retention for its Commercial General Liability Insurance policy shall not exceed $25,000 unless approved in writing by County.

14.1.1.3. All such policies shall be written on an occurrence form.

14.1.2. <u>Umbrella Liability Insurance</u>

14.1.2.1. Contractor may procure and maintain, during the life of this Contract, an Umbrella Liability Insurance Policy to meet the policy limit requirements of the required policies if Contractor's underlying policy limits are less than required.

14.1.2.2. There shall be no gap between the per occurrence amount of any underlying policy and the start of the coverage under the Umbrella Liability Insurance Policy. Any Umbrella Liability Insurance Policy shall protect Contractor, County, State, Construction Manager(s), Project Manager(s), and Architect(s) in amounts and including the provisions as set forth in the Supplementary Conditions (if any) and/or Special Conditions, and that complies with all requirements for Commercial General Liability and Automobile Liability and Employers' Liability Insurance.

14.1.2.3. Pollution Liability. Contractor performing hazardous material/abatement work must procure and maintain, during the term of the contract, Pollution Liability Coverage that shall protect the Contractor, County, State, Construction Manager(s), Project Inspector(s), and Architect(s) from all claims related to this work.

14.1.3. <u>Subcontractor(s)</u>: Contractor shall require its Subcontractor(s), if any, to procure and maintain Commercial General Liability Insurance, Automobile Liability Insurance, and Umbrella Liability Insurance (if Subcontractor elects to satisfy, in part the insurance required herein by procuring and maintaining an Umbrella Liability Insurance Policy) with forms of coverage and limits equal to the amounts required of the Contractor.

14.1.4. <u>Workers' Compensation and Employers' Liability Insurance</u>

14.1.4.1. In accordance with provisions of section 3700 of the California Labor Code, the Contractor and every Subcontractor shall be required to secure the payment of compensation to its employees.

14.1.4.2. Contractor shall procure and maintain, during the life of this Contract, Workers' Compensation Insurance and Employers' Liability Insurance for all of its employees engaged in work under this Contract, on/or at the Site of the Project. This coverage shall cover, at a minimum, medical and surgical treatment, disability benefits, rehabilitation therapy, and survivors' death benefits. Contractor shall require its Subcontractor(s), if any, to procure and maintain Workers' Compensation Insurance and Employers' Liability Insurance for all employees of Subcontractor(s). Any class of employee or employees not covered by a Subcontractor's insurance

shall be covered by Contractor's insurance. If any class of employee or employees engaged in Work under this Contract, on or at the Site of the Project, are not protected under the Workers' Compensation Insurance, Contractor shall provide, or shall cause a Subcontractor to provide, adequate insurance coverage for the protection of any employee(s) not otherwise protected before any of those employee(s) commence work.

14.1.5. Builder's Risk Insurance: Builder's Risk "All Risk" Insurance.

County shall procure and maintain, during the life of this Contract, Builder's Risk (Course of Construction), or similar first party property coverage. Coverage is to insure against all risks of accidental physical loss and shall include without limitation the perils of vandalism and/or malicious mischief (both without any limitation regarding vacancy or occupancy), sprinkler leakage, civil authority, theft, sonic disturbance, earthquake, flood, collapse, wind, fire, war, terrorism, lightning, smoke, and rioting. Coverage shall include debris removal, demolition, increased costs due to enforcement of all applicable ordinances and/or laws in the repair and replacement of damaged and undamaged portions of the property, and reasonable costs for the Architect's and engineering services and expenses required as a result of any insured loss upon the Work and Project, including completed Work and Work in progress, to the full insurable value thereof. Contractor shall cover the cost of the deductible.

14.1.6. Proof of Carriage of Insurance and Other Requirements: Endorsements and Certificates

14.1.6.1. Contractor shall not commence Work nor shall it allow any Subcontractor to commence Work under this Contract, until Contractor and its Subcontractor(s) have procured all required insurance and Contractor has delivered in duplicate to the County complete endorsements (or entire insurance policies) and certificates indicating the required coverages have been obtained, and the County has approved these documents.

14.1.6.2. Endorsements, certificates, and insurance policies shall include the following:

14.1.6.2.1. A clause stating:

"This policy shall not be amended, canceled or modified and the coverage amounts shall not be reduced until notice has been mailed to County, Architect, and Construction Manager stating date of amendment, modification, cancellation or reduction. Date of amendment, modification, cancellation or reduction may not be less than thirty (30) days after date of mailing notice."

14.1.6.2.2. Language stating in particular those insured, extent of insurance, location and operation to which insurance applies, expiration date, to whom cancellation and reduction notice will be sent, and length of notice period.

14.1.6.3. All endorsements, certificates and insurance policies shall state that County, its trustees, employees and agents, the State of California, Program Manager(s), Construction Manager(s), Project Manager(s), Inspector(s) and Architect(s) are named additional insureds under all policies except Workers' Compensation Insurance and Employers' Liability Insurance. Additional Insured Endorsements CG 20 33 07 04 and CG 20 37 07 04 shall be provided.

14.1.6.4. Contractor's and Subcontractors' insurance policy(s) shall be primary and non-contributory to any insurance or self-insurance maintained by County, its trustees, employees and/or agents, the State of California, Construction Manager(s), Project Manager(s), Inspector(s), and/or Architect(s).

14.1.6.5. All endorsements shall waive any right to subrogation against any of the named additional insureds.

14.1.6.6. Unless otherwise stated in the Special Conditions, all of Contractor's insurance shall be with insurance companies with an A.M. Best rating of no less than **A: VIII.**

14.1.6.7. The insurance requirements set forth herein shall in no way limit the Contractor's liability arising out of or relating to the performance of the Work or related activities.

14.1.6.8. Failure of Contractor and/or its Subcontractor(s) to comply with the insurance requirements herein shall be deemed a material breach of the Agreement.

14.1.7. Insurance Policy Limits

Unless different limits are indicated in the Special Conditions, the limits of insurance shall not be less than the following amounts:

Commercial General Liability	Split Limit	**$1,000,000 per occurrence; $2,000,000 aggregate**
	Product Liability and Completed Operations	$2,000,000
Automobile Liability – Any Auto	Combined Single Limit	$1,000,000
Workers Compensation		Statutory limits pursuant to State law
Employers' Liability		$1,000,000
Pollution Liability **Hazardous Material / Abatement**	Required for those whose scope includes abatement	$2,000,00 per occurrence; $5,000,000 (per project) aggregate
Builder's Risk (Course of Construction)		By County. Contractor to cover the deductible in the sum of $50,000

14.2 Contract Security – Bonds

14.2.1 Contractor shall furnish two surety bonds issued by a California admitted surety insurer as follows:

14.2.1.1 Performance Bond: A bond in an amount at least equal to one hundred percent (100%) of Contract Price as security for faithful performance of this Contract.

14.2.1.2 Payment Bond: A bond in an amount at least equal to one hundred percent (100%) of the Contract Price as security for payment of persons

performing labor and/or furnishing materials in connection with this Contract.

14.2.2 Cost of bonds shall be included in the Bid and Contract Price.

14.2.3 All bonds related to this Project shall be in the forms set forth in these Contract Documents and shall comply with all requirements of the Contract Documents, including, without limitation, the bond forms.

15. WARRANTY/GUARANTEE/INDEMNITY

15.1. Warranty/Guarantee

15.1.1. The Contractor shall obtain and preserve for the benefit of the County, manufacturer's warranties on materials, fixtures, and equipment incorporated into the Work.

15.1.2. In addition to guarantees required elsewhere, Contractor shall, and hereby does guarantee and warrant all Work furnished on the job against all defects for a period of **ONE (1)** year after the later of the following dates:

15.1.2.1. The date of completion as defined in Public Contract Code section 7107, subdivision (c), or

15.1.2.2. The commissioning date for the Project, if any.

At the County's sole option, Contractor shall repair or replace any and all of that Work, together with any other Work that may be displaced in so doing, that may prove defective in workmanship and/or materials within a **ONE (1)** year period from date of completion as defined above without expense whatsoever to County, as required by the Contract Documents. In the event of failure of Contractor and/or Surety to commence and pursue with diligence said replacements or repairs within ten (10) days after being notified in writing, Contractor and Surety hereby acknowledge and agree that County is authorized to proceed to have defects repaired and made good at expense of Contractor and/or Surety who hereby agree to pay costs and charges therefore immediately on demand.

15.1.3. If, in the opinion of County, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to County or to prevent interruption of operations of County, County will attempt to give the notice required above. If Contractor or Surety cannot be contacted or neither complies with County's request for correction within a reasonable time as determined by County, County may, notwithstanding the above provision, proceed to make any and all corrections and/or provide attentions the County believes are necessary. The costs of correction or attention shall be charged against Contractor and Surety of the guarantees provided in this Article or elsewhere in this Contract.

15.1.4. The above provisions do not in any way limit the guarantees on any items for which a longer guarantee is specified or on any items for which a manufacturer gives a guarantee for a longer period. Contractor shall furnish to County all appropriate guarantee or warranty certificates as indicated in the Specifications or upon request by County.

15.1.5. Nothing herein shall limit any other rights or remedies available to County.

15.2. Indemnity

15.2.1. To the furthest extent permitted by California law, the Contractor shall indemnify, defend with legal counsel reasonably acceptable to the County, keep and hold harmless the County, the Architect, Program Manager, and the Construction Manager, their consultants and separate contractors, and their respective board members, officers, representatives, contractors, agents, and employees, in both individual and official capacities ("Indemnitees"), against all suits, claims, damages, losses, and expenses, including but not limited to attorney's fees, caused by, arising out of, resulting from, or incidental to, the performance of the Work under this Contract by the Contractor, its Subcontractors, vendors, or suppliers, including, without limitation, any such suit, claim, damage, loss, or expense attributable to, without limitation, bodily injury, sickness, disease, death, alleged patent violation or copyright infringement, or to injury to or destruction of tangible property (including damage to the Work itself) including the loss of use resulting therefrom, except to the extent caused by the sole negligence, active negligence, or willful misconduct of the Indemnitees, and/or to any extent that would render these provisions void or unenforceable. This agreement and obligation of the Contractor shall not be construed to negate, abridge, or otherwise reduce any right or obligation of indemnity that would otherwise exist as to any party or person described herein. This indemnification, defense, and hold harmless obligation includes any failure or alleged failure by Contractor to comply with any provision of law, any failure or alleged failure to timely and properly fulfill all of its obligations under the Contract Documents in strict accordance with their terms, and without limitation, any stop payment notice actions or liens, including liens by the California Department of Industrial Relations.

15.2.2. The Contractor shall give prompt notice to the County in the event of any injury (including death), loss, or damage included herein. Without limitation of the provisions herein, if the Contractor's agreement to indemnify, defend, and hold harmless the Indemnitees as provided herein against liability for damage arising out of bodily injury to persons or damage to property caused by or resulting from the negligence of any of the Indemnitees shall to any extent be or be determined to be void or unenforceable, it is the intention of the parties that these circumstances shall not otherwise affect the validity or enforceability of the Contractor's agreement to indemnify, defend, and hold harmless the rest of the Indemnitees, as provided herein, and in the case of any such suits, claims, damages, losses, or expenses caused in part by the default, negligence, or act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, and in part by any of the Indemnitees, the Contractor shall be and remain fully liable on its agreements and obligations herein to the full extent permitted by law.

15.2.3. In any and all claims against any of the Indemnitees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the Contractor's indemnification obligation herein shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

15.2.4. The County may retain so much of the monies due the Contractor as shall be considered necessary, until disposition of any such suit, claims or actions for damages or until the County, Architect and Construction Manager have received written agreement from the Contractor that they will unconditionally defend the County, Architect and Construction Manager, their officers, agents and employees, and pay any damages due by reason of settlement or judgment.

15.2.5. The defense and indemnification obligations hereunder shall survive the completion of Work, including the warranty/guarantee period, and/or the termination of the Agreement.

16. TIME

16.1. Notice to Proceed

16.1.1. County may issue a Notice to Proceed within three (3) months from the date of the Notice of Award. Once Contractor has received the Notice to Proceed, Contractor shall complete the Work within the period of time indicated in the Contract Documents.

16.1.2. In the event that the County desires to postpone issuing the Notice to Proceed beyond this three (3) month period, it is expressly understood that with reasonable notice to the Contractor, the County may postpone issuing the Notice to Proceed. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of the issuance of the Notice to Proceed.

16.1.3. If the Contractor believes that a postponement of issuance of the Notice to Proceed will cause a hardship to Contractor, Contractor may terminate the Contract. Contractor's termination due to a postponement shall be by written notice to County within ten (10) days after receipt by Contractor of County's notice of postponement. It is further understood by Contractor that in the event that Contractor terminates the Contract as a result of postponement by the County, the County shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement. Should Contractor terminate the Contract as a result of a notice of postponement, County shall have the authority to award the Contract to the next lowest responsive responsible bidder.

16.2. Computation of Time / Adverse Weather

16.2.1. The Contractor will only be allowed a time extension for Adverse Weather conditions if in excess of the NOAA data norms and requested by Contractor and only if all of the following conditions are met:

16.2.1.1. The weather conditions constitute Adverse Weather, as defined herein and further specified in the Special Conditions;

16.2.1.2. Contractor can verify that the Adverse Weather caused delays in excess of five hours of the indicated labor required to complete the scheduled tasks of Work on the day affected by the Adverse Weather;

16.2.1.3. The Contractor's crew is dismissed as a result of the Adverse Weather; and

16.2.1.4. The number of days of delay exceed those indicated in the Special Conditions.

16.2.2. A day-for-day extension will only be allowed for those days that impact the critical path and in excess of those indicated in the Special Conditions.

16.2.3. The Contractor shall work seven (7) days per week, if necessary, irrespective of inclement weather, to maintain access and the Construction Schedule, and to protect the Work under construction from the effects of Adverse Weather, all at no further cost to the County.

16.2.4. The Contract Time has been determined with consideration given to the average climate weather conditions prevailing in the County in which the Project is located.

16.3. Hours of Work

16.3.1. Sufficient Forces

Contractor and Subcontractors shall continuously furnish sufficient forces to ensure the prosecution of the Work in accordance with the Construction Schedule.

16.3.2. Performance During Working Hours

Work shall be performed during regular working hours as permitted by the appropriate governmental agency except that in the event of an emergency, or when required to complete the Work in accordance with job progress, Work may be performed outside of regular working hours with the advance written consent of the County and approval of any required governmental agencies. Contractor is expected, if required, to work extended hours, additional / night shifts, weekends and holidays, as necessary, to complete the work within the specified time of completion without any additional cost to the County. All work performed outside of these normal hours / days must be scheduled in advance with the Project Manager and any costs associated with working outside these normal work hours / days (E.g. cost of premium time for inspections) are subject to reimbursement from the Contractor to the County. **All fire alarm testing requiring audible verification must be performed on Sunday(s), unless scheduled and approved otherwise.**

If Project includes work which would be disruptive to normal county operations, or which would be dangerous to building occupants, said work shall be performed during hours as directed by the Project Manager. Examples of such work include, without limitation, concrete saw-cutting, jack hammering, welding, metal cutting, pouring concrete, erecting steel or hoisting equipment over occupied portions of the building or campus, or performing tests requiring all elevators in a group. Contractor shall anticipate and include an allowance for such contingencies in its bid and schedules.

16.4. Progress and Completion

16.4.1. Time of the Essence

Time limits stated in the Contract Documents are of the essence to the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

16.4.2. No Commencement Without Insurance

The Contractor shall not commence operations on the Project or elsewhere prior to the effective date of insurance and bonds. The date of commencement of the Work shall not be changed by the effective date of such insurance. If Contractor commences Work without insurance and bonds, all Work is performed at Contractor's peril and shall not be compensable until and unless Contractor secures bonds and insurance pursuant to the terms of the Contract Documents and subject to County claim for damages.

16.5. Schedule

Contractor shall provide to County, Construction Manager, and Architect a schedule in conformance with the Contract Documents and as required in the Notice to Proceed and the Contractor's Submittals and Schedules section of these General Conditions.

16.6. Expeditious Completion

The Contractor shall proceed expeditiously with adequate forces and shall achieve Completion within the Contract Time.

17. EXTENSIONS OF TIME – LIQUIDATED DAMAGES

17.1. Liquidated Damages

Contractor and County hereby agree that the exact amount of damages for failure to complete the Work within the time specified is extremely difficult or impossible to determine. If the Work is not completed within the time specified in the Contract Documents, it is understood that the County will suffer damage. It being impractical and unfeasible to determine the amount of actual damage, it is agreed the Contractor shall pay to County as fixed and liquidated damages, and not as a penalty, the amount set forth in the Agreement for each calendar day of delay in completion. Contractor and its Surety shall be liable for the amount thereof pursuant to Government Code section 53069.85.

17.2. Excusable Delay

17.2.1. Contractor shall not be charged for liquidated damages because of any delays in completion of Work which are not the fault of Contractor or its Subcontractors, including acts of God as defined in Public Contract Code section 7105, acts of enemy, epidemics, and quarantine restrictions. Contractor shall, within five (5) calendar days of beginning of any delay, notify County in writing of causes of delay including documentation and facts explaining the delay. County shall review the facts and extent of any delay and shall grant extension(s) of time for completing Work when, in its judgment, the findings of fact justify an extension. Extension(s) of time shall apply only to that portion of Work that is on the critical path and affected by delay, and shall not apply to other portions of Work not so affected. An extension of time may only be granted if Contractor has timely submitted the Construction Schedule as required herein.

17.2.2. Contractor shall notify the County pursuant to the claims provisions in these General Conditions of any anticipated delay and its cause. Following submission of a claim, the County may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the Work might be delayed thereby.

17.2.3. In the event the Contractor requests an extension of Contract Time for unavoidable delay, such request shall be submitted in accordance with the provisions in the Contract Documents governing changes in Work. When requesting time, requests must be submitted with full justification and documentation. If the Contractor fails to submit justification, it waives its right to a time extension at a later date. Such justification must be based on the official Construction Schedule as updated at the time of occurrence of the delay or execution of Work related to any changes to the Scope of Work. Any claim for delay must include the following information as support, without limitation:

17.2.3.1. The duration of the activity relating to the changes in the Work and the resources (manpower, equipment, material, etc.) required to perform the activities within the stated duration.

17.2.3.2. Specific logical ties to the Contract Schedule for the proposed changes and/or delay showing the activity/activities in the Construction Schedule that are affected by the change and/or delay. (A portion of any delay of seven (7) days or more must be provided.)

17.2.3.3. A recovery schedule must be submitted.

17.3. No Additional Compensation for Delays Within Contractor's Control

17.3.1. Contractor is aware that governmental agencies, including, without limitation, the Division of the State Architect, the Department of General Services, gas companies, electrical utility companies, water districts, and other agencies may have to approve Contractor-prepared drawings or approve a proposed installation. Accordingly, Contractor shall include in its bid, time for possible review of its drawings and for reasonable delays and damages that may be caused by such agencies. Thus, Contractor is not entitled to make a claim for damages or delays arising from the review of Contractor's drawings.

17.3.2. Contractor shall only be entitled to compensation for delay when all of the following conditions are met:

17.3.2.1. The County is responsible for the delay;

17.3.2.2. The delay is unreasonable under the circumstances involved;

17.3.2.3. The delay was not within the contemplation of the County and Contractor; and

17.3.2.4. Contractor complies with the claims procedure of the Contract Documents.

17.3.2.5. Recovery of damages shall not exceed the value of the direct project overhead cost (Contractor's general conditions) per day. The cost per day shall be determined by the Contractor's total general conditions (not to exceed more than 8% of the sum subcontractors) divided by the number of original contract time in calendar days.

17.4. Float or Slack in the Schedule

Float or slack is the amount of time between the early start date and the late start date, or the early finish date and the late finish date, of any of the activities in the schedule. Float or slack is not for the exclusive use of or benefit of either the County or the Contractor, but its use shall be determined solely by the County.

18. CHANGES IN THE WORK

18.1. No Changes Without Authorization

18.1.1. There shall be no change whatsoever in the Drawings, Specifications, or in the Work without an executed Change Order or a written Construction Change Directive authorized by the County as herein provided. County shall not be liable for the cost of any extra work or any substitutions, changes, additions, omissions, or deviations from the Drawings and Specifications unless the County's governing board has authorized the same and the cost thereof has been approved in writing by Change Order or Construction Change Directive. No extension of time for performance of the Work shall be allowed hereunder unless claim for such extension is made at the time changes in the Work are ordered, and such time duly adjusted in writing in the Change Order or Construction Change Directive. The provisions of the Contract Documents shall apply to all such changes, additions, and omissions with the same effect as if originally embodied in the Drawings and Specifications.

18.1.2. Contractor shall perform immediately all work that has been authorized by a fully executed Change Order or Construction Change Directive. Contractor shall be fully responsible for any and all delays and/or expenses caused by Contractor's failure to expeditiously perform this Work.

18.1.3. Should any Change Order result in an increase in the Contract Price, the cost of that Change Order shall be agreed to, in writing, in advance by Contractor and County and be subject to the monetary limitations set forth in the contract documents. In the event that Contractor proceeds with any change in Work without a Change Order executed by the County or Construction Change Directive, Contractor waives any claim of additional compensation or time for that additional work.

18.1.4. Contractor understands, acknowledges, and agrees that the reason for County authorization is so that County may have an opportunity to analyze the Work and decide whether the County shall proceed with the Change Order or alter the Project so that a change in Work becomes unnecessary.

18.1.5. General Conditions/Requirements, in direct labor, supervision, estimating, mark-up, bonds, etc. shall not be allowed on changes being funded by a contractor allowance.

18.1.6. Where a change results in both adds and credits, and the change is not being funded by an allowance, mark-up and bonds shall be applied to the net difference of the adds and credits, not prior.

18.2. Architect Authority

The Architect will have authority to order minor changes in the Work not involving any adjustment in the Contract Price, or an extension of the Contract Time, or a change that is inconsistent with the intent of the Contract Documents. These changes shall be effected by written Change Order, Construction Change Directive, or by Architect's response(s) to RFI(s).

18.3. Change Orders

18.3.1. A Change Order is a written instrument prepared and issued by the County and/or the Architect and signed by the County (as authorized by the County's Board of Trustees), the Contractor, the Architect, and approved by the Project Inspector (if necessary), stating their agreement regarding all of the following:

18.3.1.1. A description of a change in the Work;

18.3.1.2. The amount of the adjustment in the Contract Price, if any; and

18.3.1.3. The extent of the adjustment in the Contract Time, if any.

18.4. Construction Change Directives

18.4.1. A Construction Change Directive is a written order prepared and issued by the County, the Construction Manager, and/or the Architect and signed by the County and the Architect, directing a change in the Work. The County may as provided by law, by Construction Change Directive and without invalidating the Contract, order changes in the Work consisting of additions, deletions, or other revisions. In the case of a Construction Change Directive being issued, Contractor must commence Work immediately as to not delay the completion of the Project. Any dispute as to the sum of the Construction Change Directive or timing of payment shall be resolved pursuant to the Payment and Claims and Disputes provisions herein.

18.4.2. The County may issue a Construction Change Directive in the absence of agreement on the terms of a Change Order.

18.5. Force Account Directives

18.5.1. When work, for which a definite price has not been agreed upon in advance, is to be paid for on a force account basis, all direct costs necessarily incurred and paid by the Contractor for labor, material, and equipment used in the performance of that Work, shall be subject to the approval of the County and compensation will be determined as set forth herein.

18.5.2. The County will issue a Force Account Directive to proceed with the Work on a force account basis, and a not-to-exceed budget will be established by the County.

18.5.3. All requirements regarding direct cost for labor, labor burden, material, equipment, and markups on direct costs for overhead and profit described in this section shall apply to Force Account Directives. However, the County will only pay for actual costs verified in the field by the County or its authorized representative(s) on a daily basis.

18.5.4. The Contractor shall be responsible for all cost related to the administration of Force Account Directive. The markup for overheard and profit for Contractor modifications shall be full compensation to the Contractor to administer Force Account Directive.

18.5.5. The Contractor shall notify the County or its authorized representative(s) at least twenty-four (24) hours prior to proceeding with any of the force account work. Furthermore, the Contractor shall notify the County when it has consumed eighty percent (80%) of the budget, and shall not exceed the budget unless specifically authorized in writing by the County. The Contractor will not be compensated for force account work in the event that the Contractor fails to timely notify the County regarding the commencement of force account work, or exceeding the force account budget.

18.5.6. The Contractor shall diligently proceed with the work, and on a daily basis, submit a daily force account report on a form supplied by the County no later than 5:00 p.m. each day. The report shall contain a detailed itemization of the daily labor, material, and equipment used on the force account work only. The names of the individuals performing the force account work shall be included on the daily force account reports. The type and model of equipment shall be identified and listed. The County will review the information contained in the reports, and sign the reports no later than the next work day, and return a copy of the report to the Contractor for their records. The County will not sign, nor will the Contractor receive compensation for work the County cannot verify. The Contractor will provide a weekly force account summary indicating the status of each Force Account Directive in terms of percent complete of the not-to-exceed budget and the estimated percent complete of the work.

18.5.7. In the event the Contractor and the County reach a written agreement on a set cost for the work while the work is proceeding based on a Force Account Directive, the Contractor's signed daily force account reports shall be discontinued and all previously signed reports shall be invalid.

18.6. Price Request

18.6.1. Definition of Price Request

A Price Request ("PR") is a written request prepared by the Architect requesting the Contractor to submit to the County and the Architect an estimate of the effect of a proposed change in the Work on the Contract Price and the Contract Time.

18.6.2. Scope of Price Request

A Price Request shall contain adequate information, including any necessary Drawings and Specifications, to enable Contractor to provide the cost breakdowns required herein. The Contractor shall not be entitled to any additional compensation for preparing a response to a Price Request, whether ultimately accepted or not.

18.7. Proposed Change Order

18.7.1. Definition of Proposed Change Order

A Proposed Change Order ("PCO") is a written request prepared by the Contractor requesting that the County and the Architect issue a Change Order based upon a proposed change to the Work.

18.7.2. Changes in Contract Price

A PCO shall include breakdowns pursuant to the revisions herein to validate any change in Contract Price.

18.7.3. Changes in Time

A PCO shall also include any changes in time required to complete the Project. Any additional time requested shall not be the number of days to make the proposed change, but must be based upon the impact to the Construction Schedule as defined in the Contract Documents. If Contractor fails to request a time extension in a PCO, then the Contractor is thereafter precluded from requesting time and/or claiming a delay.

18.7.4. Unknown and/or Unforeseen Conditions

If Contractor submits a PCO requesting an increase in Contract Price and/or Contract Time that is based at least partially on Contractor's assertion that Contractor has encountered unknown and/or unforeseen condition(s) on the Project, then Contractor shall base the PCO on provable information that, beyond a reasonable doubt and to the County's satisfaction, demonstrates that the unknown and/or unforeseen condition(s) were actually unknown and/or unforeseen and that the condition(s) were reasonably unknown and/or unforeseen. If not, the County shall deny the PCO and the Contractor shall complete the Project without any increase in Contract Price and/or Contract Time based on that PCO.

18.8. Format for Proposed Change Order

18.8.1. The following format shall be used as applicable by the County and the Contractor (e.g. Change Orders, PCO's) to communicate proposed additions and deductions to the Contract, supported by attached documentation.

	WORK PERFORMED OTHER THAN BY CONTRACTOR	**ADD**	**DEDUCT**
(a)	**Material** (attach itemized quantity and unit cost plus sales tax)		
(b)	**Add Labor** (attach itemized hours and rates, fully encumbered)		
(c)	**Add Equipment** (attach suppliers' invoice)		
(d)	**Subtotal**		
(e)	**Add overhead and profit for any and all tiers of Subcontractor,** the total not to exceed ten percent (10%) of **item (d)**		
(f)	**Subtotal**		
(g)	**Add overhead and profit for Contractor**, not to exceed five percent (5%) of **Item (f)**		
(h)	**Subtotal**		
(i)	**Add Bond and Insurance,** not to exceed one percent (1%) of Item (h)		
(j)	**TOTAL**		
(k)	**Time**	**_____ Days**	

	WORK PERFORMED BY CONTRACTOR	**ADD**	**DEDUCT**
(a)	**Material** (attach itemized quantity and unit cost plus sales tax)		
(b)	**Add Labor** (attach itemized hours and rates, fully encumbered)		
(c)	**Add Equipment** (attach suppliers' invoice)		
(d)	**Subtotal**		
(e)	**Add overhead and profit for Contractor,** not to exceed fifteen percent (15%) of **item (d).**		
(f)	**Subtotal**		
(g)	**Add Bond and Insurance,** not to exceed one percent (1%) of Item (f)		
(h)	**TOTAL**		
(i)	**Time**	**_____ Days**	

18.8.2. Labor. Contractor shall be compensated for the costs of labor actually and directly utilized in the performance of the Work. Such labor costs shall be limited to field labor for which there is a prevailing wage rate classification. Wage rates for labor shall not exceed the prevailing wage rates in the locality of the Site and shall be in the labor classification(s) necessary for the performance of the Work. Labor costs shall exclude costs incurred by the Contractor in preparing estimate(s) of the costs of the change in the Work, in the maintenance of records relating to the costs of the change in the Work, coordination and assembly of materials and information relating to the change in the Work or performance thereof, or the supervision and other overhead and general conditions costs associated with the change in the Work or performance thereof.

18.8.3. Materials. Contractor shall be compensated for the costs of materials necessarily and actually used or consumed in connection with the performance of the change in the Work. Costs of materials may include reasonable costs of transportation from a source closest to the Site of the Work and delivery to the Site. If discounts by material suppliers are available for materials necessarily used in the performance of the change in the Work, they shall be credited to the County. If materials necessarily used in the performance of the change in the Work are obtained from a supplier or source owned in whole or in part by the Contractor, compensation therefor shall not exceed the current wholesale price for such materials. If, in the reasonable opinion of the County, the costs asserted by the Contractor for materials in connection with any change in the Work are excessive, or if the Contractor fails to provide satisfactory evidence of the actual costs of such materials from its supplier or vendor of the same, the costs of such materials and the County's obligation to pay for the same shall be limited to the then lowest wholesale price at which similar materials are available in the quantities required to perform the change in the Work. The County may elect to furnish materials for the change in the Work, in which event the Contractor shall not be compensated for the costs of furnishing such materials or any mark-up thereon.

18.8.4. Equipment. As a precondition for the County's duty to pay for Equipment rental or loading and transportation, Contractor shall provide satisfactory evidence of the actual costs of Equipment from the supplier, vendor or rental agency of same. Contractor's use of their own equipment, the rental rate shall not exceed that of local rental rates. Contractor shall be compensated for the actual cost of the necessary and direct use of Equipment in the performance of the change in the Work. Use of such Equipment in the performance of the change in the Work shall be compensated in increments of fifteen (15) minutes. Rental time for Equipment moved by its own power shall include time required to move such Equipment to the site of the Work from the nearest available rental source of the same. If Equipment is not moved to the Site by its own power, Contractor will be compensated for the loading and transportation costs in lieu of rental time. The foregoing notwithstanding, neither moving time or loading and transportation time shall be allowed if the Equipment is used for performance of any portion of the Work other than the change in the Work. Unless prior approval in writing is obtained by the Contractor from the Architect, the Project Inspector and the County, no costs or compensation shall be allowed for time while Construction Equipment is inoperative, idle or on standby, for any reason. Contractor shall not be entitled to an allowance or any other compensation for Equipment or tools used in the performance of change in the Work where such Equipment or tools have a replacement value of **$500.00** or less. Equipment costs claimed by the Contractor in connection with the performance of any Work shall not exceed rental rates established by distributors or construction equipment rental agencies in the locality of the Site; any costs asserted which exceed such rental rates shall not be allowed or paid. Unless otherwise specifically approved in writing by the Architect, the Project Inspector and the

County, the allowable rate for the use of Equipment in connection with the Work shall constitute full compensation to the Contractor for the cost of rental, fuel, power, oil, lubrication, supplies, necessary attachments, repairs or maintenance of any kind, depreciation, storage, insurance, labor (exclusive of labor costs of the Equipment operator), and any and all other costs incurred by the Contractor incidental to the use of such Equipment.

18.9. Change Order Certification

18.9.1. All Change Orders and PCOs must include the following certification by the Contractor:

18.9.1.1. The undersigned Contractor approves the foregoing as to the changes, if any, and the Contract Price specified for each item and as to the extension of time allowed, if any, for completion of the entire Work as stated herein, and agrees to furnish all labor, materials, and service, and perform all work necessary to complete any additional work specified for the consideration stated herein. Submission of sums which have no basis in fact or which Contractor knows are false are at the sole risk of Contractor and may be a violation of the False Claims Act set forth under Government Code section 12650 et seq. It is understood that the changes herein to the Contract shall only be effective when approved by the governing board of the County.

18.9.1.2. It is expressly understood that the value of the extra Work or changes expressly includes any and all of the Contractor's costs and expenses, direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Any costs, expenses, damages, or time extensions not included are deemed waived.

18.10. Determination of Change Order Cost

18.10.1. The amount of the increase or decrease in the Contract Price from a Change Order, if any, shall be determined in one or more of the following ways as applicable to a specific situation and at the County's discretion:

18.10.1.1. County acceptance of a PCO;

18.10.1.2. By unit prices contained in Contractor's original bid;

18.10.1.3. By agreement between County and Contractor.

18.11. Deductive Change Orders

All deductive Change Order(s) must be prepared pursuant to the provisions herein. If Contractor offers a proposed amount for a deductive Change Order(s), Contractor shall include a minimum of five percent (5%) total profit and overhead to be deducted with the amount of the work of the Change Order(s). If Subcontractor work is involved, Subcontractors shall also include a minimum of five percent (5%) profit and overhead to be deducted with the amount of its deducted work. Any deviation from this provision shall not be allowed.

18.12. Addition or Deletion of Alternate Bid Item(s)

If the Bid Form and Proposal includes proposal(s) for Alternate Bid Item(s), during Contractor's performance of the Work, the County may elect to add or delete any such Alternate Bid Item(s) if not included in the Contract at the time of award. If the County elects to add or delete Alternate Bid Item(s) after Contract award, the cost or credit for such Alternate Bid Item(s) shall be as set forth in the Bid Form and Proposal unless the parties agree to a different price and the Contract Time shall be adjusted by the number of

days allocated in the Contract Documents. If days are not allocated in the Contract Documents, the Contract Time shall be equitably adjusted.

18.13. Discounts, Rebates, and Refunds

For purposes of determining the cost, if any, of any change, addition, or omission to the Work hereunder, all trade discounts, rebates, refunds, and all returns from the sale of surplus materials and equipment shall accrue and be credited to the Contractor, and the Contractor shall make provisions so that such discounts, rebates, refunds, and returns may be secured, and the amount thereof shall be allowed as a reduction of the Contractor's cost in determining the actual cost of construction for purposes of any change, addition, or omission in the Work as provided herein.

18.14. Accounting Records

With respect to portions of the Work performed by Change Orders and Construction Change Directives, the Contractor shall keep and maintain cost-accounting records satisfactory to the County, which shall be available to the County on the same terms as any other books and records the Contractor is required to maintain under the Contract Documents. Such records shall include without limitation hourly records for Labor and Equipment and itemized records of materials and Equipment used that day in connection with the performance of any Work. All records maintained hereunder shall be subject to inspection, review and/or reproduction by the County, the Architect or the Project Inspector upon request. In the event that the Contractor fails or refuses, for any reason, to maintain or make available for inspection, review and/or reproduction such records, the County's reasonable good faith determination of the extent of adjustment to the Contract Price shall be final, conclusive, dispositive and binding upon Contractor.

18.15. Notice Required

If the Contractor desires to make a claim for an increase in the Contract Price, or any extension in the Contract Time for completion, it shall notify the County pursuant to the provisions herein, including the Article on Claims and Disputes. No claim shall be considered unless made in accordance with this subparagraph. Contractor shall proceed to execute the Work even though the adjustment may not have been agreed upon. Any change in the Contract Price or extension of the Contract Time resulting from such claim shall be authorized by a Change Order.

18.16. Applicability to Subcontractors

Any requirements under this Article shall be equally applicable to Change Orders or Construction Change Directives issued to Subcontractors by the Contractor to the extent as required by the Contract Documents.

18.17. Alteration to Change Order Language

Contractor shall not alter Change Orders or reserve time in Change Orders. Contractor shall execute finalized Change Orders and proceed under the provisions herein with proper notice.

18.18. Failure of Contractor to Execute Change Order

Contractor shall be in default of the Contract if Contractor fails to execute a Change Order when the Contractor agrees with the addition and/or deletion of the Work in that Change Order.

19. REQUEST FOR INFORMATION

19.1. Any Request for Information (RFI) shall reference all applicable Contract Document(s), including Specification section(s), detail(s), page number(s), drawing number(s), and sheet number(s), etc. The Contractor shall make suggestions and interpretations of the issue raised by each Request for Information. A Request for Information cannot modify the Contract Price, Contract Time, or the Contract Documents.

19.2. The Contractor shall be responsible for any costs incurred for professional services that County may deduct from any amounts owing to the Contractor, if a Request for Information requests an interpretation or decision of a matter where the information sought is equally available to the party making the request. County, at its sole discretion, shall deduct from and/or invoice Contractor for all the professional services arising herein.

19.3. The contractor is responsible for the necessary planning of their trade related work. The delinquency of proper planning, resulting in RFI'(s), shall not grant them any additional days.

20. PAYMENTS

20.1. Contract Price

The Contract Price is stated in the Agreement and, including authorized adjustments, is the total amount payable by the County to the Contractor for performance of the Work under the Contract Documents.

20.2. Applications for Progress Payments

20.2.1. Procedure for Applications for Progress Payments

20.2.1.1. Application for Progress Payment

20.2.1.1.1. On the twenty fifth (25th) day of each calendar month during the progress of the Work, Contractor shall submit to the Construction Manager an itemized Application for Payment for operations completed in accordance with the Schedule of Values. Such application shall be notarized, if required, and supported by the following or each portion thereof unless waived by the County in writing:

20.2.1.1.1.1. The amount paid to the date of the Application to the Contractor, to all its Subcontractors, and all others furnishing labor, material, or equipment for its Contract;

20.2.1.1.1.2. The amount being requested under the Application for Payment by the Contractor on its own behalf and separately stating the amount requested on behalf of each of the Subcontractors and all others furnishing labor, material, and equipment under the Contract;

20.2.1.1.1.3. The balance that will be due to each of such entities after said payment is made;

20.2.1.1.1.4. A certification that the As-Built Drawings and annotated Specifications are current;

20.2.1.1.1.5. Itemized breakdown of work done for the purpose of requesting partial payment;

20.2.1.1.1.6. An updated and acceptable construction schedule in conformance with the provisions herein;

20.2.1.1.1.7. The additions to and subtractions from the Contract Price and Contract Time;

20.2.1.1.1.8. A total of the retentions held;

20.2.1.1.1.9. Material invoices, evidence of equipment purchases, rentals, and other support and details of cost as the County may require from time to time;

20.2.1.1.1.10. The percentage of completion of the Contractor's Work by line item;

20.2.1.1.1.11. Schedule of Values updated from the preceding Application for Payment;

20.2.1.1.1.12. A duly completed and executed conditional waiver and release upon progress payment compliant with Civil Code section 3262, or after July 1, 2012, Civil Code section 8132, from the Contractor and each subcontractor of any tier and supplier to be paid from the current progress payment;

20.2.1.1.1.13. A duly completed and executed unconditional waiver and release upon progress payment compliant with Civil Code section 3262, or after July 1, 2012, Civil Code section 8134, from the Contractor and each subcontractor of any tier and supplier that was paid from the previous progress payment(s); and

20.2.1.1.1.14. A certification by the Contractor of the following:

The Contractor warrants title to all Work performed as of the date of this payment application. The Contractor further warrants that all Work performed as of the date of this payment application is free and clear of liens, claims, security interests, or encumbrances in favor of the Contractor, Subcontractors, material and equipment suppliers, workers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work, except those of which the County has been informed.

20.2.1.1.1.15. The Contractor shall be subject to the False Claims Act set forth under Government Code section 12650 et seq., for information provided with any Application for Progress Payment.

20.2.1.1.1.16. Confirmation that all certified payroll records ("CPR(s)") for each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work for the period of the Application for Payment has been transmitted have been furnished to the Labor Commissioner in accordance with Labor Code section 1771.4(a)(3). And, in accordance with the County's labor compliance program, at the sole discretion of the County, the County shall not make any payment to Contractor until:

20.2.1.1.1.16.1 Contractor and/or its Subcontractor(s) provide CPRs acceptable to the County weekly for all weeks any journeyman, apprentice, worker or other employee was employed in connection with the Work directly to the Labor Commissioner, if the Project is subject to

State labor compliance, or to the County and/or its designee if the Project is subject to a LCP, and within ten (10) days of any request by the County or the Labor Commissioner in accordance with section 16461 of Title 8 of the California Code of Regulations, and

20.2.1.1.1.16.2 The County is given sufficient time to review and/or audit the CPRs to determine their acceptability. Any delay in Contractor and/or its Subcontractor(s) providing CPRs to the County in a timely manner will directly delay the County's review and/or audit of the CPRs and Contractor's payment.

20.2.2. Prerequisites for Progress Payments

20.2.2.1. First Payment Request: The following items, if applicable, must be completed before the County will accept and/or process the Contractor's first payment request:

20.2.2.1.1. Installation of the Project sign (If applicable);

20.2.2.1.2. Installation of field office (If applicable);

20.2.2.1.3. Installation of temporary facilities and fencing(If applicable);

20.2.2.1.4. Schedule of Values;

20.2.2.1.5. Contractor's Construction Schedule (If applicable);

20.2.2.1.6. Schedule of unit prices, if applicable;

20.2.2.1.7. Submittal Schedule;

20.2.2.1.8. Receipt by Architect of all submittals due as of the date of the payment application;

20.2.2.1.9. Copies of necessary permits;

20.2.2.1.10. Copies of authorizations and licenses from governing authorities;

20.2.2.1.11. Initial progress report;

20.2.2.1.12. Surveyor qualifications (If applicable);

20.2.2.1.13. Written acceptance of County's survey of rough grading, if applicable;

20.2.2.1.14. List of all Subcontractors, with names, license numbers, telephone numbers, and Scope of Work;

20.2.2.1.15. Executed Contract with County

20.2.2.1.16. All bonds and insurance endorsements; and

20.2.2.1.17. Resumes of Contractor's project manager, and if applicable, job site secretary, record documents recorder, and job site superintendent.

20.2.2.1.18. Submission of Contractor's IIPP/ Safety Plan

20.2.2.1.19. Submission of Contractor's HIPP / Heat Illness Prevention Plan

20.2.2.1.20. Submit to Construction Manager a copy of its Heat Illness Prevention Plan (HIPP).

20.2.2.1.21. Submit to Construction Manager, and update as required, Contractor's Hazard Communication Program, Safety Data Sheets (SDS), and chemical inventory list for the project.

20.2.2.1.22. Submit a list of all First Aid/CPR trained employees on the project, expiration dates, and update when requested by Construction Manager.

20.2.2.1.23. Submit to Construction Manager a list identifying their "Competent Person" for the following activities (as they apply) such as, but not limited to the following, along with documented training:

20.2.2.1.24. Demolition

20.2.2.1.25. Lead Abatement

20.2.2.1.26. Asbestos Abatement

20.2.2.1.27. Ladder Inspection

20.2.2.1.28. Trench/Excavation and Shoring

20.2.2.1.29. Scaffold Erection and Inspection

20.2.2.1.30. Fall Protection

20.2.2.1.31. Steel Erection

20.2.2.1.32. Submit to Construction Manager a list of their Forklift Operators that will be on the project, copies of their certification, expiration date, and update when new operators arrive on site.

20.2.2.1.33. A Competent Person shall be readily available on-site during any of the referenced activities above, or activity identified by Construction Manager and/or Owner.

20.2.2.2. Second Payment Request. The County will not process the second payment request until and unless all submittals and Shop Drawings have been accepted for review by the Architect.

20.2.2.3. No Waiver of Criteria. Any payments made to Contractor where criteria set forth herein have not been met shall not constitute a waiver of said criteria by County. Instead, such payment shall be construed as a good faith effort by County to resolve differences so Contractor may pay its Subcontractors and suppliers. Contractor agrees that failure to submit such items may constitute a breach of contract by Contractor and may subject Contractor to termination.

20.3. Progress Payments

20.3.1. County's Approval of Application for Payment

20.3.1.1. Upon receipt of an Application for Payment, The County shall act in accordance with both of the following:

20.3.1.1.1. Each Application for Payment shall be reviewed by the County as soon as practicable after receipt for the purpose of determining that the Application for Payment is a proper Application for Payment.

20.3.1.1.2. Any Application for Payment determined not to be a proper Application for Payment suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven (7) days, after receipt. An Application for Payment returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the Application for Payment is not proper. The number of days available to the County to make a payment without incurring interest pursuant to this section shall be reduced by the number of days by which the County exceeds this seven-day return requirement.

20.3.1.1.3. An Application for Payment shall be considered properly executed if funds are available for payment of the Application for Payment, and payment is not delayed due to an audit inquiry by the financial officer of the County.

20.3.1.2. The County's review of the Contractor's Application for Payment will be based on the County's and the Architect's observations at the Site and the data comprising the Application for Payment that the Work has progressed to the point indicated and that, to the best of the County's and the Architect's knowledge, information, and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to:

20.3.1.2.1. Observation of the Work for general conformance with the Contract Documents,

20.3.1.2.2. Results of subsequent tests and inspections,

20.3.1.2.3. Minor deviations from the Contract Documents correctable prior to completion, and

20.3.1.2.4. Specific qualifications expressed by the Architect.

20.3.1.3. County's approval of the certified Application for Payment shall be based on Contractor complying with all requirements for a fully complete and valid certified Application for Payment.

20.3.2. Payments to Contractor

20.3.2.1. Within thirty (30) days after approval of the Application for Payment, Contractor shall be paid a sum equal to ninety percent (95%), or a lesser percentage if a higher retention amount is required pursuant to Public Contract Code section 7201(b) (4), of the value of the Work performed (as verified by Architect and Inspector and certified by Contractor) up to the last day of the previous month, less the aggregate of previous payments and amount to be withheld. The value of the Work completed shall be Contractor's best estimate. No inaccuracy or error in said estimate shall operate to release the Contractor, or any Surety upon any bond, from damages arising from such Work, or from the County's right to enforce each and every provision of this Contract, and the County shall have the right subsequently to correct any error made in any estimate for payment.

20.3.2.2. The Contractor shall not be entitled to have any payment requests processed, or be entitled to have any payment made for Work performed, so long as any lawful or proper direction given by the County concerning the Work, or any portion thereof, remains incomplete.

20.3.2.3. If the County fails to make any progress payment within thirty (30) days after receipt of an undisputed and properly submitted Application for Payment from the Contractor, the County shall pay interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure.

20.3.3. No Waiver

No payment by County hereunder shall be interpreted so as to imply that County has inspected, approved, or accepted any part of the Work. Notwithstanding any payment, the County may enforce each and every provision of this Contract. The County may correct or require correction of any error subsequent to any payment.

20.4. Decisions to Withhold Payment

20.4.1. Reasons to Withhold Payment

The County may withhold payment in whole, or in part, to the extent reasonably necessary to protect the County if, in the County's opinion, the representations to the County required herein cannot be made. The County may withhold payment, in whole, or in part, to such extent as may be necessary to protect the County from loss because of, but not limited to:

20.4.1.1. Defective Work not remedied within **FORTY-EIGHT (48)** hours of written notice to Contractor;

20.4.1.2. Stop Payment Notices or other liens served upon the County as a result of the Contract;

20.4.1.3. Liquidated damages assessed against the Contractor;

20.4.1.4. The cost of completion of the Contract if there exists reasonable doubt that the Work can be completed for the unpaid balance of the Contract Price or by the completion date;

20.4.1.5. Damage to the County or other contractor(s);

20.4.1.6. Unsatisfactory prosecution of the Work by the Contractor;

20.4.1.7. Failure to store and properly secure materials;

20.4.1.8. Failure of the Contractor to submit, on a timely basis, proper, sufficient, and acceptable documentation required by the Contract Documents, including, without limitation, a Construction Schedule, Schedule of Submittals, Schedule of Values, Monthly Progress Schedules, Shop Drawings, Product Data and samples, Proposed product lists, executed Change Orders, and/or verified reports;

20.4.1.9. Failure of the Contractor to maintain As-Built Drawings;

20.4.1.10. Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment;

20.4.1.11. Unauthorized deviations from the Contract Documents;

20.4.1.12. Failure of the Contractor to prosecute the Work in a timely manner in compliance with the Construction Schedule, established progress schedules, and/or completion dates;

20.4.1.13. Failure to provide acceptable certified payroll records, as required by these Contract Documents or by written request; for each journeyman, apprentice, worker, or other employee employed by the Contractor and/or by each Subcontractor in connection with the Worker if payroll records are delinquent or inadequate;

20.4.1.14. Failure to properly pay prevailing wages as required in Labor Code section 1720 et seq. or failure to comply with any other Labor Code requirements;

20.4.1.15. Failure to comply with any applicable federal statutes and regulations regarding minimum wages, withholding, payrolls and basic records, apprentice and trainee employment requirements, equal employment opportunity requirements, Copeland Act requirements, Davis-Bacon Act and related requirements, Contract Work Hours and Safety Standards Act requirements, if applicable;

20.4.1.16. Failure to properly maintain or clean up the Site;

20.4.1.17. Failure to timely indemnify, defend, or hold harmless the County;

20.4.1.18. Any payments due to the County, including but not limited to payments for failed tests, utilities changes, or permits;

20.4.1.19. Failure to pay Subcontractor(s) or supplier(s) as required by law and by the Contract Documents;

20.4.1.20. Failure to pay any royalty, license or similar fees;

20.4.1.21. Contractor is otherwise in breach, default, or in substantial violation of any provision of this Contract; and

20.4.1.22. Failure to perform any implementation and/or monitoring required by any SWPPP for the Project and/or the imposition of any penalties or fines therefore whether imposed on the County or Contractor.

20.4.2. Reallocation of Withheld Amounts

20.4.2.1. County may, in its discretion, apply any withheld amount to pay outstanding claims or obligations as defined herein. In so doing, County shall make such payments on behalf of Contractor. If any payment is so made by County, then that amount shall be considered a payment made under Contract by County to Contractor and County shall not be liable to Contractor for any payment made in good faith. These payments may be made without prior judicial determination of claim or obligation. County will render Contractor an accounting of funds disbursed on behalf of Contractor.

20.4.2.2. If Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents or fails to perform any provision thereof, County may, after **FORTY-EIGHT (48)** hours written notice to the Contractor and, without prejudice to any other remedy, make good such deficiencies. The County shall adjust the total Contract Price by reducing the amount thereof by the cost of making good such deficiencies. If County deems it inexpedient to correct Work that is damaged, defective, or not done in accordance with Contract provisions, an equitable reduction in the Contract Price (of at least one hundred twenty-five percent (125%) of the estimated reasonable value of the nonconforming Work) shall be made therefor.

20.4.3. Payment After Cure

When Contractor removes the grounds for declining approval, payment shall be made for amounts withheld because of them. No interest shall be paid on any retainage or amounts withheld due to the failure of the Contractor to perform in accordance with the terms and conditions of the Contract Documents.

20.5. Subcontractor Payments

20.5.1. Payments to Subcontractors

No later than ten (10) days after receipt, or pursuant to Business and Professions Code section 7108.5 and Public Contract Code section 7107, the Contractor shall pay to each Subcontractor, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to its Sub-subcontractors in a similar manner.

20.5.2. No Obligation of County for Subcontractor Payment

The County shall have no obligation to pay, or to see to the payment of, money to a Subcontractor except as may otherwise be required by law.

20.5.3. Joint Checks

County shall have the right in its sole discretion, if necessary for the protection of the County, to issue joint checks made payable to the Contractor and Subcontractors and material or equipment suppliers. The joint check payees shall be responsible for the allocation and disbursement of funds included as part of any such joint payment. In no event shall any joint check payment be construed to create any contract between the County and a Subcontractor of any tier, any obligation from the County to such Subcontractor, or rights in such Subcontractor against the County.

21. COMPLETION OF THE WORK

21.1. Completion

21.1.1. County will accept completion of Contract and have the Notice of Completion recorded when the entire Work shall have been completed to the satisfaction of County.

21.1.2. The Work may only be accepted as complete by action of the governing board of the County.

21.1.3. County, at its sole option, may accept completion of Contract and have the Notice of Completion recorded when the entire Work shall have been completed to the satisfaction of County, except for minor corrective items, as distinguished from incomplete items. If Contractor fails to complete all minor corrective items within thirty (30) days after the date of the County's acceptance of completion, County shall withhold from the final payment one hundred fifty percent (150%) of an estimate of the amount sufficient to complete the corrective items, as determined by County, until the item(s) are completed.

21.1.4. At the end of the thirty-five (35) day period, if there are any items remaining to be corrected, County may elect to proceed as provided herein related to adjustments to Contract Price, and/or County's right to perform the Work of the Contractor.

21.2. Close-Out Procedures

21.2.1. Punch List

The Contractor shall notify the Architect when Contractor considers the Work complete. Upon notification, Architect will prepare a list of minor items to be completed or corrected ("Punch List"). The Contractor and/or its Subcontractors shall proceed promptly to complete and correct items on the Punch List. Failure to include an item on the Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

21.2.2. Close-Out Requirements

21.2.2.1. Utility Connections

Buildings shall be connected to water, gas, sewer, and electric services, complete and ready for use. Service connections shall be made and existing services reconnected.

21.2.2.2. Record Drawings

21.2.2.2.1. Contractor shall provide exact Record Drawings of the Work upon completion of the Project as indicated in the Specifications.

21.2.2.2.2. Contractor is liable and responsible for any and all inaccuracies in the Record Drawings, even if inaccuracies become evident at a future date.

21.2.2.2.3. Upon completion of the Work and as a condition precedent to approval of final payment, Contractor shall obtain the Inspector's approval of the corrected prints and employ a competent draftsman to transfer the Record Drawings information to the most current version of AutoCAD that is, at that time, currently utilized for plan check submission by either the County, the Architect, and print a complete set of transparent sepias. When completed, Contractor shall deliver corrected sepias and diskette/CD/other data storage device acceptable to County with AutoCAD file to the County.

21.2.2.3. Maintenance Manuals: Contractor shall prepare all operation and maintenance manuals and date as indicated in the Specifications.

21.3. Final Inspection

21.3.1. Contractor shall comply with Punch List procedures as provided herein, and maintain the presence of a Project Superintendent and Project Manager until the Punch List is complete to ensure proper and timely completion of the Punch List. Under no circumstances shall Contractor demobilize its forces prior to completion of the Punch List. Upon receipt of Contractor's written notice that all of the Punch List items have been fully completed and the Work is ready for final inspection and acceptance, Architect and Project Inspector will inspect the Work and shall submit to Contractor and County a final inspection report noting the Work, if any, required in order to complete in accordance with the Contract Documents. Absent unusual circumstances, this report shall consist of the Punch List items not yet satisfactorily completed.

21.3.2. Upon Contractor's completion of all items on the Punch List and any other uncompleted portions of the Work, the Contractor shall notify the County and Architect, who shall again inspect such Work. If the Architect finds the Work complete and acceptable under the Contract Documents, the Architect will notify Contractor, who shall then jointly submit to the Architect and the County its final Application for Payment.

21.3.3. Final Inspection Requirements

21.3.3.1. Before calling for final inspection, Contractor shall determine that the following have been performed:

21.3.3.1.1. The Work has been completed.

21.3.3.1.2. All life safety items are completed and in working order.

21.3.3.1.3. Mechanical and electrical Work are complete and tested, fixtures are in place, connected, and ready for tryout.

21.3.3.1.4. Electrical circuits scheduled in panels and disconnect switches labeled.

21.3.3.1.5. Painting and special finishes complete.

21.3.3.1.6. Doors complete with hardware, cleaned of protective film, relieved of sticking or binding, and in working order.

21.3.3.1.7. Tops and bottoms of doors sealed.

21.3.3.1.8. Floors waxed and polished as specified.

21.3.3.1.9. Broken glass replaced and glass cleaned.

21.3.3.1.10. Grounds cleared of Contractor's equipment, raked clean of debris, and trash removed from Site.

21.3.3.1.11. Work cleaned, free of stains, scratches, and other foreign matter, of damaged and broken material replaced.

21.3.3.1.12. Finished and decorative work shall have marks, dirt, and superfluous labels removed.

21.3.3.1.13. Final cleanup, as provided herein.

21.4. Costs of Multiple Inspections

More than two (2) requests of the County to make a final inspection shall be considered an additional service of County, Architect, Construction Manager, and/or Project Inspector, and all subsequent costs will be invoiced to Contractor and if funds are available, withheld from remaining payments.

21.5. Partial Occupancy or Use Prior to Completion

21.5.1. County's Rights to Occupancy

The County may occupy or use any completed or partially completed portion of the Work at any stage, and such occupancy shall not constitute the County's Final Acceptance of any part of the Work. Neither the County's Final Acceptance, the making of Final Payment, any provision in Contract Documents, nor the use or occupancy of the Work, in whole or in part, by County shall constitute acceptance of Work not in accordance with the Contract Documents nor relieve the Contractor or the Contractor's Performance Bond Surety from liability with respect to any warranties or responsibility for faulty or defective Work or materials, equipment and workmanship incorporated therein. The County and the Contractor shall agree in writing to the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents. Any dispute as to responsibilities shall be resolved pursuant to the Claims and Disputes provisions herein, with the added provision that during the dispute process, the County shall have the right to occupy or use any portion of the Work that it needs or desires to use.

21.5.2. Inspection Prior to Occupancy or Use

Immediately prior to partial occupancy or use, the County, the Contractor, and the Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

21.5.3. No Waiver

Unless otherwise agreed upon, partial or entire occupancy or use of a portion or portions of the Work shall not constitute beneficial occupancy or acceptance of the Work not complying with the requirements of the Contract Documents.

22. FINAL PAYMENT AND RETENTION

22.1. Final Payment

Upon receipt and approval of a valid and final Application for Payment, the Architect will issue a final Certificate of Payment. The County shall thereupon jointly inspect the Work and either accept the Work as complete or notify the Architect and the Contractor in writing of reasons why the Work is not complete. Upon acceptance of the Work of the Contractor as fully complete (that, absent unusual circumstances, will occur when the Punch List items have been satisfactorily completed), the County shall record a Notice of Completion with the County Recorder, and the Contractor shall, upon receipt of final payment from the County, pay the amount due Subcontractors.

22.2. Prerequisites for Final Payment The following conditions must be fulfilled prior to Final Payment:

22.2.1. A full release of all Stop Payment Notices served in connection with the Work shall be submitted by Contractor

22.2.2. A duly completed and executed conditional waiver and release upon final payment compliant with Civil Code section 8136, from the Contractor and each subcontractor of any tier and supplier to be paid from the final payment;

22.2.3. A duly completed and executed unconditional waiver and release upon progress payment compliant with Civil Code section 8134, from the Contractor and each subcontractor of any tier and supplier that was paid from the previous progress payments;

22.2.4. The Contractor shall have made all corrections to the Work that are required to remedy any defects therein, to obtain compliance with the Contract Documents or any requirements of applicable codes and ordinances, or to fulfill any of the orders or directions of County required under the Contract Documents.

22.2.5. Each Subcontractor shall have delivered to the Contractor all written guarantees, warranties, applications, and bonds required by the Contract Documents for its portion of the Work.

22.2.6. Contractor must have completed all requirements set forth under "Close-Out Procedures," including, without limitation, submission of an approved set of complete Record Drawings.

22.2.7. Architect shall have issued its written approval that final payment can be made.

22.2.8. The Contractor shall have delivered to the County all manuals and materials required by the Contract Documents.

22.2.9. The Contractor shall have completed final clean up as provided herein.

22.3. Retention

22.3.1. The retention, less any amounts disputed by the County or that the County has the right to withhold pursuant to provisions herein, shall be paid:

22.3.1.1. After approval of the County by the Architect's Certificate of Payment,

22.3.1.2. After the satisfaction of the conditions set forth herein, and

22.3.1.3. After thirty-five (35) days after the recording of the Notice of Completion by County.

22.3.2. No interest shall be paid on any retention, or on any amounts withheld due to a failure of the Contractor to perform, in accordance with the terms and conditions of the Contract Documents, except as provided to the contrary in any Escrow Agreement between the County and the Contractor pursuant to Public Contract Code section 22300.

22.4. Substitution of Securities The County will permit the substitution of securities in accordance with the provisions of Public Contract Code section 22300.

23. UNCOVERING OF WORK

If a portion of the Work is covered without Inspector or Architect approval or not in compliance with the Contract Documents, it must, if required in writing by the County, the Project Inspector, or the Architect, be uncovered for the Project Inspector's or the Architect's observation and be replaced at the Contractor's expense without change in the Contract Price or Contract Time.

24. NONCONFORMING WORK AND CORRECTION OF WORK

24.1. Nonconforming Work

24.1.1. Contractor shall promptly remove from Premises all Work identified by County as failing to conform to the Contract Documents whether incorporated or not. Contractor shall promptly replace and re-execute its own Work to comply with the Contract Documents without additional expense to the County and shall bear the expense of making good all work of other contractors destroyed or damaged by any removal or replacement pursuant hereto and/or any delays to the County or other Contractors caused thereby.

24.1.2. If Contractor does not remove Work that County has identified as failing to conform to the Contract Documents within a reasonable time, not to exceed **FORTY-EIGHT (48)** hours, County may remove it and may store any material at Contractor's expense. If Contractor does not pay expense(s) of that removal within ten (10) days' time thereafter, County may, upon ten (10) days' written notice, sell any material at auction or at private sale and shall deduct all costs and expenses incurred by the County and/or County may withhold those amounts from payment(s) to Contractor.

24.2. Correction of Work

24.2.1. Correction of Rejected Work

Pursuant to the notice provisions herein, the Contractor shall promptly correct the Work rejected by the County, the Architect, or the Project Inspector as failing to conform to the requirements of the Contract Documents, whether observed before or after Completion and whether or not fabricated, installed, or completed. The Contractor shall bear costs of correcting the rejected Work, including additional testing, inspections, and compensation for the Inspector's or the Architect's services and expenses made necessary thereby.

24.2.2. One-Year Warranty Corrections

If, within one (1) year after the date of Completion of the Work or a designated portion thereof, or after the date for commencement of warranties established hereunder, or by the terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the County to do so. This period of one (1) year shall be extended with respect to portions of the Work first performed after Completion by the period of time between Completion and the actual performance of the Work. This obligation hereunder shall survive acceptance of the Work under the Contract and termination of the Contract. The County shall give such notice promptly after discovery of the condition.

24.3. County's Right to Perform Work

24.3.1. If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of this contract, the County, after **FORTY-EIGHT (48)** hours written notice to the Contractor, may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

24.3.2. If it is found at any time, before or after completion of the Work, that Contractor has varied from the Drawings and/or Specifications, including, but not limited to, variation in material, quality, form, or finish, or in the amount or value of the materials and labor used, County may require at its option:

24.3.2.1. That all such improper Work be removed, remade or replaced, and all work disturbed by these changes be made good by Contractor at no additional cost to the County;

24.3.2.2. That the County deduct from any amount due Contractor the sum of money equivalent to the difference in value between the work performed and that called for by the Drawings and Specifications; or

24.3.2.3. That the County exercise any other remedy it may have at law or under the Contract Documents, including but not limited to the County hiring its own forces or another contractor to replace the Contractor's nonconforming Work, in which case the County shall either issue a deductive Change Order, a Construction Change Directive, or invoice the Contractor for the cost of that work. Contractor shall pay any invoices within thirty (30) days of receipt of same or County may withhold those amounts from payment(s) to Contractor.

25. TERMINATION AND SUSPENSION

25.1. County's Right to Terminate Contractor for Cause

25.1.1. Grounds for Termination The County, in its sole discretion, may terminate the Contract and/or terminate the Contractor's right to perform the work of the Contract based upon the following:

25.1.1.1. Contractor refuses or fails to execute the Work or any separable part thereof with sufficient diligence as will ensure its completion within the time specified or any extension thereof, or

25.1.1.2. Contractor fails to complete said Work within the time specified or any extension thereof, or

25.1.1.3. Contractor persistently fails or refused to perform Work or provide material of sufficient quality as to be in compliance with Contract Documents; or

25.1.1.4. Contractor files a petition for relief as a debtor, or a petition is filed against the Contractor without its consent, and the petition not dismissed within sixty (60) days; or

25.1.1.5. Contractor makes a general assignment for the benefit of its creditors, or a receiver is appointed on account of its insolvency; or

25.1.1.6. Contractor persistently or repeatedly refuses fails, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials to complete the Work in the time specified; or

25.1.1.7. Contractor fails to make prompt payment to Subcontractors, or for material, or for labor; or

25.1.1.8. Contractor persistently disregards laws, or ordinances, or instructions of County; or

25.1.1.9. Contractor fails to supply labor, including that of Subcontractors, that can work in harmony with all other elements of labor employed or to be employed on the Work; or

25.1.1.10. Contractor or its Subcontractor(s) is/are otherwise in breach, default, or in substantial violation of any provision of this Contract.

25.1.2. Notification of Termination

25.1.2.1. Upon the occurrence at County's sole determination of any of the above conditions, County may, without prejudice to any other right or remedy, serve written notice upon Contractor and its Surety of County's termination of this Contract and/or the Contractor's right to perform the work of the Contract. This notice will contain the reasons for termination. Unless, within three (3) days after the service of the notice, any and all condition(s) shall cease, and any and all violation(s) shall cease, or arrangement satisfactory to County for the correction of the condition(s) and/or violation(s) be made, this Contract shall cease and terminate. Upon Determination, Contractor shall not be entitled to receive any further payment until the entire Work is finished.

25.1.2.2. When any of the above reasons exist, the County may, without prejudice to any other rights or remedies of the County and after giving the Trade Contractor and the Trade Contractor's Surety written notice of three (3) days, terminate the Trade Contractor and/or this Contract and may, subject to any prior rights of the Surety:

25.1.2.2.1. Take possession of the Project and of all material, equipment, tools, and construction equipment and machinery thereon owned by the Trade Contractor;

25.1.2.2.2. Accept assignment of Subcontracts. Trade Contractor acknowledges and agrees that if the County (in its sole and absolute discretion) decides to takeover completion of the Project, the Trade Contractor agrees to immediately assign all subcontracts to the County which the County has chosen to accept;

25.1.2.2.3. Complete the Work by any reasonable method the County may deem expedient, including contracting with a replacement contractor or contractors; and,

25.1.2.2.4. Agree to accept a takeover and completion arrangement with Surety that is acceptable to the County.

25.1.2.3. If Surety fails to notify County or begin performance as indicated herein, County may take over the Work and execute the Work to completion by any method it may deem advisable at the expense of Contractor and/or its Surety. Contractor and/or its Surety shall be liable to County for any excess cost or other damages the County incurs thereby. Time is of the essence in this Contract. If the County takes over the Work as herein provided, County may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plan, and other property belonging to Contractor as may be on the Site of the Work, in bonded storage, or previously paid for.

25.1.3. Effect of Termination

25.1.3.1. Contractor shall, only if ordered to do so by the County, immediately remove from the Site all or any materials and personal property belonging to Contractor that have not been incorporated in the construction of the Work, or which are not in place in the Work. The County retains the right, but not the obligation, to keep and use any materials and personal property belonging to Contractor that have not been incorporated in the construction of the Work, or which are not in place in the Work. The Contractor and its Surety shall be liable upon the performance bond for all damages caused the County by reason of the Contractor's failure to complete the Contract.

25.1.3.2. In the event that the County shall perform any portion of, or the whole of the Work, pursuant to the provisions of the General Conditions, the County shall not be liable nor account to the Contractor in any way for the time within which, or the manner in which, the Work is performed by the County or for any changes the County may make in the Work or for the money expended by the County in satisfying claims and/or suits and/or other obligations in connection with the Work.

25.1.3.3. In the event that the Contract is terminated for any reason, no allowances or compensation will be granted for the loss of any anticipated profit by the Contractor or any impact or impairment of Contractor's bonding capacity.

25.1.3.4. If the expense to the County to finish the Work exceeds the unpaid Contract Price, Contractor and Surety shall pay difference to County within twenty-one (21) days of County's request.

25.1.3.5. The County shall have the right (but shall have no obligation) to assume and/or assign to a general contractor or construction manager or other third party who is qualified and has sufficient resources to complete the Work, the rights of the Contractor under its subcontracts with any or all Subcontractors. In the event of an assumption or assignment by the County, no Subcontractor shall have any claim against the County or third party for Work performed by Subcontractor or other matters arising prior to termination of the Contract. The County or any third party, as the case may be, shall be liable only for obligations to the Subcontractor arising after assumption or assignment. Should the County so elect, the Contractor shall

execute and deliver all documents and take all steps, including the legal assignment of its contractual rights, as the County may require, for the purpose of fully vesting in the County the rights and benefits of it Subcontractor under Subcontracts or other obligations or commitments. All payments due the Contractor hereunder shall be subject to a right of offset by the County for expenses and damages suffered by the County as a result of any default, acts, or omissions of the Contractor. Contractor must include this assignment provision in all of its contracts with its Subcontractors.

25.1.3.6. The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to County.

25.1.4. Emergency Termination of Public Contracts Act of 1949

25.1.4.1. This Contract is subject to termination as provided by sections 4410 and 4411 of the Government Code of the State of California, being a portion of the Emergency Termination of Public Contracts Act of 1949.

25.1.4.1.1. Section 4410 of the Government Code states:

In the event a national emergency occurs, and public work, being performed by contract, is stopped, directly or indirectly, because of the freezing or diversion of materials, equipment or labor, as the result of an order or a proclamation of the President of the United States, or of an order of any federal authority, and the circumstances or conditions are such that it is impracticable within a reasonable time to proceed with a substantial portion of the work, then the public agency and the contractor may, by written agreement, terminate said contract.

25.1.4.1.2. Section 4411 of the Government Code states:

Such an agreement shall include the terms and conditions of the termination of the contract and provision for the payment of compensation or money, if any, which either party shall pay to the other or any other person, under the facts and circumstances in the case.

25.1.4.2. Compensation to the Contractor shall be determined at the sole discretion of County on the basis of the reasonable value of the Work done, including preparatory work. As an exception to the foregoing and at the County's discretion, in the case of any fully completed separate item or portion of the Work for which there is a separate previously submitted unit price or item on the accepted schedule of values, that price shall control. The County, at its sole discretion, may adopt the Contract Price as the reasonable value of the work done or any portion thereof.

25.2. Termination of Contractor for Convenience

25.2.1. County in its sole discretion may terminate the Contract upon three (3) days written notice to the Contractor. Under a termination for convenience, the County retains the right to all the options available to the County if there is a termination for cause. In case of a termination for convenience, the Contractor shall have no claims against the County except:

25.2.1.1. The actual cost for labor, materials, and services performed that is unpaid and can be documented through timesheets, invoices, receipts, or otherwise, and

25.2.1.2. Five percent (5%) of the total cost of work performed as of the date of termination or five percent (5%) of the value of the Work yet to be performed, whichever is less. This five percent (5%) amount shall be full compensation for all Contractors' and its Subcontractor(s)' mobilization and/or demobilization costs and any anticipated loss profits resulting from termination of the Contractor for convenience.

25.3. Suspension of Work

25.3.1. County in its sole discretion may suspend, delay or interrupt the Work in whole or in part for such period of time as the County may determine upon three (3) days written notice to the Contractor.

25.3.1.1. An adjustment may be made for changes in the cost of performance of the Work caused by any such suspension, delay or interruption. No adjustment shall be made to the extent:

25.3.1.1.1. That performance is, was or would have been so suspended, delayed or interrupted by another cause for which Contractor is responsible; or

25.3.1.1.2. That an equitable adjustment is made or denied under another provision of the Contract; or

25.3.1.1.3. That the suspension of Work was the direct or indirect result of Contractor's failure to perform any of its obligations hereunder.

25.3.1.2. Any adjustments in cost of performance may have a fixed or percentage fee as provided in the section on Format for Proposed Change Order herein. This amount shall be full compensation for all Contractor's and its Subcontractor(s)' changes in the cost of performance of the Contract caused by any such suspension, delay or interruption.

26. CLAIMS AND DISPUTES

26.1. Performance During Dispute or Claim Process

Contractor shall continue to perform its Work under the Contract and shall not cause a delay of the Work during any dispute, claim, negotiation, mediation, or arbitration proceeding, except by written agreement by the County. It is the intent of this Section that differences between the parties arising under and by virtue of this Contract be brought to the attention of the County Project Manager and/or Construction Manager at the earliest possible time in order that such matters be promptly settled if possible, or other appropriate action or investigation may be promptly undertaken.

26.2. Definition of Dispute

26.2.1. The term "Dispute" means a separate demand by the Contractor for:

26.2.1.1. A time extension; including without limitation, for relief from damages or penalties for delay assessed by the County under the contract.

26.2.1.2. Payment of money or damages arising from Work done by or on behalf of the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or Contractor is not otherwise entitled to; or

26.2.1.3. An amount of payment disputed by the County.

26.3. Dispute Presentation

26.3.1. If Contractor intends to apply for an increase in the Contract Price or Contract Time for any reason including, without limitation, the acts of County or its agents, Contractor shall, within ten (10) days after the event giving rise to the Dispute, give notice of the Dispute in writing and submit to the County a written statement of the damage sustained or time requested. On or before twenty (20) days after Contractor's written Notice of Dispute, Contractor shall file with the County an itemized statement of the details and amounts of its Dispute for any increase in the Contract Price or Contract Time. Otherwise, Contractor shall have waived and relinquished its dispute against the County and Contractor's claims for compensation or an extension of time shall be forfeited and invalidated. Contractor shall not be entitled to consideration for payment or time on account.

26.3.2. The Notice of Dispute shall identify:

26.3.2.1. The issues, events, conditions, circumstances and/or causes giving rise to the dispute;

26.3.2.2. The pertinent dates and/or durations and actual and/or anticipated effects on the Contract Price, Contract Schedule milestones and/or Contract Time adjustments; and

26.3.2.3. The line-item costs for labor, material, and/or equipment, if applicable.

26.3.3. The Notice of Dispute shall include the following certification by the Contractor:

26.3.3.1. The undersigned Contractor certifies under penalty of perjury that the attached dispute is made in good faith; that the supporting data is accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the adjustment for which Contractor believes the County is liable; and that I am duly authorized to certify the dispute on behalf of the Contractor.

26.3.3.2. Furthermore, Contractor understands that the value of the attached dispute expressly includes any and all of the Contractor's costs and expenses, direct and indirect, resulting from the Work performed on the Project, additional time required on the Project and/or resulting from delay to the Project. Any costs, expenses, damages, or time extensions not included are deemed waived.

26.3.4. If a Dispute, or any portion thereof, remains unresolved upon satisfaction of all applicable Dispute Resolution requirements, the Contractor shall comply with all claim resolution requirements as provided in Public Contract Code section 20104.

26.3.5. Contractor shall bind its Subcontractors to the provisions of this section and will hold the County harmless against disputes by Subcontractors.

26.4. Dispute Resolution

26.4.1. Contractor shall file with the County the Notice of Dispute, including the documents necessary to substantiate it, within ten (10) days of the event giving rise to the dispute or before the day of submitting the application for final payment (whichever occurs first).

26.4.2. County shall respond in writing within forty-five (45) days of receipt of the Dispute or may request in writing within thirty (30) days of receipt of the Dispute any additional documentation supporting the Dispute or relating to defenses or claims County may have against the Contractor.

26.4.2.1. If additional information is required, it shall be requested and provided by mutual agreement of the parties.

26.4.2.2. County's written response to the documented Dispute shall be submitted to the Contractor within fifteen (15) days after receipt of the further documentation or within a period of time no greater than that taken by the Contractor to produce the additional information, whichever is greater.

26.4.3. If Contractor disputes the County's written response, Contractor may file a claim pursuant to the Claim Resolution requirements provided herein.

26.5. Definition of Claim

26.5.1. The term "Claim" means a dispute that remains unresolved at the conclusion of the Dispute Resolution requirements as provided herein.

26.6. Claim Presentations

26.6.1. Contractor must timely submit the Notice of Claim and all reasonable documentation necessary to substantiate any Claim, which shall be sent by registered mail or certified mail return receipt requested. Otherwise, Contractor shall have waived and relinquished its Claim against the County and Contractor's Claims for compensation or an extension of time shall be forfeited and invalidated, and Contractor shall not be entitled to consideration for payment or time on account of the instant matter Any statute that might otherwise govern the presentation of an unresolved Dispute, including but not limited to Government Code section 900 et seq. and Public Contract Code section 20104 et seq. shall be tolled during the course of construction on the Project. Timely shall be within ten (10) days of the event giving rise to the claim or before the day of submitting the application for final payment (whichever occurs first).

26.6.1.1. All Claims shall include the following certification by the Contractor:

26.6.1.1.1. The undersigned Contractor certifies under penalty of perjury that the attached Claim is made in good faith; that the supporting data is accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the adjustment for which Contractor believes the County is liable; and that I am duly authorized to certify the claim on behalf of the Contractor.

26.6.1.1.2. Furthermore, Contractor understands that the value of the attached claim expressly includes any and all of the Contractor's costs and expenses, direct and indirect, resulting from the Work performed on the Project, additional time required on the Project and/or resulting from delay to the Project. Any costs, expenses, damages, or time extensions not included are deemed waived.

26.6.2. The attention of the Contractor is drawn to Government Code section 12650, et seq. regarding penalties for false claims.

26.6.3. Not Applicable.

26.6.4. The Contractor shall bind all its Subcontractors to the provisions of this section and will hold the County harmless against claims by Subcontractors.

26.7. Claim Resolution

26.7.1. In the event of a disagreement between the parties after the conclusion of the Dispute Resolution requirements pursuant to 26.3 herein, the parties shall follow the Claims Procedures set forth herein.

26.7.2. Claims Procedure

26.7.2.1. Upon receipt of a Claim and the supporting documentation, the County shall conduct a reasonable review of the Claim and within forty-five (45) days, or an extended period as may be set by mutual agreement of the County and Contractor, provide the Contractor with a written statement identifying what portion of the Claim is still disputed and what portion is undisputed.

26.7.2.2. Notwithstanding the time period set forth in .1 above, if the County needs approval from the Board of Supervisors to provide the Contractor with a written statement identifying the disputed portion and the undisputed portion of the Claim, and the Board of Supervisors does not meet within the forty-five (45) days or within the mutually agreed to extension of time following receipt of the Claim, the County shall have up to three (3) days following the next duly publicly noticed meeting of the Board of Supervisors after the forty-five (45) day period, or extension, expires to provide Contractor a written statement identifying the disputed portion and the undisputed portion of the Claim.

26.7.2.3. Any payment due on the undisputed portion of the Claim under this section shall be processed and made within sixty (60) days after the County issues its written statement. If the County fails to issue a written statement, the Claim shall be deemed rejected in its entirety. A Claim that is denied by reason of the County's failure to have responded to the Claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the Claim or the responsibility or qualifications of the Contractor.

26.7.2.4. If the Contractor disputes the County's written response, or if the County fails to respond within the time prescribed, the Contractor may demand in writing, sent by registered mail or certified mail return receipt requested, an informal meet and confer conference for settlement of the portion of the Claim in dispute. Upon receipt of the demand, the County shall schedule a meet and confer conference within thirty (30) days.

26.7.2.5. Within ten (10) business days following the conclusion of the meet and confer conference, if the Claim or any portion thereof remains in dispute, the County shall provide the Contractor a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion shall be processed and made within sixty (60) days after the County issues its written statement. Any disputed portion of the Claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with the County and Contractor sharing the associated costs equally. The County and Contractor shall mutually agree to a mediator within ten (10) business days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by tis respective mediator in connection with the selection of the neutral mediator.

26.7.2.6. For purposes of this section, mediation includes any nonbinding process, including but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute with resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

26.7.2.7. If mediation is unsuccessful to resolve all issues, the parts of the claim remaining in dispute shall be subject to applicable procedures outside of this section and the requirements of Public Contract Code section 9204.

26.7.2.8. Following the mediation, if the claim or any portion of it remains in dispute, the Contractor may file a claim as provided in Chapter 1 (commencing with section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.

26.7.2.9. If a subcontractor or a lower tier subcontractor has a Claim, the contractor may present to the County a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the Contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the Claim be presented to the County shall furnish reasonable documentation as set forth in 26.3.2 to support the Claim. Within forty-five (45) days of receipt of this written request, the Contractor shall notify the subcontractor in writing as to whether the Contractor presented the Claim to the County, and if the Contractor did not present the Claim, provide the subcontractor with a statement of the reasons for not having done so.

26.8. Dispute and Claim Resolution Non-Applicability

26.8.1. The procedures for dispute and claim resolutions set forth in this Article shall not apply to the following:

26.8.1.1. Personal injury, wrongful death or property damage claims;

26.8.1.2. Latent defect or breach of warranty or guarantee to repair;

26.8.1.3. Stop payment notices;

26.8.1.4. County's rights set forth in the Article on Suspension and Termination;

26.8.1.5. County rights and obligations as a public entity set forth in applicable statutes; provided, however, that penalties imposed against a public entity by statutes, including, but not limited to, Public Contract Code sections 20104.50 and 7107, shall be subject to the Dispute and Claim Resolution requirements provided in this Article.

26.9. Contractor's costs incurred in seeking relief under this Article are not recoverable from the County.

27. STATE LABOR, WAGE & HOUR, APPRENTICE, AND RELATED PROVISIONS

27.1. Monitoring and Enforcement by Labor Commissioner

27.1.1. Monitoring and enforcement of the prevailing wage laws and related requirements will be performed by the Labor Commissioner/ Department of Labor Standards Enforcement (DLSE). The Contractor and all subcontractors shall be required to furnish, at least monthly, certified payroll records directly to the Labor Commissioner in accordance with Labor Code section 1771.4. All payroll records shall be furnished in a format required by the Labor Commissioner. The Contractor and all subcontractors must sign up for, and utilize, the Labor Commissioner's electronic certified payroll records submission system. The County will have direct and immediate access to all CPRs for the Project that are submitted through the Labor Commissioner's system. The County can use this information for any appropriate purpose, including monitoring compliance, identifying suspected violations, and responding to Public Records Act requests. Additionally, the County may, at the sole discretion of the County, require the Contractor to submit separate CPRs to the County in intervals required by the County's labor compliance program.

27.1.2. The Labor Commissioner/ DLSE may conduct various compliance monitoring and enforcement activities including, but not limited to, confirming the accuracy of payroll records, conducting worker interviews, conducting audits, requiring submission of itemized statements prepared in accordance with Labor Code section 226, and conducting random in-person inspections of the Project site ("On-Site Visits"). On-Site Visits may include inspections of records, inspections of the Work site and observation of work activities, interviews of workers and others involved with the Project, and any other activities deemed necessary by the Labor Commissioner/DLSE to ensure compliance with prevailing wage requirements. The Labor Commissioner/DLSE shall have free access to any construction site or other place of labor and may obtain any information or statistics pertaining to the lawful duties of the Labor Commissioner/DLSE.

27.1.3. Any lawful activities conducted or any requests made by the Labor Commissioner/DLSE shall not be the basis for any delays, claims, costs, damages or liability of any kind against the County by the Contractor. Contractor and all subcontractors shall cooperate and comply with any lawful requests by the Labor Commissioner/ DLSE. The failure of the Labor Commissioner, DLSE, or any other entity related to the Department of Industrial Relations to comply with any requirement imposed by the California Code of Regulations, Title 8, Chapter 8 shall not of itself constitute a defense to the failure to pay prevailing wages or to comply with any other obligation imposed by Division 2, Part 7, Chapter 1 of the Labor Code.

27.1.4. Prior to commencing any Work on the Project, the Contractor shall post the required notice/poster required under the California Code of Regulations and Labor Code section 1771.4 in both English and Spanish at a conspicuous, weatherproof area at the Project site. The required notice/poster is available on the Labor Commissioner's website.

27.2. Wage Rates, Travel, and Subsistence

27.2.1. Pursuant to the provisions of article 2 (commencing at section 1770), chapter 1, part 7, division 2, of the Labor Code of California, the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this public work is to be performed for each craft, classification, or type of worker needed to execute this Contract are on file at the County's principal office and copies will be made available to any interested party on request. Contractor shall obtain and post a copy of these wage rates at the job site.

27.2.2. Holiday and overtime work, when permitted by law, shall be paid for at a rate of at least one and one-half times the above specified rate of per diem wages, unless otherwise specified. The holidays upon which those rates shall be paid need not be specified by the County, but shall be all holidays recognized in the applicable collective bargaining agreement. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code.

27.2.3. Contractor shall pay and shall cause to be paid each worker engaged in Work on the Project not less than the general prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations ("DIR") ("Director"), regardless of any contractual relationship which may be alleged to exist between Contractor or any Subcontractor and such workers.

27.2.4. If during the period this bid is required to remain open, the Director determines that there has been a change in any prevailing rate of per diem wages in the locality in which the Work under the Contract is to be performed, such change shall not alter the wage rates in the Notice to Bidders or the Contract subsequently awarded.

27.2.5. Pursuant to Labor Code section 1775, Contractor shall, as a penalty to County, forfeit the statutory amount (believed by the County to be currently two hundred dollars ($200)) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates, determined by the County and/or the Director, for the work or craft in which that worker is employed for any public work done under Contract by Contractor or by any Subcontractor under it. The difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate, shall be paid to each worker by Contractor.

27.2.6. Any worker employed to perform Work on the Project, which Work is not covered by any classification listed in the general prevailing wage rate of per diem wages determined by the Director, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to Work to be performed by him, and such minimum wage rate shall be retroactive to time of initial employment of such person in such classification.

27.2.7. Pursuant to Labor Code section 1773.1, per diem wages are deemed to include employer payments for health and welfare, pension, vacation, travel time, subsistence pay, and apprenticeship or other training programs authorized by Labor Code section 3093, and similar purposes.

27.2.8. Contractor shall post at appropriate conspicuous points on the Site of Project, a schedule showing all determined minimum wage rates and all authorized deductions, if any, from unpaid wages actually earned. In addition, Contractor shall post a sign-in log for all workers and visitors to the Site, a list of all subcontractors of any tier on the Site, and the required Equal Employment Opportunity poster(s).

27.3. Hours of Work

27.3.1. As provided in article 3 (commencing at section 1810), chapter 1, part 7, division 2, of the Labor Code, eight (8) hours of labor shall constitute a legal days work. The time of service of any worker employed at any time by Contractor or by any Subcontractor on any subcontract under this Contract upon the Work or upon any part of the Work contemplated by this Contract shall be limited and restricted by Contractor to eight (8) hours per day, and forty (40) hours during any one week, except as hereinafter provided. Notwithstanding the provisions hereinabove set forth, Work performed by employees of Contractor in excess of eight (8) hours per day and forty (40) hours during any one week, shall be permitted upon this public work upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half times the basic rate of pay.

27.3.2. Contractor shall keep and shall cause each Subcontractor to keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by Contractor in connection with the Work or any part of the Work contemplated by this Contract. The record shall be kept open at all reasonable hours to the inspection of County and to the Division of Labor Standards Enforcement of the DIR.

27.3.3. Pursuant to Labor Code section 1813, Contractor shall as a penalty to the County forfeit the statutory amount (believed by the County to be currently twenty-five dollars ($25)) for each worker employed in the execution of this Contract by Contractor or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of article 3 (commencing at section 1810), chapter 1, part 7, division 2, of the Labor Code.

27.3.4. Any Work necessary to be performed after regular working hours, or on Sundays or other holidays shall be performed without additional expense to the County.

27.4. Payroll Records

27.4.1. Contractor shall prepare and provide to the County and shall cause each Subcontractor performing any portion of the Work under this Contract to prepare and provide to the County an accurate and complete certified payroll record ("CPR"), showing the name, address, social security number, work classification, straight time, and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work. All CPRs as specified in Labor

Code section 1776 of the Contractor and all subcontractors of any tier shall be certified and furnished directly to the Labor Commissioner in accordance with Labor Code section 1771.4(a)(3) on a monthly basis (or more frequently if required by the County or the Labor Commissioner) and in a format prescribed by the Labor Commissioner. CPRs as specified in Labor Code section 1776 shall be certified and submitted to the County with each application for payment.

27.4.2. All CPRs shall be available for inspection at all reasonable hours at the principal office of Contractor on the following basis:

27.4.2.1. A certified copy of an employee's CPR shall be made available for inspection or furnished to the employee or his/her authorized representative on request.

27.4.2.2. CPRs shall be made available for inspection or furnished upon request to a representative of County, Division of Labor Standards Enforcement, Division of Apprenticeship Standards, and/or the Department of Industrial Relations.

27.4.2.3. CPRs shall be made available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through the County, Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested CPRs have not been provided pursuant to the provisions herein, the requesting party shall, prior to being provided the records reimburse the costs of preparation by Contractor, Subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of Contractor.

27.4.3. The form of certification for the CPRs shall be as follows:

I, (Name-Print), the undersigned, am the (Position in business) with the authority to act for and on behalf of (Name of business and/or Contractor), certify under penalty of perjury that the records or copies thereof submitted and consisting of (Description, number of pages) are the originals or true, full, and correct copies of the originals which depict the payroll record(s) of actual disbursements by way of cash, check, or whatever form to the individual or individual named, and (b) we have complied with the requirements of sections 1771, 1811, and 1815 for any work performed by our employees on the Project.

Date: _____ Signature: _____

(Section 16401 of the California Code of Regulations)

27.4.4. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by County, Division of Apprenticeship Standards, or Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of Contractor awarded Contract or performing Contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (Section 175a of Title 29 of the United States Code) shall be marked or obliterated only to prevent disclosure of an individual's name and social security number. Notwithstanding any other provision of law, agencies that are included in the Joint Enforcement Strike Force on the Underground Economy established pursuant to Section 329 of the Unemployment Insurance Code and other law enforcement agencies investigating violations of law shall, upon request, be provided non-redacted copies of certified payroll records.

27.4.5. Contractor shall inform County of the location of the records enumerated hereunder, including the street address, city, and county, and shall, within five (5) working days, provide a notice of change of location and address.

27.4.6. In the event of noncompliance with the requirements of this section, Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects Contractor must comply with this section. Should noncompliance still be evident after the ten (10) day period, Contractor shall, as a penalty to County, forfeit one hundred dollars ($100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of Division of Apprenticeship Standards or Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

27.5. [RESERVED]

27.6. Apprentices

27.6.1. Contractor acknowledges and agrees that, if this Contract involves a dollar amount greater than or a number of working days greater than that specified in Labor Code section 1777.5, then this Contract is governed by the provisions of Labor Code Section 1777.5. It shall be the responsibility of Contractor to ensure compliance with this Article and with Labor Code section 1777.5 for all apprenticeship occupations.

27.6.2. Apprentices of any crafts or trades may be employed and, when required by Labor Code section 1777.5, shall be employed provided they are properly registered in full compliance with the provisions of the Labor Code.

27.6.3. Every such apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which he/she is employed, and shall be employed only at the work of the craft or trade to which she/he is registered.

27.6.4. Only apprentices, as defined in section 3077 of the Labor Code, who are in training under apprenticeship standards and written apprentice agreements under chapter 4 (commencing at section 3070), division 3, of the Labor Code, are eligible to be employed. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which he/she is training.

27.6.5. Pursuant to Labor Code section 1777.5, if that section applies to this Contract as indicated above, Contractor and any Subcontractors employing workers in any apprenticeable craft or trade in performing any Work under this Contract shall apply to the applicable joint apprenticeship committee for a certificate approving the Contractor or Subcontractor under the applicable apprenticeship standards and fixing the ratio of apprentices to journeymen employed in performing the Work.

27.6.6. Pursuant to Labor Code section 1777.5, if that section applies to this Contract as indicated above, Contractor and any Subcontractor may be required to make contributions to the apprenticeship program.

27.6.7. If Contractor or Subcontractor willfully fails to comply with Labor Code section 1777.5, then, upon a determination of noncompliance by the Administrator of Apprenticeship, it shall:

27.6.7.1. Be denied the right to bid on any subsequent project for one (1) year from the date of such determination;

27.6.7.2. Forfeit as a penalty to County the full amount as stated in Labor Code section 1777.7. Interpretation and enforcement of these provisions shall be in accordance with the rules and procedures of the California Apprenticeship Council and under the authority of the Chief of the Division of Apprenticeship Standards.

27.6.8. Contractor and all Subcontractors shall comply with Labor Code section 1777.6, which section forbids certain discriminatory practices in the employment of apprentices.

27.6.9. Contractor shall become fully acquainted with the law regarding apprentices prior to commencement of the Work. Special attention is directed to sections 1777.5, 1777.6, and 1777.7 of the Labor Code, and title 8, California Code of Regulations, section 200 et seq. Questions may be directed to the State Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, California 94102.

27.7. Non-Discrimination

27.7.1. Contractor herein agrees not to discriminate in its recruiting, hiring, promotion, demotion, or termination practices on the basis of race, religious creed, national origin, ancestry, sex, age, or physical handicap in the performance of this Contract and to comply with the provisions of the California Fair Employment and Housing Act as set forth in part 2.8 of division 3 of the California Government Code, commencing at section 12900; the Federal Civil Rights Act of 1964, as set forth in Public Law 88-352, and all amendments thereto; Executive Order 11246, and all administrative rules and regulations found to be applicable to Contractor and Subcontractor.

27.7.2. Special requirements for Federally Assisted Construction Contracts: (Applicable if Federal Funds apply) During the performance of this Contract, Contractor agrees to incorporate in all subcontracts the provisions set forth in Chapter 60-1.4(b) of Title 41 published in Volume 33 No. 104 of the Federal Register dated May 28, 1968.

27.8. Labor First Aid

Contractor shall maintain emergency first aid treatment for Contractor's workers on the Project which complies with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 et seq.) and the California Occupational Safety and Health Act of 1973 (8 Cal. Code of Regs., §1 et seq.).

28. [RESERVED]

29. MISCELLANEOUS

29.1. Assignment of Antitrust Actions

29.1.1. Section 7103.5(b) of the Public Contract Code states:

> In entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commending with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

29.1.2. Section 4552 of the Government Code states:

> In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

29.1.3. Section 4553 of the Government Code states:

If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

29.1.4. Section 4554 of the Government Code states:

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action.

29.1.5. Under this Article, "public purchasing body" is County and "bidder" is Contractor.

29.2. Excise Taxes

If, under Federal Excise Tax Law, any transaction hereunder constitutes a sale on which a Federal Excise Tax is imposed and the sale is exempt from such Federal Excise Tax because it is a sale to a State or Local Government for its exclusive use, County, upon request, will execute documents necessary to show (1) that County is a political subdivision of the State for the purposes of such exemption, and (2) that the sale is for the exclusive use of County. No Federal Excise Tax for such materials shall be included in any Contract Price.

29.3. Taxes

Contract Price is to include any and all applicable sales taxes or other taxes that may be due in accordance with section 7051 of the Revenue and Taxation Code; Regulation 1521 of the State Board of Equalization or any other tax code that may be applicable.

29.4. Shipments

All shipments must be F.O.B. destination to Site or sites, as indicated in the Contract Documents. There must be no charge for containers, packing, unpacking, drayage, or insurance. The total Contract Price shall be all inclusive (including sales tax) and no additional costs of any type will be considered.

29.5. Compliance with Government Reporting Requirements

If this Contract is subject to federal or other governmental reporting requirements because of federal or other governmental financing in whole or in part for the Project of which it is part, or for any other reason, Contactor shall comply with those reporting requirements at the request of the County at no additional cost.

END OF DOCUMENT

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DOCUMENT 00 80 00

SUPPLEMENTAL CONDITIONS

These Supplemental Conditions modify the General Conditions and form a part of the Contract Documents for the work generally described. Where portions of the General Conditions are modified and or deleted by these Supplemental Conditions, the unaltered portions of the General Conditions shall remain in effect

1. **Article 1 – Contract Terms and Definitions**

    a. Article 1.1.12 – Construction Change Directive

        i. The word "Construction Change Directive" shall be synonymous with the words, "Bulletin", "Instruction Bulletin", "Field Directive, etc. Such words shall be the formal document issued by the Architect / County / Construction Manager, giving the Contractor authorization to proceed with changes in the scope of work post bid / contract award.

    b. Article 1.1.18 – Contractor

        i. The word "Contractor" shall also be synonymous with the words, "Prime Contractor" "Trade Contractor", "Category Contractor", "Bid Contractor", Bid Category Contractor" or any variation of the same. These terms are used interchangeably in the course of the contract documents."

2. **Article 2 – Shop Drawings, Product Data, and Samples**

    a. Article 2.1 - Submittals defined

        i. All submittals unless noted otherwise in Division 01, shall be submitted for architect review no later than ten (10) days from the date of the Notice to Proceed.

3. **Article 4 – Architect**

    a. Article 4.4

        i. All communication to be submitted to the Program and/or the Construction Manager.

4. **Article 11 – Contractor's Submittals and Schedules**

    a. Article 11.1.1.2 – Preliminary Schedule of Values
    The schedule of values shall follow the following format:

        i. A single line item for each of the following:

            - Bond Premium (not to exceed the bond premium amount)
            - General Conditions (not to exceed 8% of the subtotal of subcontractors)
            - Alternates (each as it applies)
            - Mobilization (not to exceed 2% of contract total)
            - Submittals (all submittals on one line item, not to exceed 2% of contract total)

- Allowance
- SWPPP
- Punch-list (Including all subcontractors, 5% of the contract's total)
- Closeout (Including all subcontractors, 5% of the contract's total)

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SECTION 01 10 00

SUMMARY OF WORK

PART 1 – GENERAL

1.1 PROJECT DESCRIPTION

A. Project consists of Work of Project will be defined in the Contract Documents and consist of an 8,600 square foot Cardiac Catheterization Lab Suite comprised of two (2) catheterization labs with their own dedicated control rooms and imaging equipment rooms. Support spaces for the catheterization lab suite will include Clean and Soiled Utility Rooms, Storage, Medication Preparation, Pre/Post Op beds, Nurse station and Staff and Administration areas. An additional 720 square feet will be renovated to enlarge the existing hyperbaric room and provide one (1) additional hyperbaric therapy chamber. The total project square footage will be 9,320 square feet. Construction consists of, but not limited to, demo, site utilities, site concrete, fences and gates, cast-in-place concrete, reinforcing steel, misc. metal, rough carpentry, casework, finish carpentry, insulation, roofing, doors/frames/hardware, windows, drywall, acoustical treatments, tile, floor covering, painting, miscellaneous specialties, fire sprinklers, plumbing, HVAC, electrical, and low voltage systems.

B. The Scope of Work and all related General Notes, Construction Notes on the drawings and specifications for the project has been included as a part of these Contract Documents. Crews must be staffed as necessary to meet the bid schedule and will be finalized in the Bid Category Contractor's submitted and approved project schedule.

1.2 CONTRACT METHOD

This project is a construction management / multi-prime delivery. Contract for this bid will be awarded to the lowest responsive and responsible lump sum bidder for the Cardiac Catheterization Laboratory.

1.3 DESCRIPTION OF WORK

The scope of work for this contract **includes**, but is not limited to, those areas described within this section, and all sections listed within the Technical Specification. The Work to be performed by the Bid Category Contractor is outlined in this Section and includes all Work shown on the Drawings, Construction Notes, General Notes, Technical Specifications, and Scope of Work Summaries.

A. The Bid Category Contractor's shall provide and maintain safe access for all pedestrian and vehicle traffic during the course of the project.

B. The project is located in the City Limits adjacent to residential apartments. Compliance with the Noise Ordinance and allowable working hours will be enforced.

C. The Bid Category Contractors are responsible to maintain, repair, and/or replace the tree protection for the trees scheduled to remain.

D. The Bid Category Contractor's is responsible for all traffic, pedestrian, construction, and regulatory signage as requires or necessary to meet all governing regulatory requirements.

The Bid Category Contractor's shall maintain an adequate labor work force, as required on a daily basis, to properly clean up all the debris associated with this The Bid Category Contractor's work. All rubbish/debris resulting from this The Bid Category Contractor's operation will be deposited directly into "dumpster type" rubbish containers. Removal and disposal of full "dumpster type" rubbish containers will be the responsibility of the Bid Category Contractor's, and receipts provided for the Project's waste diversion program. All efforts shall be made to recycle those items that can be. All recycled items must be properly documented and a receipt provided to the County Representative for their waste diversion program.

E. The Bid Drawings and Specifications indicate the scope of the Work in terms of the design concept, the dimensions of the Work, and the structural elements of construction. The Bid Drawings and Specifications do not necessarily indicate or describe all Work required for the full performance and completion of the Work. The Bid Category Contractor's shall be solely responsible for the inclusion of adequate amounts in the bid price to include all items indicated, described, implied, or necessary in order to produce a completed Project. Decisions of the County's Representative as to the items of Work included within the scope of these Drawings and Contract Documents shall be final and binding on the Bid Category Contractor's.

F. The Work to be performed under this Contract shall include the furnishing of all tools, equipment, materials, hardware, accessories, supplies, and fabricated or manufactured articles for the Work, including all guarantees and warranties. The Work shall also include the furnishing of all packaging, transportation, trucking, fuel, freight, delivery and services; obtaining of permits, licenses, insurance and bonds, payment of all applicable taxes, and all storage and demurrage costs. The Work also includes furnishing of all project administration, supervision, surveying and layout, engineering, detailing, shop drawings and submittals; as well as the provision of scaffolding, temporary bracing and shoring, temporary stairs, ladders and other access aids, all Cal/OSHA-required safety measures, and all other operations and miscellaneous services and appurtenances required for the fulfillment of the Contract, and completion of the indicated, described, or implied scope of Work in strict accordance with the Contract Documents, as well as their intent in describing the scope of a completed Project.

1.4 WORK INCLUDED IN THE SCOPE OF THE CONTRACT DOCUMENTS

A. All Work under this Contract shall be performed in strict accordance with the Technical Specification listed in the Table of Contents, as these Sections relate specifically to the Work of the Bid Category Contractor's. All The Bid Category Contractor's shall carry out any related Work, which may be described in all Sections of the Specifications relative to its Work, and shall coordinate its Work with the Work of other trades in accordance with all Sections of the Technical Specifications, and all other requirements of the Contract Documents.

B. Unless otherwise specified, the County will provide and pay for all Independent-testing labs services required for this project during normal working hours and days as defined in the Division 0 and 1 of the project specifications. The costs of any and all special inspections, re-inspections and/or Overtime charges billed as additional costs to the County due to the shift in the normal working hours or days to meet a modified schedule, re-inspection caused from inspection failure shall be paid by the issuance of a deductive change order from this contract.

C. Any and all off-site material and/or product fabrication testing and/or inspection required by the contract documents, regulatory agencies, State or Local codes and regulations in excess of a 50 mile radius from the County site, related to this contract, shall be paid for by The Bid Category Contractor's. The Bid Category Contractor's shall assume the responsibility to pay for these additional costs by the issuance of a deductive change order from this contract.

D. The Bid Category Contractor's shall provide and/or furnish the following general provisions:

1. By submitting this Bid, The Bid Category Contractor's confirms that they have familiarized themselves with the conditions of the site and that they have made their own estimates regarding the facilities and the difficulties, which may arise in connection with the execution of the Work.

2. The Bid Category Contractor's shall provide sufficient equipment, manpower

and/or overtime, at no increase to Contract Price, to maintain the rate of installation required to accommodate the Project Construction Schedule.

3. The Bid Category Contractor's shall provide and/or furnish the following general provisions:

   a. The Bid Category Contractor's shall provide a **detailed Project Approach** for review by the County Representative prior to the first (1st) progress payment.
      i. This shall be a written statement and shall describe how the trade The Bid Category Contractor's plans on approaching this project to ensure a safe and successful completion. The approach shall include but not limited to…
         a) Their approach to safety (Refer to Section 01 44 40 – Site Safety) each day, as well as instill safety in their employees.
         b) Their approach to timely and properly communicate to the construction manager, staging, hoisting, the timely ordering of materials, delivery, and stocking.
         c) Their approach to ensure proper manpower to complete activities on-time.
         d) Their approach to timely review of respective scope, coordination with other trades, layout, potential issues, etc. as not to delay yourself or other trades.
         e) How often will a project manager and/or general superintendent visit the project to ensure contract compliance.

   b. The Bid Category Contractor's shall modify, adjust, and perform scheduled work when and as directed by County Representative.
   c. The project is an alcohol-free and drug-free project. Any persons found using alcohol or drugs on the site or who are suspected of being under the influence of alcohol or drugs will be immediately removed from the jobsite.

4. Prior to any release of retainage, The Bid Category Contractor's shall perform specified County personnel instruction, execute all guarantee/warranty forms, and all other Contract Document specified close-out items, which shall require approval by the County's Representative, the County and the Engineer, or those parties designated as their representative agents.

5. The Bid Category Contractor's shall perform the Work in a safe and proper manner and he will properly guard its Work and areas affected by its Work to prevent any person or persons from being injured by it or by the condition of the site or project, and he will in all respects comply with any and all provisions of the law and ordinances referring to such Work, and of local ordinances relating to the maintenance of danger signals, barriers, lights and similar safeguards respecting falling materials and in and about all of the Work and adjacent areas where the same are required.

   In the event of accidents or incidents of any kind, The Bid Category Contractor's shall furnish County and/or County's Representative with copies of all accident or incident reports. Reports shall be sent without delay and at the same time they are forwarded to any other parties. The Bid Category Contractor's shall notify County's Representative immediately of any accident and/or incident. The Bid Category Contractor's shall comply with all OSHA related requirements.

   If, in the judgment of the County's Representative, The Bid Category Contractor's fails to comply with such orders or directions within **48 hours** (including

weekends and holidays) of sending of a written safety notice(s) to the Bid Category Contractor's, the County may; either terminate this contract (with the same rights as set forth in the general conditions) or stop the Work of the Bid Category Contractor's until the Bid Category Contractor's complies with the aforesaid orders or directions (The Bid Category Contractor's remaining liable for performance under this contract and for all damages arising out of such Work stoppage) or the County's Representative may take all such action as may be necessary to make the Bid Category Contractor's Work comply with such orders and directions and charge the Bid Category Contractor's for all costs incurred. Failure of the County's Representative or any such safety engineer or inspector to issue any such orders of directions to the Bid Category Contractor's shall not relieve the Bid Category Contractor's from any of its obligations under this contract.

1.5 COMMENCEMENT AND COMPLETION OF THE WORK

A. In accordance with the provisions of the Contract Agreement, the Bid Category Contractor's shall begin the Work on the date specified in the written Notice to Proceed from the County, and shall complete all of the Work included in the Contract within the time specified in said Notice. Time stated for completion shall include all closeout requirements, completion of final punch list, and final clean up.

B. The Bid amount requests The Bid Category Contractor's to submit its most competitive Bid Price for the Work on the basis of the Bid Document.

1.6 ORDER OF THE WORK

The Work shall be carried on at such places on the Project and also in such order or precedence as may be found necessary to expedite completion of the Project. After Work has begun on any **portion of a designated part of the Project, it shall be carried forward to its final completion as** rapidly as practicable. The order and time to complete the Work shall conform, in general, with the requirements of the Project Construction Schedule.

1.7 THE BID CATEGORY CONTRACTOR'S USE OF PROJECT SITE / DELIVERY AND STAGING OF MATERIALS

A. The Bid Category Contractor's use of the Project site shall be limited to its construction operations, including on site storage of materials and equipment, on site fabrication facilities, and field offices.

B. Staging and storage of materials on site by The Bid Category Contractor's shall primarily be permitted in the areas approved in writing and scheduled in advance by the County's Representative.

C. The Bid Category Contractor's shall be responsible for the protection of its own Work during construction and protection of its own material during delivery, unloading, hoisting, while in storage, until accepted by the County Representative.

D. Material/Personnel Hoisting:

1. The Bid Category Contractor's shall include all hoisting, rigging and final placement required for all materials and equipment necessary for the proper completion of the work.
2. The Bid Category Contractor's will submit for approval his proposed scheme for the hoisting of all major equipment, including any required shop drawings, sketches and/or load distribution diagrams so as to allow hoisting activities to be coordinated and approved with other The Bid Category Contractor's field operations.

3. The Bid Category Contractor's shall schedule all material hoisting with the County's Representative a minimum of 48 hours prior to the time requested in order to coordinate the use of the designated hoisting area.

E. The Bid Category Contractor's shall deliver materials to the jobsite in order to provide for the proper execution of the Work in a continuous, uninterrupted fashion unless scheduled otherwise by the County's Representative. Material deliveries shall be scheduled in coordination with the County's Representative and other The Bid Category Contractor's.

F. If The Bid Category Contractor's materials are stockpiled in unapproved areas or creating interference or obstruction with the Work of others, or if they are overloading the structure then, at the discretion of the County's Representative, the Bid Category Contractor's shall be required to relocate these materials at The Bid Category Contractor's expense. If materials are not relocated in the specified time, the County reserves the right to move such materials and back charge the Bid Category Contractor's.

1.8 COUNTY USE OF THE PROJECT SITE

The County and their authorized representatives shall be allowed access to the Project site at all times during the period of construction.

1.9 SURVEY OF ADJACENT SITE CONDITIONS

A. Prior to commencement of Work, **it is the responsibility of the Bid Category Contractor's to initiate and coordinate a site survey.** The Bid Category Contractor's shall jointly survey the site, and all other pertinent items with the County and/or the County Representative, noting and recording existing damage such as cracks, sags, and other damage to on-site.

B. This record shall serve as a basis for determination of subsequent damage to these items due to The Bid Category Contractor's operations.

C. Existing damage observed shall be marked and the official record of existing damage shall be signed by the parties and submitted to the County's Representative prior to start of Work.

D. Damage to the site, and other items not noted in the original survey but subsequently observed shall be reported immediately by The Bid Category Contractor's to the County's Representative.

E. Should the Bid Category Contractor's not schedule / coordinate this survey, any damage noted to adjacent finishes shall be repaired by the Bid Category Contractor's at the Bid Category Contractor's expense.

1.10 PROTECTION OF EXISTING UTILITIES AND FACILITIES

A. The Bid Category Contractor's shall provide adequate protection, as required, of adjacent materials and adjacent properties.

B. The Bid Category Contractor's shall be solely responsible for any damage to public property, private property, or to utilities caused by The Bid Category Contractor's operations. Any such damage shall be corrected by The Bid Category Contractor's in a manner approved by the damaged party, and/or the County, at no additional cost to the County.

C. The Bid Category Contractor's shall, at all times, keep the project and areas continuously clean and free from accumulation of the waste materials or debris resulting from The Bid Category Contractor's operations, in a manner and to the extent acceptable to the

County's Representative and the County.

1.11 CORRESPONDENCE

All correspondence, submittal, requests, questions, shop drawings, etc., between the Bid Category Contractor's and the County, Engineer, Consultants or any other Project related staff shall be directed through the County's Representative.

END OF SECTION

SECTION 01 21 00
ALLOWANCES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Allowances which the Bid Category Contractor shall provide for designated construction activities in the Work and in this bid.

1.02 RELATED DOCUMENTS

A. The Conditions of the Contract and other sections of Division 01 apply to this section as fully as if repeated herein.

1.03 DESCRIPTION OF REQUIREMENTS

A. Definitions and Explanations: Certain requirements of the construction related to each allowance are indicated and specified. The allowance has been established by the County and represents selection by the County for designated portions of the Work specified and shown.

B. Types of allowance scheduled herein for the Work include lump sum cash allowances. Include all allowances in Contract sum and identify all allowances in Schedule of Values as separate line items.

C. Selection and Purchase: At earliest feasible date after award of contract, advise the Construction Manager of scheduled date when final selection and purchase of each product or system described by each allowance must be accomplished in order to avoid delays in performance of the Work.

1. Establish date by which the Bid Category Contractor must enter into contract and coordinate with sub-contractor responsible for work defined by allowance.

2. Establish date by which final list of products must be established for purchase of products and systems as specifically selected by the County.

1.04 DEFINITIONS AND DESCRIPTION OF REQUIREMENTS

A. Cash Allowance Criteria

1. The Allowance is used only as directed by the County.

2. The Allowance is used exclusively for the County's purposes and for the defined Scope of Work.

3. The Bid Category Contractor will prepare detailed breakdown of all costs associated with the work defined for the allowance. These amounts will be charged against the Allowance by Change Order, based on final detailed payment receipts and back-up as required by Architect and Construction Manager, and will include all direct costs of work performed under the defined work scope.

   a. The Bid Category Contractor shall obtain quotes for equipment from three separate vendors and present them to County for consideration and selection.

4. The Bid Category Contractor shall include in the base bid contract amount all cost of coordination, supervision, bond costs, overhead and profit, supervision, installation and all indirect project costs associated with the work defined. Where allowance amount is not

exceeded, no general contractor costs will be permitted to be charged against the allowance amounts specified below.

a. At project closeout, unused Cash Allowance amounts shall be credited to the County by Change Order.

b. Changes that exceed the amount of each allowance will be processed as a Change Order per Contract Documents.

B. Material and Labor Allowance Criteria

1. Applies to all material and labor allowances identified in the contact documents.

2. The Allowance is used only as directed by the County.

3. The Allowance is used exclusively for the County's purposes and for the defined Scope of Work.

4. The Bid Category Contractor will prepare detailed breakdown of all costs associated with the work defined for the allowance. These amounts will be charged against the Allowance by Change Order, based on final detailed payment receipts and back-up as required by Architect and Construction Manager, and will include all direct costs of work performed under the defined work scope.

   a. The Bid Category Contractor shall obtain quotes for equipment from three separate vendors and present them to County for consideration and selection.

5. The Bid Category Contractor shall include in the base bid contract amount all cost of coordination, supervision, bond costs, overhead and profit, supervision, installation and all indirect project costs associated with the work defined. Where allowance amount is not exceeded, no general contractor costs will be permitted to be charged against the allowance amounts specified below.

   a. At project closeout, unused Material and Labor Allowances shall be credited to the County by Change Order based on the cash value established per Section 1.04.B.4.

   b. Changes that exceed the amount of each allowance will be processed as a Change Order per Contract Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 SCHEDULE OF CASH ALLOWANCES

Included in the Total Bid Amount are the Allowances identified below. Items covered by Allowances shall be provided for such amounts and by such persons or firms as the County may direct.

Building and Site Work

ALLOWANCE BC-01	**Misc Specialties**	**$5,000**
ALLOWANCE BC-02	**Abatement**	**$40,000**
ALLOWANCE BC-03	**Concrete and Curb Repair**	**$30,000**
ALLOWANCE BC-04	**Structural Steel**	**$40,000**
ALLOWANCE BC-05	**Crane Rental Allowance**	**$80,000**
ALLOWANCE BC-06	**Roofing**	**$15,000**
ALLOWANCE BC-07	**Doors**	**$15,000**
ALLOWANCE BC-08	**Glazing**	**$10,000**
ALLOWANCE BC-09	**Patching and Painting**	**$20,000**
ALLOWANCE BC-10	**ACT**	**$10,000**
ALLOWANCE BC-11	**Touch up Painting**	**$5,0000**
ALLOWANCE BC-12	**Flooring**	**$10,000**
ALLOWANCE BC-13	**Fire Sprinkler**	**$10,000**
ALLOWANCE BC-14	**Plumbing**	**$15,000**
ALLOWANCE BC-15	**HVAC/Mechanical**	**$25,000**
ALLOWANCE BC-16	**Electrical**	**$30,000**
ALLOWANCE BC-17	**Low Voltage**	**$7,500**

Contractor shall itemize the allowances listed above on the bid form in the designated areas for any additional effort, over and above contract work due to existing conditions, obstructions or unforeseen items encountered which are not readily discernible prior to construction. Allowance will also be used at the County's discretion for any required supplemental work.

END OF SECTION

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SECTION 01 26 00
CHANGE ORDER PROCEDURES

PART 1 - GENERAL

1.1 DESCRIPTION

A. This Section specifies administrative and procedural requirements for handling and processing Change Orders and other modifications to the Contract.

1.2 WORK DIRECTIVE CHANGE PROPOSAL REQUEST

A. County Initiated Field Work Directive Change Proposal Requests: Proposed changes in the Work that will require adjustment to the Contract Sum or Contract Time will be issued by the County's Representative, with a detailed description of the proposed change and supplemental or revised Drawings and Specifications, if necessary, under a Field Work Directive.

1. Unless otherwise indicated in the Field Work Directive (FWD), within seven (7) days of receipt of the (FWD), submit to the County's Representative for the County's review an estimate of cost necessary to execute the proposed change.

    a. Include a list of quantities of products to be purchased and unit costs, along with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities. Furnish a complete labor breakdown, labor rates, man hours by trade and level, etc.

    b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

    c. Submit a proposed schedule and narrative statement indicating the effect the proposed change in the Work will have on the Contract Time.

B. Contractor Initiated Field Work Directive Proposal Requests: When latent or other unforeseen conditions require modifications to the Contract, the Contractor **MUST** notify the Construction Manager immediately at the time of the condition to allow Construction Manager to determine the best course of action. Contractor shall also notify the Construction Manager in writing the same day and request a Field Work Directive change from the County's Representative whereupon the (FWD) designate a Potential Change Order (PCO) to it for tracking purposes.

1. Include a narrative statement outlining reasons for the change, including comprehensive reference to the section(s) of the Contract Documents, which justify Contractor's entitlement to the change, and describe the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Price and a proposed schedule indicating the effect on the Contract Time.

C. Contractor shall refer to the Division 00 – General Conditions and Supplemental Conditions for additional relevant information.

D. All Contractor Change Order Requests (COR) shall be submitted on the form provided in Section 01 99 99 – FORMS. **No other form will be accepted.**

1.3 CHANGE ORDER PROCEDURES

A. Upon the County's approval of the Proposed Change Order, the County's Representative will issue a Change Order for signatures of the Architect, Construction Manager, and Contractor and submit to the County Board for formal approval. Upon board approval, the change order shall be placed on the trade contractor's schedule of values for payment.

PART 2 – PRODUCTS NOT USED

PART 3 – EXECUTION NOT USED

END OF SECTION

SECTION 01 29 76
APPLICATION FOR PAYMENT

PART 1 - GENERAL

1.1 DESCRIPTION

A. This Section specifies administrative and procedural requirements governing the Contractor's Applications for Payment, including preparation and submittal of a Schedule of Values (SOV).

1.2 SCHEDULE OF VALUES

A. Contractor shall review Article 20 of the General Conditions and Supplemental Conditions for additional applicable information.

B. Submit a Schedule of Values, for review and approval by the County Representative, within Thirty (30) days after issue of NTP unless noted otherwise in the schedule section of Division 01.

C. Phased Work: Where the Work is separated into phases, the SOV shall represent this phased work and shall follow the same format and content as noted herein.

D. Format and Content: The Schedule of Values shall be submitted to the County's Representative.

1. Contractor shall review Article 20 of General Conditions and Supplemental Conditions for additional applicable information.

2. Round amounts off to the nearest whole dollar; the total shall equal the Contract Sum.

3. For each part of the Work where an Application for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed, provide separate line items on the Schedule of Values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.

E. Margins of Cost: Show line items for indirect costs, and margins on actual costs, only to the extent that such items will be listed individually in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be complete including its total cost and proportionate share of general overhead and profit margin.

F. Schedule Updating: Change Orders shall not be included in Applications for Payment until the respective modification in Contract Sum has been included in an executed Change Order.

1.3 APPLICATIONS FOR PAYMENT

A. Requirements: Refer to Article 20 of the General Conditions and Supplemental Conditions for additional applicable information.

B. Monthly Progress Procedure: The Construction Manager will produce and process the billing each and every month.

1. During the first of each month, during the progress of the portion of the Work for which payment is being requested, the Construction Manager will forward a draft billing for the Prime Contractor's approval indicating the percentages

representative of the work installed. The Prime Contractor shall affix comments and/or initials and return draft billing.

a. Material invoices, evidence of equipment purchases and rentals, along with other support and details of cost, may be required to be submitted to the Owner from time to time.
b. Draft billings not returned to the Construction Manager by the requested time will be assumed “correct as noted”.

2. The Construction Manager will then forward one formal billing to the Prime Contractor.
   a. Contractor shall photo copy to produce a total of four copies wet sign all four and return to the Construction manager by the requested date.
   b. Along with the returned billing, contractor shall provide all the necessary attachments in accordance with Article 20 of the General Conditions and Supplemental Conditions.
   c. Failure to return the billing or applicable attachments within the time frames specified by the Construction Manager will result in processing no sooner than the next application period.
3. Upon receipt of the complete billing submittal, the Construction Manager will coordinate all the necessary signatures and submit to the owner for payment process.
   a. All billing requests are submitted to the County of Riverside for check issuance.
   b. Checks are returned to the owner for distribution

C. Application for Payment at Substantial Completion: Upon the Contractor satisfying the requirement per Article 22 of the General Conditions and Supplemental Conditions, inclusive of the following as noted below, Contractor shall request an Application for Payment.

1. A submitted punch list from trade contractor to Construction Manager and Architect for review. Upon receipt, Architect, Construction Manager, Owner, and IOR shall walk and add to the list if necessary. Contractor shall provide completion dates to each listed item
2. Warranties and maintenance agreements are submitted and approved by the Architect
3. Test records and as-builts are complete and approved by Architect
4. Meter readings (if required).
5. Operation and Maintenance Manuals have been submitted and approved by the Architect
6. Conditional Waiver and Release for current progress payment
7. Unconditional Waiver and Release for prior progress payment
8. Consent of Surety letter acknowledging payment
9. No filed stop notices
10. No Labor compliance issues
11. No lawsuit.

D. Final Payment Application:
   1. Refer to Article 22 of General Conditions and Supplemental Conditions.

PART 2 – PRODUCTS NOT USED

PART 3 – EXECUTION NOT USED

END OF SECTION

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SECTION 01 31 19
PROJECT MEETINGS

PART 1 - GENERAL

1.1. REQUIREMENTS INCLUDED

A. The County's Representative will schedule and administer a pre-construction meeting, regular progress meetings, and specifically called meetings throughout progress for the work and will:

1. Prepare agenda for meetings.
2. Make physical arrangements for meetings.
3. Preside at meetings.
4. Record the minutes; include significant proceedings and decisions.
5. Reproduce and distribute copies of minutes after each meeting to participants in the meeting and to parties affected by decisions made at the meeting.

Contractor representatives, subcontractors and suppliers attending meeting shall be qualified and authorized to act on behalf of entity each one represents.

1.2. PRE-CONSTRUCTION MEETING

A. Timing: Prior to start of construction.

B. Attendance: Architect and consultants as appropriate, County's Representative, Construction Manager, Trade Contractors (including subcontractors, manufacturers and suppliers) as requested, and Inspector.

C. Purpose: To discuss and familiarize contractors with project procedures, expectations and deliverables, schedule, safety procedures, labor compliance

1.3. COORDINATION MEETINGS

A. Timing: Once per week, at a minimum, day and time to be determined by Construction Manager.

B. Attendance: Construction Manager and Trade Contractors and their subcontractors as necessary. Architect, consultants, and inspector as required. Contractors shall begin attending the meeting at least three (3) weeks prior to mobilizing their crews. **Attendance is not optional, it is mandatory.**

C. Purpose:

1. To provide a formal and regular forum for the Construction Manager and Contractors to present: questions, problems or issues that need to be addressed safety concerns, review the progress on previous issues and action items, submittal and schedule review. All necessary coordination with dependent Trades.

2. To review the 4 week look ahead schedule produced by the Construction Manager, reviewed by the foremen's with collaborative feedback, agreement to execute.

3. This shall **not** be the only or sole time that the items noted above shall be presented or addressed. Each Trade Contractor has a responsibility to address such items in a timely manner as not to impact dependent trades or the project schedule.

1.4. SPECIAL CALLED MEETINGS

The County's Representative may call a special meeting at any time during the course of the project. Special project meetings shall include representatives of any members of the project team requested in order to discuss problems and/or solutions that are common to the project.

PART 2 – PRODUCTS NOT USED

PART 3 – EXECUTION NOT USED

END OF SECTION

SECTION 01 32 16

CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for a successful execution of the Work, as well as documenting the progress of construction during performance of the Work, which includes the following:

1. Notice to Proceed
2. Milestones / Liquidated Damages
3. Construction Schedule
4. Submittals
5. Coordination Drawings
6. Procurement / Fabrication / Delivery
7. Daily Work Reports

B. Related Sections include the following:

1. General Conditions
2. Supplemental Conditions
3. All of Division 01 – General Requirements

1.2 NOTICE TO PROCEED

A. NTP begins the start of administrative, early planning / coordination, submittals and procurement and fabrication, delivery and the start of construction.

1.3 MILESTONES

A. Each trade shall be familiar with their respective deliverable(s) and the associated day following the date of the Notice to Proceed (NTP) that it is due. It is the sole responsibility of the contractor to **properly plan and execute** to ensure their respective deliverable / milestone is submitted on time.

B. Any deliverable missed, contractor shall be accessed the associated liquidated damage per day until the complete package or required contract obligation has been received.

1.4 CONSTRUCTION SCHEDULE

A. Refer to Appendix “A” attached herein for the “Project Construction Schedule”

B. The “Project Construction Schedule” is included in the specifications. It is composed of tentative starting dates and fixed durations for **major** activities of work on the project. **Not all activities have been shown**. This **DOES NOT** relieve the contractor from complying with the requirements of the schedule or initiating and coordinating their respective work as necessary in the proper sequencing of the Work.

C. Refer to Appendix “B” for milestone and submittal dates and associated liquidated damages

D. Prime Contractor to provide Manpower information for each respective activity and activities not shown but necessary. The manpower shall represent the crew size required each day to fully execute the trade’s scope of work. This information is required within 10 day of NTP issuance.

E. CONTRACTOR must coordinate all work with all other contractors on the project through the CONSTRUCTION MANAGER'S Project Superintendent in order to complete each activity of their work within the fixed durations assigned to same as shown on the "PROJECT CONSTRUCTION SCHEDULE".

F. Schedule start dates as shown on the PROJECT CONSTRUCTION SCHEDULE are referred to as "tentative" only to the affect that said dates will be continually adjusted either forward or backward by the CONSTRUCTION MANAGER as the project progresses. Upon receipt of 48 hours advanced notice by the CONSTRUCTION MANAGER to begin work on an activity, CONTRACTOR must properly man and perform the work of said activity and complete same within the noted number of consecutive working days or less assigned to said activity in the PROJECT CONSTRUCTION SCHEDULE.

G. CONTRACTOR is expected to continually monitor all phases of the project field construction progress in order to insure that CONTRACTOR'S work is properly implemented into the overall project improvements.

H. CONTRACTOR is expected to provide properly trained and skilled mechanics in adequate numbers and equipment needed and/or required in order to properly and efficiently complete all work activities per the schedule. Should CONSTRUCTION MANAGER have reason to believe at any time that CONTRACTOR is not providing an adequate workforce armed with the proper materials and/or equipment, CONSTRUCTION MANAGER shall give CONTRACTOR written notice of same. Activity Manpower loading submitted shall in no way limit the responsibility of the CONTRACTOR to perform to the fixed duration requirements of the PROJECT CONSTRUCTION SCHEDULE.

I. Recovery Plan

1. If at any time, the contractor is behind schedule by more than three days for any stage of Work, based on the updated Contract Schedule after incorporating all approved time extensions, Contractor shall submit to the County's Representative within five (5) days of notification of such delay, a "recovery plan". The recovery plan shall be based on proposed revisions to Contract Schedule and shall show how Contractor intends to bring the Work back on schedule. Recovery plan shall also include a written description of how the measures that Contractor intends to take without additional cost to the County will regain schedule compliance. The recovery plan activities shall be identified according to their relationship to activities.

2. Should Contractor fail to submit and execute such recovery plan, the County shall have the option to direct Contractor to employ any or all measures that the County may deem fit to regain schedule compliance without additional cost to the County.

3. Recovery plan submitted by Contractor, upon acceptance by the County's Representative, shall be incorporated into the Contract Schedule during the next update.

4. Contractor will be required to submit a recovery plan for each activity that is more than three day or more behind schedule.

5. Should Contractor dispute the determination of the County's Representative regarding the status on a contract delay, such dispute shall not relieve him/her of the responsibility to comply with the requirements of this Section and other related Sections until the dispute is resolved per Contract terms.

J. Inclement Weather:

1. The agreement between the County and Contractor indicates the number of

calendar days of Contract time for the Work. Within the stipulated Contract Time, the Bid Schedule, included in the bid documents, includes weather days in the project duration.

2. The number of weather related days have been built into the critical path. The project owns the allowable rain days. As the number of approved inclement weather days increases, the duration of this allowance or activity will decrease the corresponding number of days. No other activities may be concurrent with this activity.

3. Delays in the construction due to inclement weather will be construed as excusable delay only for the days in which the inclement weather substantially caused delay in overall progress of the Project by affecting Critical Work Activities.

4. Contractor shall submit a written claim on Company letterhead for each delay due to inclement weather within two (2) calendar days from the day of inclement weather. Contractor shall document the date and the nature of the inclement weather, the specific activity in which the inclement weather caused delay, and the task or operation in each trade that was delayed and its relation to the Critical Path.

    a. The County's Representative will review the claim and the written documentation submitted by the Contractor and compare with the Contract Schedule. If the County's Representative finds that the inclement weather did substantially cause delay in the overall progress of the Project, the delay will be deemed an excusable delay.

5. Excusable delays shall be first deducted from the allowance of excusable delays shown on the Contract Schedule. When the total number of days for excusable delays due to inclement weather exceeds the allowance, the excess will be granted through extension of the Contract Time by Change Order the affected bid Categories only in accordance with the provisions of the General Conditions. Extension to the Contract Time due to inclement weather will be granted only for excusable delay in excess of the allowance.

6. If the Contractor fails to submit a claim and documentation within the stipulated time, the inclement weather shall be construed to have caused no delay in the construction.

7. WEEKEND / AFTERHOURS WORK OR MODIFIED HOURS

    a. It is each Contractor's responsibility to meet each completion date for each task on the schedule, which in turn, may or may not specifically identify required weekend, after hours work, or modified working hours. These provisions shall also apply, but not limited to utility tie-ins, system related tie-ins, switchovers, site need considerations, contractor delay, and etc. type of work.

    b. When the facility operation will or may be impacted, contractor MUST have performed their respective work on the weekend, after hours or during modified working hours to complete scheduled activities at NO additional expense to the Owner.

    c. Extended work shifts and/or working on Saturdays will be required for specific trades to meet the construction schedule. Refer to the general conditions for additional information.

1.5 Submittals

A. Contractor shall comply with Division 00 and 01 for the compliance and procedure of

submittal submission.

B. All submittals regardless of when the respective scope of work is scheduled to be installed shall be completely submitted within the time frames as established in appendix “B”.

1.6 Coordination Drawings

A. Refer to section 01 30 10 Project Coordination and Building Information Modeling for additional specific information.

1.7 Procurement / Fabrication Schedule

A. Category Contractors shall provide dates as to when material must be ordered / fabricated and delivered to the project site. At no time shall delivery of material later than what is required as not to impact the schedule or dependent contractors will be acceptable.

B. Contractor shall provide written confirmation of ordered / fabricated material and delivery.

1.8 Daily work Reports

A. Each trade shall provide a daily work report each day. Refer to section 01 99 99 – Forms for the form that will be used.

PART 2 - PRODUCTS NOT USED

PART 3 – EXECUTIONS NOT USED

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Procedural requirements for non-administrative submittals including product data, shop drawings, samples and other miscellaneous work-related submittals required by Contract Documents.

B. Refer to Division 00 and other Division 01 sections and other contract documents for specifications for administrative submittals; such submittals include, but are not limited to following items:
   1. Permits.
   2. Payment applications.
   3. Performance and payment bonds.
   4. Insurance certificates.
   5. Inspection and test reports.
   6. Schedule of values.
   7. Progress schedule.
   8. Listing or designation of subcontractors.
   9. Record drawings

C. Designate in progress schedule, or in separate coordinated schedule, dates for submission and dates reviewed shop drawings, product data and samples will be needed for each product.
   1. Identify items requiring long lead times.

D. The Contractor's submittal and Architect's acceptance of Product Data, Shop Drawings or Samples that relate to construction activities not complying with Contract Documents does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

E. Product Data, Shop Drawing and Sample Submittals containing substitutions for specified items will be rejected and returned as not in compliance with Contract Documents.

1.2 PRODUCT DATA

A. Product Data includes standard printed information on manufactured products that has not been specially prepared for this Project, including but not limited to following items:
   1. Manufacturer's product specifications and installation instructions.
   2. Standard color charts.
   3. Catalog cuts.
   4. Roughing-in Diagram and templates.
   5. Standard wiring diagrams.
   6. Printed performance curves.
   7. Operational range diagrams.
   8. Mill reports.
   9. Standard product operating and maintenance manuals.

B. Modify standard drawings to delete information which is not applicable to the Project.

C. Supplement standard information to provide additional information specifically applicable to Project.
   1. Clearly mark each copy to identify pertinent materials, products or models.
   2. Show dimensions and clearances required.
   3. Show performance characteristics and capacities.

4. Show wiring or piping diagrams and controls.

1.3 SHOP DRAWINGS

A. Shop drawings are technical drawings and data that have been specially prepared for Project, including but not limited to following items:
   1. Fabrication and installation drawings.
   2. Setting diagrams.
   3. Templates.
   4. Patterns.
   5. Coordination drawings (for use on-site).
   6. Schedules.
   7. Design mix formulas.
   8. Contractor's engineering calculations.

B. Standard information prepared without specific reference to Project is not considered to be shop drawings.

1.4 SAMPLES

A. Samples are physical examples of Work, including but not limited to following items:
   1. Partial sections of manufactured or fabricated work.
   2. Small cuts or containers of materials.
   3. Complete units of repetitively used materials.
   4. Swatches showing color, texture and pattern.
   5. Color range sets.
   6. Units of work to be used for independent inspection and testing.

B. Office Samples:
   1. Provide in specified size and quantity to clearly illustrate:
      a. Functional characteristics of product or material, with integrally related parts and attachment devices.
      b. Full range of color, texture, and pattern.
   2. Where size and quantity is not specified, provide minimum of four samples, 12 inch by 12 inch minimum size, where samples are required.

C. Field Samples and Mock-Ups:
   1. Erect at Project Site in location acceptable to Architect.
   2. Construct each sample or mock-up complete, including work of trades required in finished work.
   3. Size or area as specified in respective specification section.
   4. Remove mock-ups at conclusion of Work or when acceptable to Architect and dispose legally.

1.5 VERIFIED REPORTS

A. Submit Verified Reports shall be submitted when required by the County, the Inspector of Record, the Architect and/or their Consultants, or as required by regulatory agencies, codes, laws, ordinances, etc.

1.6 DEFERRED APPROVALS

A. Submit detailed plans, specifications and engineering calculations for Deferred Approval items.

B. Calculations and drawings of structural nature shall be prepared and signed by registered Structural Engineer licensed in State of California.

C. Submit 8 sets.
   1. If revisions are necessary, Architect will return one (1) set to contractor.
   2. Resubmit 8 sets with corrections.

D. Fabrication and installation of Deferred Approval items shall not be started until detailed plans, specifications and engineering calculations have been accepted by Architect, Design Consultants, Building Officials, Regulatory Agencies, and/or County.

1.7 MISCELLANEOUS SUBMITTALS WORK-RELATED:

A. Include, but not limited to following types of submittals:
   1. Specially-prepared warranties (guarantees).
   2. Standard printed warranties.
   3. Maintenance agreements.
   4. Printed industry standards.
   5. Collected and bound operating/maintenance manuals.
   6. Keying schedule, keys and other security protection safety devices.
   7. Maintenance tools and spare parts.
   8. Maintenance materials and overrun stock.

1.8 CONTRACTOR RESPONSIBILITIES

A. As defined in General Conditions.

B. Review shop drawings, product data and samples for compliance with Contract Documents prior to submission.

C. Determine and Verify:
   1. Field measurements.
   2. Field construction criteria.
   3. Catalog numbers and similar data.
   4. Conformance with Specifications and Drawings.

D. Coordinate each submittal with requirements of Work and of Contract documents.

E. Notify Architect in writing, at time of submission, of deviations in submittals from requirements of Contract Documents.

F. Do not begin fabrication or work which requires submittals until return of submittals with Architect's approval.

1.9 SUBMISSION REQUIREMENTS

A. Make submittals promptly in accordance with approved schedule, and in such sequence as to cause no delay in Work or in work of other contractor.

B. Coordinate transmittal of different types of submittals for related elements of Work so processing will not be delayed by need to review submittals concurrently for coordination.
   1. The Architect reserves right to withhold action on submittal requiring coordination with other submittals until related submittals are received.

C. Accompany submittals with an accurately completed transmittal form provided in section 01 99 99 - Forms.
   1. Submittals not accompanied by such form, or where applicable items on form are not completed, will be returned for resubmittal.
      a. Sample of transmittal form is included at end of this section.
   2. Photo copy related specification section identifying submittal requirements and identify/bubble items that are being submitted.

D. Use a separate transmittal form for each specific item or class of material or equipment for which submittal is required.
   1. Transmittal of submittals on various items using single transmittal form will be permitted only when items taken together constitute manufacturer's package or are so functionally related that expediency indicates review of group or package as whole.

E. Schedule submissions per the deliverable timelines as specified in section 01 32 16.
   1. No extension of Contract Time will be authorized because of failure to transmit submittals to Architect sufficiently in advance of Work to permit processing.

F. Number of Submittals Required: Submit quantities as follows.
   1. Shop Drawings: Submit eight (8) full-sized/legible copies.
   2. Product Data: Submit eight (8) copies of manufacturer's product data.
   3. Samples: Submit number stated in each specification section, or, if not stated, submit as specified.
   4. Warranties, Maintenance Agreements, Industry Standards, and Operating/Maintenance Manuals: Submit four (4) copies.
   5. Electronic Copies: Where deemed necessary or applicable to the project, electronic copies may allowed to be provided in lieu of hard copies. Prior written approval must be granted before electronic copies shall be deemed acceptable. This clause does not apply to samples and/or mock-ups.

G. Accompany submittals with transmittal form provided by Architect, containing:
   1. Date.
   2. Project title and number.
   3. Contractor's name and address.
   4. Number of each shop drawing, product data and sample submitted.
   5. Notification of deviations from Contract Documents.
   6. Pertinent data.

H. Submittals shall include:
   1. Date and revision dates.
   2. Project title and number.
   3. Names of:
      a. Architect/Engineer.
      b. Contractor.
      c. Subcontractor.
      d. Supplier.
      e. Manufacturer.
      f. Separate detailer when pertinent.
   4. Identification of product or material.
   5. Relation to adjacent structure or materials.
   6. Field dimensions, clearly identified as such.
   7. Specification section number.
   8. Applicable standards, such as ASTM number or Federal Specification.
   9. A blank space, 8 inch by 3 inch, for Contractor and Architect stamps.
   10. Identification of deviations from Contract Documents.
   11. On each sheet, provide contractor's stamp, initialed or signed, certifying to review of submittal, verification of field measurements and compliance with Contract Documents.
   12. Submittals without Contractor's review stamp on each sheet will be returned, without action, for resubmittal.

1.10 RESUBMISSION REQUIREMENTS

A. Shop Drawings:

1. Revise initial drawings as required and resubmit as specified for initial submittal.
2. Indicate on drawings any changes which have been made or than those requested by Architect.

B. Product Data and Samples: Submit new data and samples as required for initial submittal.

1.11 DISTRIBUTION OF SUBMITTALS AFTER REVIEW

A. Construction Manager to distribute Shop Drawings and copies of Product Data and approved Deferred Approvals (if any), which carry Architect/Engineer stamp, with such reasonable promptness as to cause no delay in Work, but no later than three working days of receipt, to:
1. Job site file.
2. Record Documents file.
3. Prime Contractor.
4. Affected contractors.
5. Owner's Inspector.

B. Prime Contractor is responsible to coordinate distribution to their subcontractors and internal staff.

C. Distribute samples which carry Architect's review stamp as directed by Architect.

1.12 ARCHITECT'S DUTIES

A. As defined in the General Conditions.

B. Architect will review submittals as originally submitted, as well as first resubmittal, at Architect's own cost.
1. Architect's cost for reviewing additional resubmittals made or required, will be paid by Owner with reimbursement from Contractor by deductive change order.

C. Action Stamp: Architect will stamp each submittal with uniform, self-explanatory stamp will be appropriately marked, as follows, to indicate action taken:

1. Final Unrestricted Release: Where submittals are marked "**No Exception Taken**", that part of Work covered by submittal may proceed provided it complies with requirements of Contract Documents; final acceptance will depend upon that compliance.
2. Final-But-Restricted Release: When submittals are marked "**Make Corrections Noted**", that part of Work covered by submittal may proceed provided it complies with notations or corrections on submittal and requirements of Contract Documents; final acceptance will depend on that compliance.
3. Returned for Resubmittal: When submittal is marked "**Rejected**" or "**Revise and Resubmit**", do not proceed with that part of Work covered by submittal, including purchasing, fabrication, delivery, or activity.
    a. Revise or prepare new submittal in accordance with notations; resubmit without delay.
        1) Repeat if necessary to obtain different action mark.
4. Do not permit submittals marked "Rejected" or "Revise and Resubmit" to be used at Project Site, or elsewhere where Work is in progress.

D. Unsolicited Submittals: Architect will return unsolicited submittals to sender without action.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION NOT USED

3.01 SUBMITTAL FORM

A. Refer to Section 01 99 99 for required form.

END OF SECTION

BID AND CONTRACT DOCUMENTS 2 of 3

FOR

PROJECT No. MC08430011869

CARDIAC CATHETERIZATION LABORATORY

Riverside University Health System Medical Center
26520 Cactus Ave, Moreno Valley, CA 92555

Los Angeles Corporate
555 First Street
San Fernando, CA 91340
T 818 898 1521
F 818 361 9208

SECTION 01 44 40

SITE SAFETY PROGRAM

PART 1 – INTRODUCTION AND BASIC ELEMENTS

1.1 RELATED DOCUMENTS AND PROVISIONS

A. All Contract Documents should be reviewed for applicable provisions related to the provisions in this section, including without limitations:
   1. Drawings and Specifications.
   2. General Conditions, Special Conditions and Supplementary Conditions.
   3. Summary of Work.
   4. Other General Requirements.
   5. Local, State and Governing Agencies.
   6. Applicable Cal/OSHA Standards (Title 8).
   7. Referenced consensus standards, including ANSI, NFPA, (where applicable).

1.2 Definitions

A. Competent Person – One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous and is knowledgeable of applicable regulations and who has authorization to take prompt corrective measures to eliminate risks or prevent personnel exposure to hazardous conditions.

B. Globally Harmonized System Program (GHS) – Federal required program which includes providing and maintaining project related Safety Data Sheets (SDS), providing chemicals to be used and inventory protocol, and providing a list of hazardous substances and their use.

C. Hazardous Communication Program (HCP) – CAL OSHA required program which includes providing and maintaining project related Safety Data Sheets (SDS), providing chemicals to be used and inventory protocol, and providing a list of hazardous substances and their use.

D. Incident – An unexpected happening causing a “near miss”, loss, or injury, including without limitation, accidental or unanticipated events involving personal injury, illness or property damage.

E. Job Hazard Analysis (JHA) – A task-driven planning document used to help ensure every task receives proper safety assessment and planning.

F. Personnel – Any person employed by Contractor and/or business, firm, person, including but not limited to deliveries, suppliers, and vendors that has an agreement with Contractor, in which Contractor has a contract agreement with Owner that is providing services to the project site.

G. Qualified Person – A designated person who by possession of a recognized degree, certificate, or professional standing, or who, by extensive knowledge, training and experience, has successfully demonstrated his/her ability to solve and resolve problems with the ability to safely perform all assigned duties and, when required, is properly licensed in accordance with federal, state, or local laws and regulations.

H. Site Specific Safety Plan (SSSP) – A written plan communicating how the work will be done safely taking into consideration personnel, others on the project site, inspectors, visitors, and the general public.

I. Contractor – A business, firm, person that has a contract agreement with Owner.

J. Subcontractor - A business, firm, person that has a contract agreement with Contractor, in which Contractor has a contract agreement with Owner.

K. Supervisor - One who is trained and certified to identify existing and predictable hazards in the surroundings or working conditions and who has authorization to take prompt corrective measures to eliminate them.

1.3 General Safety Understanding

A. Contractors are responsible for their means, methods, techniques, sequences or procedures for safety in connection with their work. Construction Manager shall not have control over, charge of, or responsibility for Contractor's or their Subcontractor's means, methods, techniques, sequences or procedures for safety, nor shall the Construction Manager be responsible for acts of omission by Contractors, their Subcontractors, agents, employees, or any other persons performing portions on behalf of Contractors.

B. Safety requirements are the responsibility of the Contractor and their subcontractors.

C. Any sub-tier to a Contractor is responsible to comply with the safety requirements.

D. Contractor is responsible to ensure their sub-tier complies with these responsibilities.

E. Contractor retains sole responsibility for regulatory compliance and the means and methods employed to implement the contents of their Program.

F. The requirements set forth in this Section are complementary to, and do not supersede, the requirements of the General Conditions, General Requirements, Governing Agencies or other provisions of the Contract Documents pertaining to safety. In the event of a conflict between or among provisions relating to safety or protection, the provision that requires **the greater degree and higher level of action, care, caution or protection shall govern.**

G. Contractor shall comply fully with all Federal, State and/or local safety related laws, orders, citations, rules, regulations, standards and statutes.

H. Contractor shall comply with safety, health, and environmental laws and regulations of safe work practices. This section is **NOT** intended as a complete safety program.

I. Contractor shall comply with Site Specific Safety Plan (SSSP) requirements. These requirements are to be followed in addition to the Contractor's Injury and Illness Prevention Program (IIPP).

J. Any information or submittals provided to Construction Manager shall be reviewed solely to verify the content of the Contractor's submittal(s) and for record.

1.4 General Requirements

A. The Contractor has sole responsibility, on a twenty-four (24) hour day, seven (7) day week basis, for initiating, maintaining, supervising and enforcing all safety precautions and programs in connection with the performance of the Contract for the safety of their personnel, their subcontractors, the public, and the project site. This includes responsibilities for vendors, delivery and transportation services, and service providers at the project site. No actions, inspection or approvals by the Owner, Owner's Program Manager, Construction Manager, or other person acting on behalf of the Owner shall diminish such Contractor responsibility.

B. Contractor shall make Construction Manager immediately aware of:
   1. Any unique safety, health, or environmental concerns related to their work and make timely efforts to notify other affected Contractors working on project site and protect the public from hazards.
   2. Any safety or health inspections or other actions by Cal/OSHA, EPA, AQMD, Water Control Board, Health Department, or other Governmental Authorities.

C. If Contractor or their subcontractor employs non-English speaking personnel, the Contractor and/or subcontractor shall have a supervisor (superintendent or foreman) proficient in English and the foreign language(s).

D. Contractor shall be responsible to secure and comply with all permits, such as, but not limited to: excavations, tower cranes, temporary elevators, asbestos abatement, lead abatement, air permits, water permits, and hazardous waste generation. All permits are to be forwarded to the Construction Manager.

E. Contractor is responsible for maintaining all postings required by applicable laws and the contract documents, such as, but not limited to, the Cal/OSHA poster, Cal/OSHA 300 & 301 logs, first aid register, accident reports, equipment inspection records, and health and safety training records for personnel.

F. Contractor shall provide first aid kit/supplies in accordance with Cal/OSHA for their personnel and comply with governing regulations.

G. Contractor shall provide fire extinguishers of the appropriate size and type to be used and in accordance with NFPA recommendations for the type of exposure and the Site Specific Safety Plan.

H. Contractor shall ensure that no alcohol, firearms, weapons, animals, or controlled substances enter or are at the project site. Contractor shall immediately and permanently remove from the project site any personnel found in violation of this provision.

I. No radios, headphones, earbuds, ipods, MP3 players, music devices of any type or speakers are permitted on the project site.

J. No glass bottles are permitted.

K. Loose or frayed clothing, dangling ties, finger rings, etc. shall not be worn around moving machinery or other sources of entanglement.

L. Machinery shall not be repaired or adjusted while in operation, nor shall oiling of moving parts be attempted, except on equipment that is designed or fitted with safeguards to protect the person performing the work.

M. Do not work under vehicles or equipment or machinery supported by jacks or chain hoists without protective blocking that will prevent injury if jacks or hoists should fail.

N. Do not operate any motorized equipment, tractors, skip-loaders, forklifts, heavy equipment, and carryalls on surfaces, terrain, and slopes not permitted by the manufacture.

O. Pickup and/or delivery of supplies or equipment shall be limited to normal working hours (7:00 a.m. - 3:30 p.m.) unless previously arranged with Construction Manager.

P. Construction Manager shall designate a construction entry to the project site.

Q. Construction Manager shall designate a staging area so as not to interfere with the normal function of the Owner's operation.
   1. If Contractor requests additional staging and space permits, location and ingress/egress shall be coordinated in advance with Construction Manager. Additional fencing is at Contractor's expense.

R. Parking areas shall be reviewed and coordinated with Construction Manager in advance. No parking or material storage is to occur under the drip line of trees or in areas that could

otherwise be damaged.

S. When working in or around occupied areas; tenants, users, and the public have the right-of- way.
   1. All project sites have been declared “drug-free zones”. No drugs, alcohol and/or smoking are allowed at any time in any buildings and/or grounds or adjacent owner property.
   2. Smoking, E-cigarettes and the use of any tobacco products is prohibited on the project site or adjacent property.
   3. Foul language, unacceptable and/or loud language is prohibited. “Cat calls” or other derogatory language is prohibited.
   4. No clothing exhibiting profanity is permitted.
   5. No interaction with tenants, users and the public is permitted.
   6. Contractor shall observe the noise ordinance and mitigate at all times including, without limitation, all applicable local, city, and/or state laws, ordinances, and/or regulations.
   7. If portable lights are used after dark, all light must not be directed into neighboring property.
   8. All paths of travel for deliveries, including without limitation, material, equipment, and supply deliveries, shall be reviewed and coordinated with Construction Manager in advance. Any damage will be repaired to the pre-damaged condition by the Contractor.
   9. When on an active campus:
      a. No interaction with patients, staff or faculty is permitted.
      b. Driving on the premises shall be limited to periods when patients and public are not present. If driving or deliveries must be made during the hospital hours, two (2) or more ground guides shall lead the vehicle across the area of travel. The speed limit on-the premises shall be five (5) miles per hour (maximum) or less if conditions require.

T. Failure to follow these directives could result in individual(s) being suspended or removed from the project site at the discretion of Construction Manager. The same rules and regulations shall apply equally to delivery personnel, inspectors, consultants, and other visitors to the project site.

U. News Media
   1. Project site incidents resulting in news media coverage shall be immediately reported to the Construction Manager.
   2. Any questions from news media personnel (radio, television, and newspaper) must be referred to the Construction Manager.

PART 2 – CONTRACTOR AND SUBCONTRACTOR RESPONSIBILITIES

2.1 General Responsibilities

A. Shall have all applicable Cal/OSHA regulations available for use and reference at the project site.

B. Responsible to design and implement Site Specific Safety Plan (SSSP) and submit to Construction Manager for review.

C. Shall ensure their personnel are properly trained and instructed for all work that require specific training and/or competency to meet all applicable Cal/OSHA regulations, state and federal law, and the requirements herein.

D. Responsible for disposal on a daily basis, all rubbish and debris generated by its work.

E. Responsible for ensuring that prompt corrective action is taken when they are made aware of any safety issues and/or concerns.

F. Forward to Construction Manager a copy of any citation or warning for record.

G. "Competent Person", "Qualified Person" or "Supervisor" shall be readily available at the project site during activities requiring same.

2.2 Pre-Construction / Preparatory Meeting(s)

A. Prior to the start of work, Contractor shall submit to Construction Manager a copy of the items listed herein. If not applicable at the time of the meeting, Contractor shall submit a copy no later than 7 calendar days before the activity commences:

1. Code of Safe Practices.
2. Project specific Injury and Illness Prevention Plan (**IIPP**).
3. Heat Illness Prevention Plan (**HIPP**).
4. Hazard Communication/Globally Harmonized System **(GHS)** Program which includes:
   a. Safety Data Sheets (**SDS**).
   b. Chemical inventory list.
   c. Hazardous substance list.
   d. Refer to section 3.23 for additional information.
5. First Aid/CPR trained personnel on the project site and their expiration dates.
6. Operator's certification and documented training:
   a. Required certification.
      I. Forklift (expires 3 yrs).
      II. Crane (expires 3 yrs).
   b. Documented training on safe operations.
      I. Boom-lift.
      II. Scissor lift.
      III. All other equipment.
7. List of Contractor's: "Competent Person(s)", "Qualified Person(s)", "Licensed", or "Supervisor(s)" as defined by OSHA for the activities noted below. Refer to Exhibit "C.1" for the Competent Person Designation form. Contractor to fill this out and submit to the Construction Manager.
   a. Asbestos Abatement (Refer to section 3.2).....Competent
   b. Burning, Welding and Hot Work (Refer to section 3.4).....Competent
   c. Confined Space (Refer to section 3.8).....Competent
   d. Crane Picks & Critical Lifts (Refer to section 3.10 & 3.11).....Qualified
   e. Demolition (Refer to section 3.12).....Qualified
   f. Electrician (live circuits) (Refer to section 3.13).....Qualified
   g. Explosives (Refer to section 3.17).....Licensed
   h. Fall Protection (Refer to section 3.18).....Competent and Qualified
   i. Ladders (Refer to section 3.30).....Qualified
   j. Lead Abatement (Refer to section 3.31).....Supervisor
   k. Pile Driving (Refer to section 3.36).....Competent
   l. Powder Actuated Tools (Refer to section 3.37).....Qualified
   m. Scaffold (Refer to section 3.40).....Competent
   n. Silica and Dust Exposure Protection (Refer to section 3.41).....Competent
   o. Steel Erection (Refer to section 3.42).....Competent
   p. Trench and Excavation (Refer to section 3.45).....Competent
8. Site Specific Safety Plan (**SSSP**) (Refer to section 2.1.B)
   a. Communicates how the work will be done safely taking into consideration personnel, inspectors, visitors, and the general public (e.g. patients, faculty, and pedestrians). This plan shall include, but not necessarily be limited to:
      i. Confined Space .....(Refer to section 3.8)
      ii. Crane Picks and Critical Lifts .....(Refer to section 3.10 & 3.11)
      iii. Demolition .....Refer to section 3.12)
      iv. Explosives.....(Refer to section 3.17)
      v. Fall Protection.....(Refer to section 3.18)
      vi. Job Hazard Analysis (JHA) .....(Refer to section 2.4)
      vii. Lead Abatement.....(Refer to section 3.31)
      viii. Lockout/Tagout (LOTO).....(Refer to section 3.33)

ix. Precast, Pre-fabricated Concrete, Tilt-up Panels.....(Refer to section 3.38)
x. Respirator Protection .....(Refer to section 3.39)
xi. Scaffold.....(Refer to section 3.40)
xii. Silica and Dust Exposure Protection.....(Refer to section 3.41)
xiii. Traffic Control, Flagging, Operations and Plate Bridging .(Refer to section 3.44)
xiv. Trench and Excavations (20' or greater).....(Refer to section 3.45)

2.3 Project Safety Orientation and Training

A. Personnel must attend a project site safety orientation conducted by the Construction Manager before personnel starts.
   1. During the orientation, Contractor shall provide a copy of the appropriate required equipment certification and/or documented training as noted in 2.2.A.6.

B. Contractor is responsible to advise the Construction Manager of new personnel on the project site and coordinate project site safety orientation prior to the starting work.

2.4 Job Hazard Analysis (JHA)

A. Developed by the Contractor and/or its Subcontractor for critical activities identified by Contractor, Subcontractor , Construction Manager, and/or Owner. This would include, but not limited to:

Personal fall arrest systems	Crane picks (74% or less of crane capacity)	Lead abatement
Live electrical work	Crane picks (75% or greater of crane capacity)	Use of explosives
Trench/Excavations (5ft or deeper)	Tilt-up	Work on or adjacent to road ways
Confined space	Asbestos abatement	Helicopter picks

B. The JHA's are to be completed by the Contractor's supervisor familiar with the work activity to be performed.

1. The JHA will break down the work activity into key steps, identify the hazards associated with each step, and the controls to either eliminate, avoid and/or protect against potential accident.
2. Prior to commencing the work activity, the Contractor's supervisor will review the completed JHA with personnel performing the work activity.
3. Refer to Exhibit "C.2" for the form.

C. The JHA's will be kept by the Contractor for future reference and a copy of the JHA will be submitted to Construction Manager.

2.5 Pre-shift Meeting

A. A pre-shift production and safety meeting shall be conducted at the start of each shift.
   1. Refer to Exhibit "C.3" for the form.

B. These meetings shall:
   1. Review production activities for the shift.
   2. Review safety activities that are a component of the production activities.

C. The meeting at a minimum to focus on the following:
   1. Tasks for the shift.
      a. Applicable Job Hazard Analysis' (JHA's).
      2. Tools and equipment needed for those tasks.
   3. Materials needed for those tasks.
   4. Proper material handling techniques.
   5. Safe work procedures to perform those tasks.
   6. PPE needed to safely perform those tasks.
   7. Other pertinent information.
   8. Questions from personnel.

2.6 Injury and Incident Reporting

A. In the event of an Injury or incident, notify Construction Manager's Project Superintendent immediately. This includes any member of the general public, third party, and/or property damage.
   1. A detailed written report is to be furnished within **twenty-four (24) hours** of the injury or incident and shall include the following:
      a. Copies of all reports of any injury or incident involving other people (e.g. general public) or property damage caused by their actions.
      b. Signed statements from witnesses of their observations. Witness statements shall contain the name and permanent address of the witness.
      c. Recommendations to prevent recurrence of the injury or incident.
      d. How the report will be communicated to all personnel (e.g. tailgate meeting).
         i. Submit to Construction Manager**,** sign-in sheet, the same day they are conducted.

B. Notify Construction Manager's Project Superintendent the same day of any "near-miss" incidents.

2.7 Safety Meetings

A. Weekly safety meetings are to be conducted in compliance with Cal/OSHA standards, which address the specific hazards associated with their trade. Provide a copy of attendees with their signature along with the meeting minutes to Construction Manager weekly.

B. A Superintendent and/or Foreman shall be present at all Construction Manager scheduled safety/coordination meetings.

C. All Contractors will attend any meeting, such as an "all hands safety meeting", scheduled by Construction Manager related to safety.

2.8 Safety Inspections

A. Contractor shall designate a project site safety representative (e.g. Superintendent, Foreman), who shall conduct and document a **safety inspection** of their work areas and submit a copy to Construction Manager the same day the inspection was performed. Safety inspections are to be conducted daily and more frequently if necessary. Any conditions that may affect the safety of persons or property will be noted in writing for correction by the creating Contractor.

2.9 Disciplinary Policy and Enforcement

A. A plan for disciplinary action for violations of known safety requirements shall be part of the Contractor's IIPP.

B. This program is the minimum safety standards established for this project site and is not intended to take the place of a Contractor's Disciplinary Policy.

C. Construction Manager reserves the right to stop Contractor's work if Construction Manager believes Contractor is not performing their work in compliance with any applicable safety laws or regulations or agreed upon safety action plan/program (e.g. JHA, Crane pick plan). The work activity will cease until corrective action is taken by the Contractor. If Contractor fails to take corrective action, Construction Manager, in its discretion, shall have the right, but not the obligation, to take corrective action and to charge the cost and/or expense thereof against Contractor.

D. The Contractor agrees to enforce compliance with the following disciplinary actions as a result of committing a safety violation:

1. Action Level One (1) – If Construction Manager observes that Contractor has failed to comply with any safety requirements applicable to the work, Construction Manager will have the right, but not the obligation, to issue a written Safety Notice to the Contractor.
2. Action Level Two (2) – If an observed non-compliance with safety requirements is not corrected by Action Level One, or if the Contractor repeatedly fails to comply with the safety requirements applicable to the project site, Construction Manager shall have the right, but not the obligation, to issue a second written Safety Notice to the Contractor and it's surety.
    a. The Contractor may not resume work until Construction Manager and the Contractor's reputed Executive in charge, such as its President or Operations Manager, have met and the Contractor has demonstrated that it is prepared and able to take specific and adequate corrective actions.
    b. Construction Manager may, in the exercise of its sole discretion, require of Contractor to include in their corrective actions, but are not limited to, the following:
        i. Removal of certain Contractor or subcontractor personnel from the project site.
        ii. Alteration of the Contractor's or subcontractor's job procedures.
        iii. The Contractor shall not resume work until proposed corrective actions are reviewed by Construction Manager and has agreed to the work proceeding. Construction Manager will document the meeting results in the form of meetingminutes, a copy of which will be provided to the Contractor and maintained at the project site.
3. Action Level Three (3) – If Action Levels One and/or Two do not result in the Contractor's performance being brought into compliance with applicable safety requirements, then other actions, including, without limitation, contract termination may result.
4. Nothing stated under 2.9 (above) shall be interpreted as creating or implying any obligation on the part of the Owner or Construction Manager to issue any notices,

whether formal or informal, to Contractor in the event of an incident or of circumstances involving the risk of an incident. Notices issued to Contractor, whether or not in the forms suggested above, shall be complied with by Contractor. Nothing stated herein shall be interpreted as limiting any right's or remedies to the exercise of procedures set forth in this section.

5. **IMMINENT DANGER** (any conditions or practices in any place of employment which are such that a danger exists which could reasonably be expected to cause death or serious physical harm) – Any imminent danger type safety violations shall result in **immediate suspension** and/or permanent removal. Any personal removed is not permitted on any Construction Manager's projects.

PART 3 – SAFETY STANDARDS

3.1 Air Monitoring Equipment (see Confined Space Entry for additional requirements)

A. Appropriate multi gas air monitoring equipment shall be used to test confined spaces, utility holes, cable vaults, pits, and similar spaces for flammable, toxic, or oxygen deficient atmospheres. The exposing Contractor(s) is (are) responsible for the provision, maintenance, calibration and testing of equipment.

B. Air monitoring equipment must be tested and calibrated as required by the manufacturer before each use.

C. Prior to use, personnel must be trained per manufacturer requirements on the use, limitations and alarm modes of each air-testing device that is (are) used.

D. Personnel must immediately leave work area whenever an equipment alarm sounds due to:
   1. Low or high oxygen level (acceptable range is 19.5% - 23% oxygen).
   2. Combustible gas above 10% lower explosive limit (LEL).
   3. Hydrogen Sulfide reaches permissible exposure limit of 10 ppm, or other toxic gas level reading.
   4. Sensor failure.
   5. Low battery alarm.

3.2 Asbestos

A. Abatement Contractor must be licensed in accordance with applicable State, Federal, and Local requirements to perform removal and disposal of asbestos containing material and encapsulation.

B. The Contractor shall ensure personnel are trained in asbestos awareness to identify ACM and PACM.

C. Upon discovery of any asbestos containing materials (ACM) or presumed asbestos containing materials (PACM), Contractor shall stop work in such areas and notify Construction Manager.

D. All asbestos abatement and removal work must follow all regulations of Cal/OSHA, the Environmental Protection Agency (EPA), and the applicable Air Quality Management District (AQMD).

E. Abatement Contractor's Competent Person shall:
   1. Conduct an exposure assessment immediately before or at the initiation of the operation to ascertain expected exposures during that operation or workplace.
   2. Shall make frequent and regular inspections:
      a. Class I jobs, project site inspections shall be made at least once during each work shift, and at any time when requested by personnel.
      b. Class II, III and IV jobs, project site inspections shall be made at intervals sufficient to

assess whether conditions have changed and at any time when requested by personnel.

3. For Class I or II asbestos work, perform or supervise the following duties, as applicable:
   a. Set-up regulated area, enclosures, or other containments; ensure integrity of containments, control entry/exit from enclosure or area.
   b. Supervise personnel exposure monitoring.
   c. Personnel must wear respirators and protective clothing.
   d. Ensure personnel set up, use and remove engineering controls, including personal protective equipment, hygiene facilities, decontamination procedures, proper work practices, and notification requirements.

3.3 Barricades and Signage

A. Temporary perimeter fencing may be provided by the Construction Manager. Contractor to refer to logistics plan, subcontract agreement or any other contract document that may communicate the limits of perimeter fencing being provided by the Construction Manager. Contractor to provide the following as a minimum:
   1. Barricades are required around excavations, holes or openings in floor or roof areas, edges of roofs and elevated platforms, overhead work and overhead utilities, and wherever necessary to warn or protect against falling in, through or off. Barricades must be suitable for the area of use.
   2. To ensure the safety of the general public, Contractor shall provide and maintain adequate protection, such as chain-link fences, gates and barricades, to separate work areas from areas outside project site limits. Barricades must be suitable for the area of use.
   3. Barricades may also be used to isolate people from work activities as required by the activity, potential hazards created by the activity, or the location of the activity. Barricades must be suitable for the area of use.

B. Chain-link Fencing:
   1. Shall be free from barbs, excessive galvanizing material that may form sharp projections (icicles), or other projections that may cause injury.
   2. Must be in good repair and installed to ensure stability of the fencing from being knocked over.
   3. Must be installed/braced to prevent being blown over during windy conditions.
   4. Base supports shall be installed/placed to eliminate tripping hazards when fencing is placed adjacent to sidewalks and walkways.

C. Contractor shall notify Construction Manager and obtain approval to remove any barricade (e.g. guardrails), and other perimeter protection (e.g. fencing) and/or floor opening covers.

D. Contractor shall notify those affected by the removal of any barricade, perimeter protection and/or floor opening cover, and will be solely responsible, including providing additional temporary safety measures for area and those in the area during the period of temporary removal.

E. Contractor shall immediately return to proper condition and maintenance, any barricade, perimeter protection and/or floor opening cover removed because of their work.

F. Contractor shall provide appropriate signs (e.g. Powder Actuated Tool in Use).

3.4 Burning, Welding and Hot Work

A. Hot work includes, but is not limited to, the following activities: grinding, cutting, welding, burning, brazing or soldering, heating, hot air welding or other operations that generate heat, flames, arcs, sparks or other source of ignition.

B. Contractor shall have a written Hot Work Program for fire prevention during hot work activities.

C. Contractor shall procure and post all permits necessary for hot work as required by the Fire Marshal or Fire Code having jurisdiction over the project site. The Contractor shall attain a copy of all permits before starting any work.

D. Prior to performing hot work, evaluate the following: type of hot work to be performed, project site preparation, atmospheric conditions, use of appropriate personal protective equipment, and firefighting equipment.

E. Project site preparation should include a survey for the following: combustible materials; hazards posed by heat transfer; flammable, corrosive, or toxic residues; equipment linings, appropriate lockout/tagout applications, and housekeeping.

F. Contractor's Competent Person shall:
   1. Notify Construction Manager of hot work activity.
   2. Inspect the work area(s) for safety factors and assure fire extinguishers or other firefighting equipment are present.
   3. Attach the hot work permit to the fire extinguisher or other fire fighting equipment that will be present during the activity.

G. Fire extinguishers rated at least 10B:C, and/or other fire protection equipment are to be provided by the Contractor for each hot work operation in accordance to Cal/OSHA and local Fire Marshal / Fire Code requirements.
   1. This equipment shall be located on the same elevation(s) of the work and within 25 feet of the hot work activity.

3.5 Clothing and Personal Protective Equipment (PPE)

A. Without limitations to any other requirements of applicable laws or the contract documents, Contractor and subcontractor are responsible for providing all Personal Protective Equipment (PPE) for their personnel (e.g. hard hats, safety glasses, face shield, harness, lanyard, N-95 particulate mask, respirator, high visibility vest, and hearing protection).

B. PPE must be properly fitted and suitable for protection from existing hazards.

C. Provide adequate training for the use of PPE that personnel will wear and/or use as required by applicable Cal/OSHA standards.

D. The minimum PPE requirements of the project:
   1. **Hard hats** (ANSI Z89.1 or equivalent) shall be worn at all times (100%) while on the construction project site, except in the break areas and construction offices.
      a. Welders must wear a hard hat when using welding hoods.
      b. No metal hard hats, "cowboy" style hard hats, or bump caps allowed.
   2. **Safety glasses** (ANSI Z87.1 or equivalent) that meet Cal/OSHA standards for the exposure shall be worn at all times (100%) while on the construction project site, except in the designated break areas and construction offices. This includes those with prescription eye wear.
   3. **High visibility vests** (Class 2 vest) required; safety orange, green or yellow, shall be worn at all times (100%) and must be the outermost garment while on the construction project site, except in the break areas and construction offices.
      a. ANSI 107-2010 **Class 3 vests** are required for personnel with high task loads in a wide range of weather conditions and where traffic exceeds 50 mph. These work activities could include but not limited to all personnel, vehicle operators, utility personnel, survey crews, emergency responders, and railway.
   4. **Construction work boots** (ANSI Z41.1 or equivalent) shall be worn at all times during

the course of all construction activities. They must be substantial leather boots with good rubber soles.

a. Additional foot protection (e.g. metatarsal guards, steel toe) may be required if there is a danger of foot injury due to falling objects, rolling objects, or chemical exposure (e.g. chemical resistant type rubber boot). Metatarsal guards are required when operating a wacker, jack hammer, and jumping jack tamper.
b. Loafers, sandals, tennis shoes, running shoes, or open-toed shoes are not proper work shoes and are not permitted.

5. **Long Pants** are required at all times. No sweat pants.
6. **Shirts** must have a minimum four (4) inch sleeve length over shoulders and shall be worn at all times.
   a. Tank tops, cut-offs, net shirts, sleeveless shirts are prohibited.
   b. No questionable, profanity and/or vulgar images, words or logos are allowed on shirts or other visible clothing apparel.
7. **Hand Protection** may be required if there is a danger to hand injury due to cuts, burns, electrical current, or harmful physical or chemical agents. Protective gloves are required when working with wet concrete.
8. **Hearing Protection** devices shall be used to protect from noise levels which exceed 90dBA.
9. **Face Protection** may be required when:
   a. There is an inherent risk from flying particles or injurious chemicals.
   b. Cutting, grinding or sanding of finished concrete or metals.
10. **Respiratory Protection** may be required if engineering or operational controls are not feasible for limiting harmful exposure to airborne contaminants.

3.6 Compressed Gas Cylinders, Gas Cutting and Welding

A. All cylinders must be secured and transported in an upright position at all times.

B. Oxygen and fuel gas cylinders must be separated at least 20 feet, or enclosed with a 5 foot high barrier with a ½ hour fire rating when in storage and placed away from potential contact that may rupture the tanks.

C. Cylinder valves shall be turned to the off position if left inactive for 30 minutes or longer.

D. Cylinders designed for valve protection caps must have the valve protection cap installed when in storage or when being transported.

E. Cylinders, hoses, and fittings shall be checked for leaks and damage on a regular basis.

F. Cylinders must be labeled as to the nature of their contents per NFPA requirements and the OSHA Hazard Communication Standards.

G. Cylinders shall not be taken into confined spaces.

H. Cylinder storage areas shall have appropriate warning signage posted.

I. Appropriate fire-fighting equipment must be provided for each cylinder storage area.

J. Torches and hoses shall not be left connected to cylinders overnight.

K. Torches and hoses shall not be stored in unventilated gang boxes or storage containers.

L. Flashback arrestors and check valves shall be installed in accordance with manufacturer's instruction on all oxygen-fuel torch sets.

3.7 Concrete and Masonry Construction

A. The creating Contractor must guard all protruding reinforcing steel to eliminate impalement hazards.

B. Protective gloves are required when there is skin contact with wet concrete.

C. Concrete – Structural Concrete
   1. Do not remove any forms or shoring until a determination has been made by the testing lab that the concrete has gained sufficient strength to support its own weight and that of superimposed loads.
   2. Loads shall not be placed on newly constructed concrete structures or fill on decks until the concrete has reached its specified compression strength unless otherwise accepted by the structural engineer of record. Contractor shall be the point of contact for information regarding this requirement.
   3. Where concrete shoring/reshoring is employed, a shoring/reshoring plan specific shall be available for review at the project site.
      a. Deviations from the shoring/reshoring plan will require the issuance of a new shoring/reshoring plan.
      b. The addition of superimposed loads on the floor (such as equipment and/or materials) that are not listed in the reshoring plan shall be construed as a deviation from the plan.

D. Concrete – Pouring and Pumping Operations
   1. Permanent and temporary power lines shall be identified prior to the start of a concrete pour. Appropriate safeguards shall be implemented for the pumping, pouring and finishing operations.
   2. A project site traffic control plan shall be established for concrete truck traffic. Trained Spotters and Flaggers shall be used as necessary for public and personnel safety.
   3. Those involved in pouring and finishing activities shall have appropriate personal protection equipment (PPE), including gloves, mud boots, over boots, rubber boots, and eye protection.
   4. Concrete truck washout receptacles shall be in an area acceptable to Construction Manager and located out of vehicular and pedestrian travel areas.
   5. Diapers or equivalent shall be provided for the pump and concrete trucks when the truck to pump transfer occurs in a public street or other public area.
   6. Provide a project site logistics plan for each pump location that includes provisions for concrete truck traffic routing and control, as well as pedestrian traffic routing and control (if applicable).

E. Coring, Cutting, Chipping, Drilling, Grinding, Profiling, and Sanding
   1. All areas of work are to be reviewed for possible impact to any existing conditions.
      a. Consider what is or may be on the other side of concrete that is being cored, cut or chipped (occupied area, system piping, embedded anchors, structural member, and soil).
      b. Consider what is or may be embedded in the concrete (conduit, reinforcing steel).
   2. If it is determined, there is any potential of embedded items in the concrete, a sub- surface investigation must be performed by the Contractor (e.g. pacometer, ferro- scan, x-ray, and ground-penetrating radar). A twelve foot (12 ft) area on either side of the planned area shall be scanned.
   3. ANSI-Approved face shield and eye protection and the appropriate respiratory protection is required.
   4. Dry cutting, coring, chipping, drilling, grinding, profiling, and profiling of concrete or masonry is prohibited.
   5. Wet method or local exhaust ventilation is required to control respirable crystalline silica, dust and airborne particulates. Additional requirements can be found in section 3.38 –

Silica and Dust Exposure Protection.

F. Masonry Construction
   1. Masonry walls shall be braced and/or supported as required by Cal/OSHA and/or local requirements.
   2. Clear Zone - Unauthorized personnel shall be prohibited from entering the work area.

3.8 Confined Space (See Air Monitoring for Additional Requirements)

A. Contractor shall submit a written Program addressing confined space entry and rescue procedure.
   1. Must abide by the applicable Cal/OSHA standards for all confined space entry operations and furnish all appropriate personnel, equipment, and support.
   2. Obtain permits required for confined space entry programs. Submit a copy to Construction Manager for record.

B. Contractor shall ensure that a Competent Person identifies all confined spaces in which their personnel may enter.

C. All confined spaces will be treated as permit required confined space until proven otherwise by the Competent Person.

D. Those entering must be trained in the hazards of confined space work, including operating and rescue procedures, the use of respiratory equipment, and instructions as to the hazards they may encounter.

E. Provide all necessary entry-rescue equipment required for all entries into confined spaces (e.g. tripod, full body harness and lifeline or equivalent) as required by the applicable Standard. Wrist straps may be used in designated areas instead of full body harness.

F. Prior to entry into a confined space, ensure all lines that may convey flammable, injurious, or incapacitating substances into the space are disconnected, blinded, or blocked off by other positive means in accordance with Lockout/Tagout (LOTO) regulations.

G. Prior to entry into confined space, test the air with an appropriate device or method for: (1) Oxygen content, (2) Flammable gases and vapors, and (3) Potential toxic air contaminants. A written record shall be made and kept at the project site.

H. The confined space shall be emptied, flushed, or otherwise purged of flammable or injurious substances to the extent feasible. Proper ventilation equipment is required.

I. Whenever an atmosphere free of dangerous air contamination and/or oxygen deficiency cannot be ensured, the Contractor shall provide NIOSH approved respiratory equipment to personnel who are involved in a comprehensive respiratory protection program in accordance with applicable Cal/OSHA standards.

J. Where standby personnel are required, they must have a valid certificate in First Aid and CPR training from the American Red Cross, or equivalent training verified by documentary evidence.

K. Visual contact or two-way radio communication must be available at all times.

L. Must establish a means of communication with outside emergency services.
   1. Provide a 2-way form of communication:
      a. from inside to outside and
      b. outside to 911.
   2. This procedure must be made available to all those that enter and/or those on standby.

3.9 Connections to Utilities

A. The Contractor shall not, nor allow any subcontractor to make any temporary service connections to electrical, water, air or steam utilities without prior approval of Construction Manager.

B. Temporary connections shall comply with all applicable Federal, State, and local regulations.

C. Temporary connections shall be inspected on a regular basis.

3.10 Crane Pick (Cranes, Boom Trucks and Rigging)

A. A written "Lift Pick" plan for all crane picks regardless of the capacity must be submitted to Construction Manager. The following documents must be included:
   1. Copies of the Crane Certifications (annual and quadrennial).
   2. Copy of the Crane Operator's Certification.
   3. The name and supporting documents for qualified riggers and signal persons, which will be provided by the Contractor.
   4. Refer to Exhibit "C.4" – "Lift Pick & Critical Lift Pick" for the form.

B. Cranes and derricks exceeding three (3) tons rated capacity, and their accessory gear shall not be used until the employer has ascertained that such equipment has been certified as evidence by current and valid documents attesting to compliance with the following:
   1. Test and examinations shall be conducted annually by a currently licensed certificating agency or designee in the certificating agency license, and a certificate shall be issued by the certificating agency.
   2. Current annual and quadrennial inspection certificates shall be maintained on each crane.

C. A licensed certificating agency or designee in the certificating agency license shall re-inspect any crane that is involved in any incident or is damaged during set-up or operation, and a new certificate of inspection issued prior to being returned to service.

D. Only operators authorized by the Contractor that are trained and certified in the safe operation of cranes or hoisting apparatus shall be permitted to operate such equipment.
   1. Operators shall have valid evidence of current Licensing or Certification in accordance with State and Local requirements.
   2. Operators not having such evidence shall not be permitted to operate applicable machinery.

E. Outriggers shall be fully extended during all lifts. If geometry factors prevent fully extending the outriggers, they need to be extended as far as possible and "off the rubber" load charts limits shall be used.

F. Picks "off the rubber" will not be permitted, regardless of load.

G. When required by the manufacturer's or certifying agent's instructions, outriggers shall be set so that wheels or crawler tracks within the boundary of the outriggers shall be relieved of all weight by the outrigger jacks or blocking.

H. Plates, pads or mats shall be used under the outriggers or crawlers of all cranes and shall be of suitable material and size to support the crane on the surface that it is set upon.

I. All mobile cranes having either a maximum rated boom length exceeding 200 feet or a maximum rated capacity exceeding 50 tons shall be equipped with a load indicating device or a load movement device.

J. Any crane that meets the following, must file a Notice of Proposed Construction or Alteration (Form 7460-2) with the FAA for approval:

1. Greater than 200 feet in height.
2. Within 20,000 feet of a public and/or military airport and exceeds 100:1 (H:V) in surface elevation.

K. Cranes shall be equipped with a boom angle or a boom radius indicator and clearly legible load chart in clear view from the Operator's position.

L. An effective, audible warning and operating signal device (such as a horn) shall be provided on the outside of the crane. The controls shall be in easy reach of the Operator.

M. The Qualified Person shall:
1. Visually inspects the crane, derrick or hoist's controls, rigging and operating mechanism prior to the first operation of any work shift.
2. Records daily inspections by the operator or other Qualified Person shall be maintained on the crane and must be available for review upon request.
3. Adjustments and repairs to the crane.
4. Where the weight of the load being handled is unknown and may approach the rated capacity, shall determine the magnitude of the load unless the crane is equipped with a load-indicating device.

N. The Contractor responsible for the hosting activity shall provide a Qualified Person to direct the lift. The Qualified Person shall see that:
1. The crane is properly leveled for the work being performed and blocked where necessary.
2. The load is well secured and properly balanced in the sling or lifting device before it is lifted more than a few inches.

O. A designated person shall monitor the clearance between crane booms, load lines, and loads, and power lines and alert the Operator when necessary.
1. For power lines rated 50kV or less, minimum clearance between the lines and any part of the crane or load is 10 feet.
2. Power lines rated over 50kV, minimum clearance between the lines and any part of the crane or load shall be at least 20 feet. If 20 feet is not achievable, the Contractor shall schedule a formal meeting with Construction Manager to review clearance tables, de-energize power, and alternatives.

P. A qualified signal person shall be provided when the point of operation is not in full and in direct view of the operator unless a signaling or control device is provided. Only one person shall be permitted to give signals to the operator.

Q. A fire extinguisher of not less than 10-B:C rating shall be kept in serviceable condition and readily accessible to the Operator.

R. Operations shall be conducted and the job controlled in a manner to prevent loads from being passed directly over anyone, occupied workspaces, or occupied passageways.

S. Any personnel involved in the operation may give a "stop" signal if such a signal is warranted.

T. A legible chart depicting and explaining the system of crane signals used shall be conspicuously posted in the vicinity of the hoisting operation.

U. No one shall be permitted to ride on loads, hooks, or slings of any derrick, hoist, or crane.

V. Swing radius protection shall be provided where a rotating crane is positioned to operate in areas where people may be caught between rotating parts and fixed objects or non-rotating

crane components.

W. Tag lines, restrain lines, or guide ropes shall be used on all loads except where their use presents a greater hazard. Such lines or ropes should be insulated to prevent shock, and shall not contain knots or splices that may snag on an object.

X. Cranes, hoists, or derricks shall not be left unattended while the load is suspended.

Y. Before leaving the crane unattended, the Operator shall:
   1. Land or properly secure any attached load.
   2. Disengage clutch (if applicable).
   3. Set travel, swing, boom brakes, and other locking devices unless otherwise specified by the certifying agents.
   4. Put controls in the "off" position.
   5. Stop the engine.
   6. Secure the crane against accidental travel.

Z. Rigging, Slings, and Hooks
   1. Hoisting hooks shall be of the safety latch-type.
   2. Crane hooks with cracks or with deformation of throat opening more than 15% in excess of the normal opening, or more than 10-degrees twist from plane of unbent hook, shall be removed from service.
   3. Ropes shall be inspected for proper lubrication, excessive wear, broken strands, and proper weaving.
   4. Each day before use, slings and all fastening and attachments shall be inspected for damage or defects by a Qualified Person. Any wears showing deformation or damage will be permanently removed.
   5. "Free Rigging" (lifting from forks of forklift without manufacturers engineering attachment) will not be permitted for any reason.
   6. In order to determine proper time for replacement, a continuing inspection record shall be maintained for hoisting ropes. Conditions such as the following shall be reason for replacement:
      a. In running ropes, 6 randomly distributed broken wire in one rope lay, or 3 broken wires in one strand in one lay.
      b. Wear of 1/3 the diameter of the outside individual wires.
      c. Kinking, crushing, bird caging, or other damage resulting in distortion of the rope structure.
      d. In stranding ropes, more than 2 broken wires in one lay in sections beyond end connections or more than one broken wire at an end connection.
      e. Reduction of rope diameter below nominal diameter due to loss of core support, internal or external corrosion, or wear of outside wires.
   7. Fixtures are usually attached to wire rope by the use of wire rope clips. The clips must be attached with the inside curve of the U-bolt against the dead, or short end of the wire rope, and flat clip (saddle) against the live, or long end of the wire rope.
   8. Slings shall have permanently affixed tags stating the:
      a. Manufacturer's name or trademark.
      b. Rated capacity.

AA. Multiple lift shall only be performed if the following criteria are met:
   1. A multiple lift rigging assembly is used.
   2. A maximum of five members are hoisted per lift.
   3. Rigging procedures shall prevent hazardous contact between the structural steel members being hoisted, adjacent structures or anyone.

4. Only beams and similar structural members are lifted.
5. Anyone engaged in the multiple lift have been trained in these procedures in accordance with Cal/OSHA.
6. No crane is permitted to be used for a multiple lift where such use is contrary to the manufacturer's specifications and limitations.
7. Components of the multiple lift rigging assembly shall be specifically designed and assembled to support the maximum capacity for the total assembly and for each individual attachment point. This capacity, certified by the manufacturer, shall be based on the manufacturer's specifications with a 5 to 1 safety factor for all components.
8. Multiple lift rigging assembly shall be rigged with members:
    a. Attached at their center of gravity and maintained reasonably level.
    b. Rigged from top down.
    c. Rigged at least 7 feet apart.
    d. The members on the multiple lift rigging assembly shall be set from the bottom up.

3.11 Critical Lift

A. Lifts that exceed 75% of the rated capacity of the crane or derrick, or requires the use of more than one crane, derrick, or lifting device; or is deemed a critical lift by the Owner or Construction Manager by reason of potential negative consequences to safety, structure, or schedule; in addition to the above requires the following:

1. A Critical Lift Plan shall be prepared by a Qualified Person. The Qualified Person preparing the plan may be the crane operator, lift supervisor, or rigger and a copy provided to the Contractor(s) and Construction Manager.
    a. The crane operator, lift supervisor, and rigger shall participate in the preparation of the plan.
    b. The plan shall be reviewed by, and signed by, all personnel involved with the lift.
    c. The plan shall specify the exact size and weight of the load to be lifted and all crane and rigging components that add to the weight. The manufacturer's maximum load limits for the entire range of the lift as listed in the load charts shall also be specified.
    d. The plan shall specify the lift geometry and procedures, including the crane position, height of the lift, the load radius, and the boom length and angle, for the entire range of the lift.
    e. The plan shall designate the crane operator, lift supervisor, and rigger, and state their qualifications.
    f. The plan will include a rigging plan that shows the lift points and describes rigging procedures and hardware requirements.
    g. The plan will describe the ground conditions, outrigger or crawler track requirements, and, if necessary, the design of mats necessary to achieve a level, stable foundation of sufficient bearing and capacity for the lift.
    h. The plan will list environmental conditions under which lift operations are to be stopped.
    i. The plan will specify coordination and communication requirements for the lift operation.
    j. For tandem or tailing crane lifts, the plan will specify the make and model of the cranes, the line, boom and swing speeds, and requirements for an equalizer beam.
2. Refer to Exhibit "C.4" – "Lift Pick & Critical Lift Pick" for the form.
3. Critical lift plans shall be submitted to the Construction Manager.

3.12 Demolition

A. Demolition work shall at all times be under the immediate supervision of a Qualified Person with the authority to secure maximum safety for personnel engaged in demolition work.

B. Obtain AQMD permit and forward a copy to Construction Manager.

C. Prior to permitting and the start of demolition operations, the Qualified Person shall make a

survey of the structure to determine the condition of the framing, floors, and walls, and the possibility of an unplanned collapse of any portion of the structure. Any adjacent structure where personnel may be exposed shall also be similarly checked.

1. The survey shall be in written form, kept on the project site and submitted to Construction Manager.

D. Utility companies shall be notified and all utility services shut off, capped, or otherwise controlled, at the building or curb line before starting demolition. The Contractor is responsible to verify that these actions have been taken.
   1. The Contractor shall develop an Emergency Call List for all known utility owners prior to the start of demolition activities.
   2. A project site plan shall be marked up to show the locations of known utilities, and the nearest identified shut-off valves/controls. Construction Manager shall be provided a copy. Verify that the shut-off valves/controls are working properly prior to work beginning.

E. Confirm existing alarm systems have been identified and taken out of service prior to commencing demolition operations. Alarm services shall be notified that the alarm will be taken out of service before taking the system out of service.

F. Determine any type of hazardous chemicals, gases, explosives, flammable materials, or similarly dangerous substances have been used in any pipes, tanks, or other equipment on the property.

G. When the presence of hazardous substances is apparent or suspected, Contractor shall stop work and notify Construction Manager. Material such as but not limited to:
   1. Pipe-covering insulation, steel beam and column fire protection, HVAC duct, VCT, plaster, acoustical tile and flooring adhesive shall be surveyed for asbestos.
   2. Paint and ceramic tile shall be surveyed for lead.

H. During demolition, continuing inspections shall be made as the work progresses to detect hazards resulting from weakened, load burdened, or deteriorated floors or walls or loosened materials.
   1. Ensure that floor load limits are not exceeded during demolition operations.
   2. Disperse demolition equipment throughout the structure and remove demolished materials to prevent excessive loads on supporting walls, floors or framing.

I. Adequate dust control measures shall be provided during demolition, stockpiling and loading operations.

J. Walking across exposed floor joists, steel beams, or girders is prohibited.

K. Provide passage for others around the area of demolition. Conduct operations to prevent damage to adjacent buildings, structures, other facilities, and people.

L. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement or collapse of structures to be demolished and to adjacent facilities.

M. Demolish concrete and masonry in sections. Use bracing and shoring to prevent collapse.

3.13 Electrical

A. Electrical work on live circuits will be only permitted by a qualified electrician. NFPA 70E arc flash requirements must be followed.

B. All temporary power panels shall have covers installed at all times by the Contractor. All

circuits must be clearly labeled.

C. Supply ground fault circuit interrupters (GFCI) for all temporary electrical wiring cords and equipment.
   1. GFCI shall be tested in accordance with manufacturer's requirements. Logs shall be maintained of all such testing.
   2. GFCI with an automatic reset feature are not permitted on the project site.
   3. Assured grounding may be used in conjunction with GFCI protection but is not permitted as an alternative to GFCI protection.
   4. Provide monthly inspections.

D. Temporary lighting shall not be suspended by its' extension/power cord.

E. Temporary lighting must be equipped with guards to prevent contact with the bulb.

F. Romex cable will not be permitted to be used as electrical cord.

G. Contractor shall ensure that all temporary power cords are at least 12awg heavy-duty construction grade, are in good condition, and have correct voltage and amperage rating.

H. When feasible, all temporary power cords shall be secured above the floor to avoid trip hazards in walking and working surface areas.

I. Outdoor cables must be protected from damage from pedestrian and vehicle traffic.

J. Ground pins shall not be removed from electrical cords.

K. Damaged or defective tools and cords shall be removed from service.

L. Power tools must be double insulated or grounded properly and inspected prior to use.

M. Properly Lockout /Tagout (LOTO) any equipment within the Contractor's responsibility. Control of the Lockout/Tagout is also the Contractor's responsibility.

N. The Contractor shall coordinate instances that require multi- Contractor Lockout/Tagout activities.

3.14 Elevating Work Platforms and Aerial Devices (e.g. Boom-lift, Scissor-lift)

A. Only authorized and trained personnel shall operate an aerial device or elevating work platform. Training records shall be maintained on the project site for review.

B. All aerial devices or elevating work platforms will be subject to a comprehensive inspection. Aerial or elevating work platforms will need to be inspected daily before use. Noncompliant equipment will not be permitted.

C. Boom, basket, platform load limits specified by the manufacturer shall not be exceeded.

D. No one shall sit or climb on the edge of the basket or platform or use planks, ladders, guardrails or other devices to gain greater height.

E. No one shall work off of elevated work platforms or aerial devices when exposed to winds 30mph or greater.

F. Elevating Work Platforms:
   1. An elevated work platform is a device designated to elevate a platform in a substantially vertical axis (vertical tower, Scissor Lift).
   2. The railing protection shall be 42 inches high, plus or minus 3 inches, with a mid-rail at

the half-way height point. Where the guardrail is less than 39 inches high, an approved personal ANSI certified fall protection system shall be used.

3. Powered elevating work platforms shall have both upper and lower control devices. Controls shall be plainly marked as to their function and guarded to prevent accidental operation.
4. An emergency stopping device shall be provided at the upper controls of elevating work platforms.

G. Aerial Device
   1. An aerial device is any vehicle-mounted or self-propelled device, telescoping extendible or articulating, or both, which is primarily designed to position personnel.
   2. Belting off to an adjacent pole, structure, or equipment while working from an aerial device is not permitted.
   3. Lift controls shall be tested in accordance with the manufacturer's recommendations or instructions prior to use to determine that such controls are in safe working condition.
   4. Aerial baskets or platforms shall not be supported by adjacent structures when personnel is on the platform or in the baskets while in an elevated position.
   5. While in an elevated aerial device, personnel shall be secured to the identified anchorage point through the use of a full body harness and lanyard for fall protection.

3.15 Emergency Action / Evacuation

A. Contractor is obligated to notify the Construction Manager and the other Contractors if their work activities will have an impact on the project site emergency action plan.

3.16 Equipment / Tools

A. Contractor equipment and tools must be in proper working condition and routinely (e.g. daily or prior to use) inspected for defects and removed from use if found to be defective.

B. Any equipment or tool found to be damaged or defective must be removed from service and repaired before it can be returned to service.

C. Manufacturer's instructions shall be followed with respect to equipment/tool operation and training requirements.

D. Equipment is not to be used with loads that exceed the recommended rated capacity.

E. Contractor is to use only their equipment and tools, and not those of other Contractors, unless they are properly trained and authorized.

F. Tools and equipment are to be used for their designated purpose.

G. Tools and equipment are to be used only by trained and authorized personnel.

H. Proper guards or shields must be installed on all power tools before use. All guards must be manufactured by and/or approved by the manufacturer for that particular piece of equipment.

I. "Wedging" or "Pegging" guards on circular saws or other equipment, rendering them non- functional, is not permitted.

J. No internal combustion vehicle or machinery is to be operated inside a structure unless proper controls have been implemented to minimize carbon monoxide levels.

K. Tools and equipment must be properly stored, secured and located away from unauthorized access.

L. For pneumatic power tools, all air hoses exceeding ½ inch inside diameter shall have a safety device (commonly known as "OSHA valve" or "safety check valve") at the source of air supply or branch line origin (such as a manifold) to reduce pressure in case of hose failure.

M. Do not lift or lower portable electric tools by means of the power cord. Use a rope or handle.

3.17 Explosives

A. Blasting activities will be done in accordance with state, and local regulatory requirements.

B. Blaster must have all required federal, state, and local permits. A copy of the permits shall be forwarded to the Construction Manager. The actual permit shall be present on the jobsite during blasting operations.

C. Blaster must have a current valid California "Blaster's License" issued by Cal/OSHA. The license shall be physically present on the project site to accomplish the blasting operation and/or direct and supervise others in such operations.

D. Contractor to submit a written "Evaluation of potential rock blasting impacts and recommended practices" to Construction Manager.

E. Contractor to submit a written "Blasting plan" to Construction Manager, which would include, but may not be limited to, procedures for:
   1. Storage, handling, transportation, loading, and firing of explosives.
   2. Communication with authorities and landowners.
   3. Pre- and post- blast inspections.
   4. Mitigation controls for flying rocks, noise reduction, and misfires.
   5. Safety procedures (e.g. fire prevention, signs and flagmen, and warning signals).
   6. Mitigation of environmental impacts.
   7. Disposal of waste blast material.
   8. Blasting adjacent to existing overhead or underground utilities, roadways or trails, environmentally sensitive areas, farmlands, or areas with potential geologic hazards.

F. No smoking, open flames or other sources of ignition within 50 feet of any area where explosive materials are being handled, except devices necessary to ignite the fuses of set charges.

G. Empty boxes, paper and fiber packing materials which have previously contained high explosives shall not be used again for any other purpose. They shall be destroyed by burning at an isolated location outdoors, and no person shall be nearer than 100 feet after the burning has started.

H. Tamping poles or devices shall be made of wood or plastic materials manufactured for tamping explosives.

I. Loading shall not commence until all drilling is completed and drill holes are cleaned or blown out. When conditions justify simultaneous loading and drilling in the same area, such operations shall be separated as widely as practicable and in no case shall a drilling operation be closer than 50 feet to a hole being loaded.

J. All drill holes shall be sufficiently large to freely admit the insertion of the explosive materials.

K. No holes shall be loaded except those to be fired in the next round of blasting.

L. Use only lights specifically designated to be used within 50 feet of the loading area.

M. Loading operations shall be carried on with the smallest practical number of persons and explosive materials loading equipment present and no one but the loading crew, inspection personnel, and authorized supervisory personnel shall be allowed within 50 feet of the loading area.

N. Holes to be blasted shall be charged as near to blasting time as practical and such holes shall be blasted as soon as possible after charging has been completed.

O. Areas in which charged holes are awaiting firing shall be guarded or barricaded and posted or flagged against unauthorized entry.

P. When blasting under, or near overhead power lines, all loaded holes shall be covered with a nonconductive blasting mat anchored to prevent the mat or other material from being blown into the overhead lines.

Q. Drilling shall not be started until all remaining butts of old holes are examined for unexploded charges and if any are found, they shall be detonated or properly disposed of before other work proceeds.

R. The licensed blaster-in-charge shall fix the time of blasting.

S. Blasts are not to be fired until the licensed blaster-in-charge verifies the following:
   1. All surplus explosive materials are in a safe place,
   2. All security personnel at the blast area are in the proper location, and
   3. All personnel are either outside of the blast area or under sufficient cover.

T. Before adopting any system of electrical firing, the licensed blaster shall conduct a thorough survey for extraneous currents, and all dangerous currents shall be eliminated before any holes are loaded.

U. Blasts are not to be fired without a warning signal/procedure. The signals, which may be given by a siren, air horn, whistle or other device, shall be loud enough to be heard clearly in areas that could possibly be affected by the blast or flying rock from the blast.

V. Warning signals shall be given by the use of a compressed air whistle, a horn, lights or equivalent means, such as flaggers or voice warning and shall be clearly audible at the most distant point in the blast area. Where other than flagger or other visible method or voice warning is used, the following signals are recommended:

WARNING SIGNAL	5 minutes prior to the blast	A 1-minute series of long audible signals
BLASTING SIGNAL	1 minute prior to the blast	A series of short audible signals
ALL-CLEAR SIGNAL	Following inspection of the blast area	A prolonged audible signal

W. The “ALL CLEAR” signal shall not be given until the licensed blaster has made a thorough, visual inspection of the blast area for misfires.

X. Whenever blasting is being conducted in the area immediately adjacent to gas pipelines,

flammable liquid gas pipelines, electric, water, fire alarm, telephone, telegraph, and steam utilities, the licensed blaster shall notify the appropriate representatives of such pipelines or utilities at least 24 hours in advance of blasting, specifying the location and intended time of such blasting. Verbal notice shall be confirmed with written notice before the blast.

Y. After blasting, the blasting crew shall wait at least 5 minutes before returning to the point of blasting.

Z. If any misfires are found, or suspected to exist, they shall be reported to the person in charge. Steps shall be taken to eliminate all undetonated explosive materials.

AA. In case of a detonator misfire, the shot area shall be made safe under competent supervision by one of the following means after a 30-minute wait following electric or non-electric shock tube blasting, or a 60-minute wait following fuse cap blasting.

BB. No other work shall be performed in the danger area except that necessary to remove the hazard of the misfire. No other personnel except the licensed blaster and the necessary crew shall be in the danger area when a misfire hazard is being removed.

3.18 Fall Protection

A. 100% Fall Protection shall be implemented for all fall exposures of six (6) feet or more whether moving or stationary in an unprotected elevation, and anytime where a fall could occur from a surface that is not protected by handrails, hole-covers, guardrails or other appropriate fall elimination device.

B. Where a fall hazard exists, efforts must be made to eliminate the hazard; provide protection against the hazard; or establish alternative methods to control/monitor the hazard.

C. Any personnel approaching within six (6) feet of any skylight shall be protected from falling through the skylight or skylight opening.

D. Toeboards, debris netting (e.g. snow fence), or equivalent type material, shall be used at the perimeter of structures where other operations, facilities or people could be impacted by falling debris.

E. Rescue shall be addressed in the fall protection policies and fall protection training.

F. Methods of fall protection include:
   1. Guardrails and toeboards.
   2. Covers for floor and roof openings, pits, trap-doors, and temporary floor openings.
   3. Personal Fall Arrest System (PFAS).
   4. Personal Fall Restraint System (PFRS).
   5. Positioning Device System.
   6. Safety Nets.
   7. Scaffold Platforms.
   8. Roof Warning Lines.

G. The implementation of the fall protection plan shall be under the supervision of a Competent Person.

H. Contractor shall submit to Construction Manager a project site specific written fall protection plan prepared by a Qualified Person and developed specifically for work activities exceeding six (6) feet in elevation requiring fall protection. The fall protection plan must be signed by the

Contractor's:

1. Qualified Person who created the plan
2. Competent Person supervising operations covered by the plan
3. Contractor's Project Manager
4. Contractor's Project Foreman/Supervisor

I. Submit to Construction Manager documentation of training on Personal Fall Arrest System (e.g. harness, lanyard, anchor point) if anyone will be utilizing a body harness.

J. Each personal fall arrest system shall be inspected by a Competent Person in accordance with the manufacturer's recommendations. The date of each inspection shall be documented.

K. Personal Fall Arrest Systems (PFAS) shall limit the fall distances to a maximum of six (6) feet and prohibit personnel from contacting a lower level or structure element.

L. The only type of body restraint system allowed is full body harness with a lifeline, lanyard, and deceleration device. Safety belts or body belts are not permitted for fall arrest.

M. All personal fall arrest, personal fall restraint and positioning device systems shall be labeled as meeting the requirements contained in ANSI A10.14-1991.

N. Where practical, the anchor end of the lanyard shall be secured at a level not lower than personnel's waist.

O. Lifeline and anchorages shall be capable of supporting a minimum dead weight of 5,000 pounds.

P. Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds.

Q. Anchorages used for attachment of personal fall arrest equipment:
   1. Shall be independent of any anchorage being used to support or suspend platforms.
   2. Capable of supporting at least 5,000 pounds per person or part of a complete personal fall protection system used under the supervision of a Qualified Person that maintains a safety factor of at least two (2).

R. The use of non-locking snap hooks is prohibited.

S. Residential and light commercial projects
   1. Framers shall follow Cal/OSHA regulations for fall protection associated with their type of work activities, which would typically require fall protection at 15ft or higher.

3.19 Fire Protection and Prevention

A. Each Contractor is responsible for conducting a monthly inspection of their fire extinguishers to ensure they have not been damaged, discharged or gone missing.

B. Portable fire extinguishers.
   1. Shall be fully charged, inspected monthly, serviced annually and have inspection tag.
   2. Fire extinguishers rated not less than 10B (e.g. 2A:10BC), shall be provided within 50 feet of any area where more than 5 gallons of flammable or combustible liquids are stored.
   3. Fire extinguisher rated at least 10-B:C, shall be kept near operations where fuel gas cylinders/bottles are being used.
   4. Fire extinguishers shall be readily available for use where temporary heating devices are used.

C. Storage of more than 25 gallons of flammable liquids or 60 gallons of combustible liquids shall be in a NFPA approved storage cabinet. Not more than 120 gallons of Class I, II, or IIIA liquids may be stored in a storage cabinet.

D. "No Smoking" signs shall be posted as required by operations or material exposures.

3.20 Flammables and Combustibles

A. Contractor is required to supply fire extinguishers, fire blankets, and other sufficient fire protection devices for the immediate work area where flammable and combustible material is stored or used. All fire extinguishers must be provided by each Contractor and rated at least a minimum of 2A:20B-C. (For additional information, refer to Fire Protection and Prevention section).

B. Any supplied flammable liquids must be stored in FM approved or UL listed safety containers.
   1. All containers must be properly labeled and stored when not in use.
   2. Only FM approved or UL listed, or DOT metal safety cans will be allowed for flammable storage. (NO PLASTIC FUEL CANS).

C. Contractor shall identify non-compatible materials in advance and provide for separate storage as required.

D. All outside storage areas must be at least 20 feet from any building.

E. For roof work:
   1. No more than a one-day supply of flammables may be placed on the roof during working hours.
   2. All flammables must be removed from the roof at the end of each workday by the Contractor.
   3. At least two (2) fire extinguishers appropriate for the type and quantity of flammable materials present must be provided if flammables are present.

F. Any supplied flammable and combustible materials must be kept away from sparks, heaters, and any other heat source.

G. Empty containers of flammable and hazardous materials shall be removed from the project site as soon as possible.

3.21 Floor, Roof, and Wall Openings

A. Contractor shall be responsible for covering floor, roof and wall openings it has created.
   1. Covers must be able to support at least 400 pounds or twice the weight of the anticipated load.
   2. Must be secured to prevent accidental removal or displacement.
   3. Must be labeled "Hole" or "Cover''.

3.22 Forklifts (Industrial Trucks and Tractors)

A. Only drivers authorized by the Contractor and trained in the safe operations of industrial trucks shall be permitted to operate forklifts.

B. Operator training and posting of information regarding forklift operations shall be in accordance with applicable Cal/OSHA Standards.

C. Contractor shall certify that each Operator has been trained and evaluated. Training records (Operator cards) must be available for review at all times for the piece of equipment they are operating.

D. All forklifts and industrial trucks and tractors shall be equipped with an audible back-up alarm which can be clearly heard from a distance of 200 feet. In congested areas or areas with high ambient noise which obscures the audible alarm, a signal person in clear view of the operator shall direct the backing operation.

E. Every industrial truck and tractor shall be equipped with operable brakes, a parking brake, and a horn.

F. The rated capacity of all industrial trucks and industrial tractors shall be displayed at all times on the vehicle in such a manner that it is readily visible to the Operator.

G. Forklifts (Industrial Trucks and Tractors) shall not be loaded in excess of their rated capacity.

H. Seat belts shall be provided and worn on industrial trucks and tractors where rollover protection is installed and Operator shall be instructed in their use.

I. No riders shall be permitted on vehicles unless the vehicles are equipped with adequate riding facilities.

J. No one shall ride on or be elevated on the forks of lift trucks.

K. Industrial trucks may be used to elevate personnel in accordance with applicable Cal/OSHA Standards and manufacturer's recommendations using appropriate personnel platforms.

L. No one shall be allowed to stand, pass, or work under the elevated portion of an industrial truck, loaded or empty.

M. Operators shall check the vehicle at least once per shift. Attention shall be given to tires, horn, lights, battery, controller, brakes, steering mechanism, cooling system, and the lift system (forks, chains, cable and limit switches).

N. Operators shall not exceed the authorized or safe speed, always maintain a safe distance from other vehicles, keeping the truck under positive control at all times.

O. Operators shall slow down and sound the horn at cross aisles and other locations where vision is obstructed.

P. Grades shall be ascended or descended slowly.

Q. The forks shall always be carried as low as possible, consistent with safe operation.

R. When leaving a vehicle unattended, the power shall be shut off, brakes set, the mast brought to the vertical position, and forks left in the down position.

S. "Free Rigging" is not permitted. If loads are to be suspended from the forklift, it must be with the appropriate manufacturers approved attachment.

3.23 Hazard Communication/Globally Harmonized System (GHS) Program

A. Contractor shall maintain a copy of all Safety Data Sheets (SDS), chemical inventory list for all hazardous substances used at the project site by their firm, as well as all hazardous substances used at the project site by all subcontractors.

B. In accordance with the provisions of the Hazard Communication / GHS standard, Contractor must have a comprehensive written Hazard Communication Program which includes:
   1. A list of hazardous substances known to be on the project site.
   2. Methods the Contractor will use to inform personnel of the hazards of non-routine tasks.

3. The program shall include methods the Contractor will use to inform other Contractor(s) of any precautionary measures.
4. The methods used to provide other Contractor(s) with access to Safety Data Sheets (SDS).
5. The methods the Contractor will use to inform the other Contractor(s) of the labeling system in use.

C. Contractor must submit a copy to Construction Manager prior to work starting:
1. The Hazard Communication / GHS Program.
2. Safety Data Sheets (SDS) for any hazardous substances that will be used on the job site.

D. Contractor must have a binder which contains the following items:
1. A comprehensive written Hazard Communication / GHS Policy.
2. A chemical inventory listing all hazardous materials brought onto or used on the project site by the Contractor.
3. Safety Data Sheets (SDS) for all hazardous materials used on the project site.

E. Contractor shall ensure their personnel have received training in the safe use of hazardous materials; and are able to read and understand the information on Safety Data Sheets (SDS). The training shall include at least:
1. Methods and observations that may be used to detect the presence or release of a hazardous chemical.
2. The physical and health hazards of the chemicals used in the work area.
3. Measures personnel can take to protect themselves from the hazards.
4. Details of the Hazard Communication Program, including the labeling systems and the use of SDS.

F. Contractor shall ensure that all containers used on the project site are properly labeled as to their contents, including gas and diesel containers.

3.24 Hazardous Materials, Toxic Substances and Environmental Controls

A. Contractor is responsible for the generation, management, and proper disposal of any hazardous material, toxic substances, or any related materials or substances, as defined or included in the definition of "hazardous material" under any applicable Federal, State, or Local Law, Regulation or Ordinance.

B. Contractor agrees to notify Construction Manager within 72 hours for approval:
1. Delivery of any large quantities (more than 55 gallons) of gasoline, diesel fuels and any solvent onto the project site.
2. Approval to bring hazardous wastes on the project site or generate hazardous waste.
3. Using any chemical or material creating noxious or toxic fumes.
4. Such request may or may not be granted.

C. Contractor using any hazardous material or toxic substance shall notify all other Contractors on the project site of their use, and what measures should be taken to prevent exposure.

D. All incidents involving exposures to or releases of potentially hazardous substances must be reported immediately, verbally, and followed in writing within 24 hours to Construction Manager.

E. Spills of hazardous materials (including cutting oil, fuel, solvents, and antifreeze) must be reported immediately to the appropriate regulatory agencies and to Construction Manager. The creating Contractor responsible for the spill is responsible for cleanup costs.

F. The creating Contractor is responsible for proper disposal of its hazardous wastes. A copy of

the completed Uniform Hazardous Waste Manifest must be provided to Construction Manager.

G. Cutting equipment must have secondary containment (e.g. drip pans, sandboxes).

H. All containers:
   1. Drums, jugs and other containers must have secondary containment.
   2. Must be maintained in good condition and must be appropriate for the materials to be stored in them.
   3. All containers must be labeled with their contents and precautions for use.
   4. Hazardous waste containers must be labeled "Hazardous Waste" in addition to listing their contents on the label.

I. Weekly inspection of the project site must be performed by each Contractor to assure compliance with this section.

J. Gasoline shall not be used for cleaning purposes.

3.25 Heaters – Portable Heaters

A. All heaters must be Factory Mutual and/or Underwriters Laboratory approved.

B. The Contractor must notify Construction Manager when liquid/gas fueled heaters brought onto the project site prior to use.

C. Tent heater use requirements:
   1. Use only in tents made of fire resistant material.
   2. Avoid contact with heating elements or other hot parts.
   3. Keep flammable materials and clothing away from hot equipment.
   4. Never use heaters in a utility hole or in a tent that covers a utility hole.
   5. Ensure adequate ventilation is provided when using a tent.
   6. Secure a fire extinguisher within the tent in an accessible location.

3.26 Heavy Equipment / Material Handling and Earthmoving Equipment

A. Equipment shall be maintained in good working order. All vital parts such as motors, chassis, blades, blade holders, tracks, drivers, hydraulic and pneumatic mechanisms, and transmissions must be inspected each day.

B. Drivers must be specifically trained to operate the mobile equipment they intend to use. All Operators must follow manufacturers' operating and safety instructions. Training records must be available at the project site for review.

C. Whenever visibility conditions warrant additional light, all vehicles, or combination of vehicles, in use shall be equipped with at least two (2) headlights and two (2) taillights in operable condition.

D. All vehicles, or combination of vehicles, shall have brake lights in operable condition.

E. All vehicles shall be equipped with an adequate audible warning device (horn) at the Operator's station.

F. All vehicles and equipment must have a back-up alarm that is normally audible for a distance of 200 feet.
   1. In congested areas or areas with high ambient noise which obscures the audible alarm, a signal person in clear view of the operator shall direct the backing operation.

G. All vehicles with cabs shall be equipped with windshields and powered wipers.

H. Vehicles operating in areas or conditions that cause fogging or frosting of windshields shall be equipped with operable defogging or defrosting devices.

I. Cracked or broken windshields shall be promptly replaced.

J. Windshields and mirrors shall be kept clean such that vision is not compromised or obstructed.

K. Seatbelts shall be provided and worn with the approved proper anchorage points.

L. Trucks with dump bodies shall be equipped with positive means of support, permanently attached, to prevent accidental lowering of the body while maintenance or inspection work is being done.

M. Operating levers controlling hoisting or dumping devices on haulage bodies shall be equipped with a latch or other device that will prevent accidental starting or tripping of the mechanism.

N. Trip handles for tailgates of dump trucks shall be so arranged that, in dumping, the Operator will be in the clear.

O. All rubber-tired motor vehicle equipment shall be equipped with fenders.

P. All vehicles in use shall be checked at the beginning of each shift for defects in:
   1. Service brakes, trailer brake connections, parking brake system, and emergency stopping systems (brakes).
   2. Tires, horn, steering mechanism, seat belts, operating controls and safety devices.
   3. Lights, reflectors, windshield wipers, defrosters, and fire extinguishers.

Q. Before starting a job, the Operator shall be given instructions regarding the work to be done.

R. Before starting the motor, the Operator shall check to make sure that all operating controls are in the neutral position.

S. Before starting the equipment, or moving the equipment after re-entering the cab, the Operator shall walk entirely around the equipment to make sure no other personnel, equipment or material will be struck.

T. Contractor shall ensure that Operators of heavy equipment wear appropriate hearing protection devices when exposed to noise over 90dB.

U. At no time shall a piece of equipment be left unattended while the motor is running, especially if the machine is on an inclined surface or on loose material.

V. Block or chock wheels when parking on inclines.

W. Machines shall be operated at speeds and in a manner consistent with conditions on the project site.

X. No one other than the Operator shall ride on equipment.

Y. During refueling operations equipment motors shall be turned off. Smoking is prohibited during refueling.

Z. If possible, equipment shall be driven entirely off the roadway at night.

AA. Unattended equipment must be left in a secure area not accessible to members of the public or unauthorized third parties. Keys shall be removed from unattended equipment.

BB. Spotters and/or Flaggers must be used when equipment Operator's view is obstructed whether moving forward or backward.

3.27 Horizontal Boring / Pipe Jacking

A. Prior to boring/jacking operations the Contractor must contact DIG ALERT to ensure all owners of underground facilities in the area are notified to mark their utility locations.

B. The Contractor shall locate all buried utilities (Pot hole) before commencing boring/jacking operations. No mechanical devices may be used to Pot hole. Hand dig only.

C. Open a guide hole (bore slot) over any existing utility that is in line with the bore shot.

D. Excavate bore slot, bell hole and guide holes as necessary.

E. If resistance is encountered during the boring/jacking operation, cease the boring operation immediately and excavate at the point of resistance to determine necessary action.

F. The Operator must be trained in the use of the boring/jacking machine.

G. At least two people must operate the bore motor at all times.

H. Stay clear of rotating bore pipe and the rotating head of boring machine. Loose clothing, long hair, or gloves can cause injury if caught in rotating bore pipe.

I. Only one person shall transmit signals to the Operator.

J. Do not hold rotating bore pipe with hands or feet.

K. Operate the boring machine only at slow RPM's when connecting or disconnecting bore pipe.

3.28 Housekeeping

A. Contractor shall perform their work so as to maintain the project site in a clean, safe and orderly condition.

B. Contractor is responsible for clean-up and removal of their debris, excess material, trash, waste, and tools on a daily basis. All work areas shall be kept clean at all times. IfContractor fails to perform this function, Construction Manager reserves the right to charge the Contractor for clean-up performed on their behalf by others.

C. All construction materials must be stored in an orderly manner.

D. All exits and access ways must be kept unobstructed.

E. Emergency exits must be available. Panic hardware, where present, must remain unobstructed.

F. All work areas must be cleaned and free of debris.

G. Puncture hazards (e.g. nails, staples, and fasteners) created by stripped formwork, scrap lumber, pallets, and shipping materials shall be eliminated or controlled.

H. Metal containers with covers must be provided for disposal of oily and paint soaked rags.

I. Walkways and sidewalks must be kept free of construction materials, debris, dirt, tools and extension cords.

J. Where steel plates are used to bridge excavations or other similar type of construction activities in walkways or sidewalks, the leading edges of the steel plates must be tapered or feathered with temporary asphalt or other suitable materials to prevent trip hazards.

K. Rubbish and construction debris bins must be structurally sound and designed for lifting. Bins should not be filled above their top edge and should be covered during lifting to prevent material falling out.

L. Empty containers of flammable and hazardous materials shall be removed from the project site as soon as possible.

M. Dry sweeping or dry brushing where such activities could contribute to exposure to respirable crystalline silica is not permitted. Wet sweeping, HEPA-filtered vacuuming or other method(s) to minimize exposure are required.

3.29 Impalement Protection

A. Contractor shall be responsible for protecting all impalement hazards (e.g. form stakes, rebar, and EMT) it has created by complying with Cal/OSHA standards for protecting impalement hazards (e.g. approved Cal/OSHA cap).

B. Personnel exposed to protruding reinforcing steel or other similar projections, shall be protected against impalement hazard by guarding all exposed ends that extend up to six (6) feet with protective covers, or troughs.

3.30 Ladders

A. Type II (Medium-Duty – 225 lbs. working load) and Type III (Light-Duty – 200 lbs. working load) ladders are prohibited.

B. The Contractor shall provide a training program for ladder use and stairways, as necessary. The program shall enable personnel to recognize hazards related to ladders and stairways, and the procedures to be followed to minimize these hazards.

C. A Qualified Person shall inspect as frequently and after any occurrence that could affect their safe use.

D. Broken or defective ladders must be immediately removed from service.

E. Personnel must maintain 3-point contact while ascending or descending a ladder.

F. Job-made ladders shall not be permitted unless they meet the requirements of the Cal/OSHA Standards.

G. All types of ladders must be inspected at least daily for:
   1. Cracks, splits, splinters, and decay.
   2. Protruding nails and loose rivets.
   3. Loose, bent or broken braces, tie rods, guide irons, locks, pulleys and strand hooks.
   4. Broken, worn or defective spurs and pads.

H. Extension Ladders.
   1. Portable ladder feet shall be placed on a substantial base.

2. Straight and extension ladders must be tied-off or secured to prevent displacement.
3. Metal ladders must not be used near energized equipment.
4. No more than one person is allowed on a ladder.
5. Ladders are not to be used for skids, braces, workbenches, or any other purpose other than climbing.
6. All straight and extension ladders must be equipped with nonskid safety feet.
7. Ladders must extend no less than 36 inches above the landing.
8. Ladders shall be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is about one-quarter of the working length of the ladder (4:1).

I. Step Ladders.
1. Step ladders must be fully open and the spreader set in the open and locked position.
2. Do not climb, stand or sit on the top two rungs.
3. Do not lean a step ladder against a wall or other object in the unopened position.
4. Always ascend and descend facing the ladder.
5. Do not exceed the designated weight capacity.

3.31 Lead Abatement

A. The Owner shall identify any Lead Based Paint (LBP) within the proposed scope of work prior to any construction, remodeling, or demolition activities.

B. The Owner shall identify any sheet lead, such as in laboratories and x-ray facilities prior to commencing demolition or construction activities.

C. The Owner shall arrange for disposal of the hazardous waste stream (e.g. paint chips), through a waste disposal facility with a current California TSDF permit and obtain the EPA Hazardous Waste Generator Identification number.

D. Personnel who performs lead abatement work shall have a current training certification by a California accredited lead trainer. The overseer of the work is the "Supervisor" as required by Cal/OSHA.

E. All lead abatement and removal work must follow applicable regulations of Cal/OSHA, the Environmental Protection Agency (EPA), state, federal and local requirements.

F. Contractor must submit a copy of the "Lead-work pre-job notification" to Cal/OSHA and Construction Manager at least 24 hours before conducting lead-related work.

G. Supervisor must conduct frequent and regular inspections of the project site, regulated areas, materials, and equipment.

3.32 Liquids – Corrosive acids and Caustics

A. Contractor shall not store, handle, apply or use acids or caustics until a proper procedure, per OSHA standards, has been established.

B. Never add water to acid – if dilution is needed, add acid to water.

C. Contractor using acids or caustic materials shall have an emergency eyewash and/or shower facility immediately available to personnel working with these types of materials.

D. Proper personal protection must include a face shield, apron, and gloves as well as any other equipment deemed necessary by the SDS or manufacturer's usage instruction.

3.33 Lockout/Tagout (LOTO)

A. The Contractor must have a written Lockout/Tagout (LOTO) program for the control of hazardous energy that meets or exceeds the Cal/OSHA Standards and a copy submitted to

the Construction Manager.

B. Equipment, energized systems, and pressurized systems shall be completely de-energized before beginning the Lockout/Tagout procedure and subsequent cleaning, servicing, or adjusting.
C. Moveable parts shall be mechanically blocked or locked out prior to cleaning, servicing, or adjusting operations.

D. Equipment that has lockable controls or that is readily adaptable to lockable controls shall be locked out or positively sealed in the "off" position.

E. Accident prevention signs or tags shall be placed on the controls of equipment, machines, and prime movers during repair work.

F. All Contractors must affix their own lock/tag.

G. Locks and tags must be removed at the end of the job by the originator. Never remove another person's tag or lock to operate a switch, valve, or device.

3.34 Motor Vehicles

A. Those driving project site motor vehicles shall have a valid driver's license for the state in which he or she resides and for the class vehicle driven.

B. Drivers of vehicles over 26,000 pounds GVW are required by Federal and State Departments of Transportation regulations to possess a Commercial Driver's License (CDL).

C. Drivers must be specifically trained to operate the mobile equipment they intend to use. Training records must be available at the project site for review.

D. Drivers on the project site shall obey all street and highway speed and traffic laws.

E. Drivers shall check the mechanical condition of their vehicles at least daily.

F. Only if necessary, will a motor vehicle be left running and operator must maintain constant visual contact within 25 feet of the vehicle.

G. Drivers are required to observe the "right-of-way" rule. Yield to other drivers whose driving actions demand the right-of-way.

H. Drive defensively. Anticipate what the other driver may do. Leave yourself an out.

I. Drivers shall keep a distance of AT LEAST one vehicle length for each 10 miles of speed between their vehicle and the vehicle in front of them.

J. Seat belts shall be worn anytime when driving or riding in project vehicle.

K. Block or chock vehicle wheels when parking on inclines.

L. All passengers in motor vehicles must be seated and within the confines of the vehicle.

M. No one is permitted to ride in the open bed of a pick-up truck.

N. Unauthorized passengers shall not be transported in any vehicle or on any equipment at any time.

O. The project site speed limit is 5 mph. Obey all traffic signs.

P. Pedestrians have the right-of-way.
Q. Parking shall be in specified areas only. Do not block entrances and do not park in reserved spaces.

R. The Contractor is responsible for the stability of any material being hauled.

3.35 Overhead Utilities

A. Contractor shall identify all overhead utilities prior to the start of any work.

B. For power lines rated 50kV or less, minimum clearance around the lines is 10 feet.

C. For power lines rated over 50kV, minimum clearance around the lines shall be at least 20 feet. If 20 feet is not achievable, the Contractor will schedule a formal meeting with Construction Manager to review clearance tables, de-energize power, and other alternatives.

3.36 Pile Driving

A. Contractor will designate a danger zone that will clearly delineate around the operating hammer where personnel involved in cutting, chipping or welding operations shall be prohibited so as to protect them from the hazards of falling objects.

B. The danger zone shall be maintained under the supervision of a Competent Person.

C. A blocking device or other effective means capable of safely supporting the weight of the hammer shall be provided to secure the hammer in the leads and shall be used at all times when any personnel is working under the hammer.

D. Access to Pile Leads

1. Leads shall be provided with a continuous ladder or horizontal bracing that is uniformly spaced at intervals no greater than 18 inches and the leads shall be equipped with adequate anchorages, so that personnel may engage a personal fall protection system to the leads.
2. The operator of the equipment will apply all brakes and necessary safety switches to prevent uncontrolled motion of the equipment before personnel may access the leads.

E. Sheet pile access

1. If personnel are required to go aloft on sheet piling, personnel shall use an aerial device or ladder.
2. Sheet piling shall be firmly stabilized before personnel are permitted to work on them.
3. Stirrups shall be provided for use by personnel who must take a position on sheet piles.

F. Where work is to be performed, walkways at least 20 inches in width shall be provided across piles or other open work with the exception of those piles on which the driver is standing.

G. Before any type of pile is placed in position for driving, the pile head must be cut square to the driving head and free of concrete spall, steel fragments, or other debris.

H. Pile hammer requirements

1. The pile hammer, clamp, power unit and supply hoses shall be inspected in accordance with their manufacturer's recommendations. Associated equipment such as the couplings, support and lifting equipment, rigging and retaining bolts shall be inspected before each shift and periodically during use.
2. Driving heads shall be kept aligned with the pile and pile hammer as a pile is driven

I. Vibratory pile hammer
   1. When driving with a crane-suspended vibratory pile hammer, the person operating the remote on/off clamp switch shall be in direct visual contact with the signal person.

J. Pile Driving Rig Stability.
   1. Guys, outriggers, thrustouts, or counter-balances shall be provided as necessary to maintain stability of pile driver rigs.
   2. Hammers shall be lowered to the bottom of the leads while the pile driver is being moved (traveling).
   3. All personnel shall be kept clear when piling is being hoisted into the leads.

K. When driving jacked piles, all access pits shall be provided with ladders and bulk-headed curbs to prevent material from falling into the pit.

L. Hoisting of piling shall be done by hooks provided with a means to prevent accidental disengagement or a shackle shall be used in place of a hook.

M. Taglines shall be used for controlling unguided piles and free hanging (flying) hammers.

3.37 Powder-Actuated Tools

A. Only trained and Qualified personnel holding a valid operator's card can use a powder- actuated tool.

B. Powder-actuated tools must meet or exceed the requirements of ANSI A10-3.1977.

C. Containers for powder-actuated tools must be lockable and bear the label 'Powder-Actuated Tool' on the outside. The container must be kept under lock and key storage.

D. The following must be provided with each tool:
   1. Operating and service manuals.
   2. Power load chart.
   3. Inspection-Service record.
   4. Repair and servicing tools.

E. Eye and/or face protection is required for Operators and assistants.

F. Tools must be inspected prior to use. Defective tools must not be used.

G. Powder-actuated tools must be unloaded if work is interrupted. Tools must not be loaded until ready for use.

H. Powder-actuated tools must not be left unattended.

I. On misfire, the tool must be held in place for 30 seconds.

J. Misfire shall be placed in a designated can of water. Used and misfired cartridges shall be properly disposed.

K. Different power loads must be kept in separate compartments.

L. Warning signs must be posted bearing the words: "Powder-Actuated tools in use" within 50 feet of the point of use.

3.38 Precast, Pre-Fabricated Concrete Construction, Tilt-up, Panels

A. An erection plan, addenda, and procedure shall be prepared by or under the direction of a professional engineer registered in California.

B. The erection plan, addenda, and procedures shall be available at the jobsite and submitted to the Construction Manager.

C. Inspections shall be made by the professional engineer, or authorized representative, during the course of erection.

D. Proposed field modifications shall be approved by the professional engineer.

E. No personnel shall be directly under the load

F. Only personnel essential to the operation are permitted in the fall zone (but not directly under the load).

G. Wall panels shall be supported to prevent overturning, toppling and/or collapse until permanent connections are completed as specified in the erection plan

H. Panels shall be properly braced to resist wind and lateral forces.

3.39 Respiratory Protection

A. Contractor shall prepare a written Respiratory Protection Program for protection of those who will be wearing a respirator and submit a copy to the Construction Manager.

3.40 Scaffold

A. Contractor shall have a written program addressing scaffold procedures for safe erection, use and dismantling of scaffold system.

B. Scaffolds shall be erected, moved, or dismantled or altered only under the supervision and direction of a Competent Person qualified in scaffold erection, moving, dismantling or alteration.

C. Contractor's designated Competent Person shall:
   1. Determine the feasibility and safety of providing fall protection for personnel erecting or dismantling supported scaffolds. Fall protection is required for personnel erecting or dismantling supported scaffolds where the installation and use of such protection is feasible and does not create a greater hazard.
   2. Inspect their scaffold prior to use each day.
   3. Have at each access point (e.g. ladder, stair tower), a "green" inspection tag. This tag shall also be signed by the Competent Person daily, prior to use, as verification of their inspection.

D. Personnel involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold shall be trained by a Qualified Person to recognize any hazards associated with the work in question. The training shall include the following topics, as applicable:
   1. The nature of any electrical hazards, fall hazards, and falling object hazards in the work area.
   2. The correct procedures for dealing with electrical hazards.
   3. The correct procedures for erecting, maintaining, and dismantling the fall protection and falling object protection systems being used.
   4. The proper use of the scaffold, including the proper handling of materials on the scaffold.
   5. The maximum intended load and the load-carrying capacities of the scaffold.

6. Any other pertinent procedures or safety requirements.

E. Handrails, midrails and toe boards (as necessary) are required on all scaffold over six (6) feet high. If the guardrail system is incomplete or missing, personal fall protection is required.

F. Untagged scaffolds shall not be used.

G. Scaffolding material must not be damaged and planks must be free of defects, damage or debris. Painted planks will not be permitted.

H. Scaffold planks must be laid tight and secured to prevent movement. Planks must overlap between 6 and 12 inches over the scaffold supports.

I. A stair-tower or built-in stair/ladder system shall be provided for access to all scaffolds four (4) frames or more in height.

J. Personnel may ride on rolling scaffold moved by others below if the following exist:
   1. The floor or surface is within 3 degrees of level, and free from pits holes, or obstructions.
   2. The minimum dimensions of the scaffold base, when ready for rolling, is at least ½ of the height. Outriggers, if used, shall be installed on both sides of staging.
   3. The wheels are equipped with rubber or similar resilient tires.
   4. The manual force used to move the scaffold shall be applied as close to the base as practical, but not more than 5 feet (1.5 meters) above the supporting surface of the scaffold.
   5. Before a scaffold is moved, personnel on the scaffold shall be made aware of the move.
   6. No one shall be on any part of the scaffold which extends outward beyond the wheels, casters, or other support.

K. No surfing or self-propelling mobile scaffolding will be permitted without a submitted Contractor's "surfing scaffold" program.

L. Wheels must be locked on rolling scaffolds before use.

M. All connections, including casters, on rolling scaffolds shall be pinned.

N. Scaffolds must be erected level on a firm base. When the scaffold is resting on earth or other such material, the uprights shall rest on and be secured to the equivalent of a 2-inch by 10- inch by 10-inch (2" x 10" x 10") wood base. Base plate shall be nailed in accordance with CAL/OSHA standards.

O. The Contractor must keep the platform load within the safe platform work load limit.

P. In the event the height-to-base ratio exceeds 3:1, the system must be secured to the structure. The system shall be tied at the ends and inside of the system at 26ft vertical intervals and 30ft horizontal intervals. The top work level shall be tied.
   1. Exception: When the frame width is 3ft wide, tie off is at 20ft vertical intervals.

Q. Ties should provide tension, as well as compression and sway support
   1. Use no less than #12 wire, double looped or #10 wire, single wrapped.

R. Suspended scaffolds that are in service shall be inspected by a Competent Person daily and tested as frequently as is necessary in order to provide proper maintenance.

S. Suspended scaffolds must have adequate anchorage points. Those on the scaffold shall have a full body harness, lifeline and deceleration device that must be attached to a separate

anchorage point other than that of the scaffold before stepping out onto any suspended scaffold.

3.41 Silica and Dust Exposure Protection

A. Contractor shall submit to Construction Manager a written Respirable Crystalline Silica Program.

B. Contractor shall fully and properly implement the engineering controls (e.g. integrated water delivery system that supplies water to cutting surface, or commercially available shroud or cowling with HEPA-filter dust collection system), work practices, and respiratory protection to reduce and maintain exposure to respirable crystalline silica and/or dust to or below the PEL.

C. During operations in which hand tools, powered tools or equipment are used to cut, core, chip, drill, grind, profile, or sand and creates respirable crystalline silica and/or dust; a dust reduction system shall be applied to effectively reduce those particulates.

D. Procedures shall be implemented to ensure that dust reduction systems maintain their effectiveness for dust reduction throughout the work shift.

E. Dust reduction systems shall be installed, operated, and maintained in accordance with manufacturer's recommendations.

F. Dry sweeping or dry brushing where such activities could contribute to exposure to respirable crystalline silica is not permitted. Wet sweeping, HEPA-filtered vacuuming or other method(s) to minimize exposure are required.

G. The Competent Person must make frequent and regular inspections of the project site, materials, and equipment to implement the written exposure control plan.

3.42 Steel Erection

A. No building, structure, or part thereof, or any temporary support shall be loaded in excess of its design capacity.

B. Trusses and beams shall be braced laterally and progressively during construction to prevent buckling or overturning.

C. During placing of structural members, the load shall not be released from the hoisting line until the members are secured with not less than two bolts drawn up wrench tight.

D. During the installation of decking, the exposed edges of all temporary planked and metal decked floors at the periphery of the building, or at interior openings, such as stairways and elevator shafts shall be protected by a single 3/8-inch minimum diameter wire rope located between 42 and 45 inches above design finish floor height. Mid-rail protection shall be installed at the completion of the installation of decking.
   1. Other guardrail protection may be used if equal fall protection is provided.
   2. Periphery fall protection intended to be used as a catenary line can be used if it meets Cal/OSHA requirements for fall protection.

E. Where skeleton steel is being erected, a tightly planked and substantial floor shall be maintained with two (2) stories or 30 feet, whichever is less, below and directly under the portion of each tier of beams on which any work is being performed.

F. When connecting beams at the periphery or interior of a building or structure where the fall

distance is greater than six (6) feet, the Connector shall be provided with and use appropriate personal fall protection equipment in accordance with Cal/OSHA requirements.

1. Connector means a person who, working with hoisting equipment, is placing and connecting beams or other structural members.

G. When performing work other than connecting, personnel shall be provided and use personal fall protection equipment in accordance with Cal/OSHA requirements where the fall distance is greater than six (6) feet.

H. Open web steel joists shall not be placed on any structural steel framework unless such framework is safely bolted or welded.

I. Containers shall be provided for storing or carrying rivets, bolts, and drift pins, and secured against accidental displacement when aloft.

J. When bolts or drift pins are being knocked out, means shall be provided to keep them from falling.

K. Impact wrenches shall be provided with a locking device for retaining the socket.

L. Connections of equipment used in plumbing-up shall be properly secured.

M. Turnbuckles shall be secured to prevent unwinding while under stress.

N. Plumbing-up guys shall be removed only under supervision of a Competent Person.

O. Work taking place above grade or any surface exposed to protruding reinforcing steel, or other similar objects, shall be protected against the hazard of impalement by the use of guardrails, or approved ANSI certified fall protection system, or protective covers (e.g. rebar caps).

3.43 Tar and Melting Pots

A. Any melting chamber must be vented and must have a working thermometer.

B. No melting pots or tar kettles may be located on roof structures. All melting pots must be on the ground outside, and at least 25 feet from any building.

C. Pipelines shall be adequately braced or supported to prevent collapse.

D. Pumper pipelines shall be securely fastened at rooftop and shall not be supported by ladders used for access.

E. Barricades must be provided when hot liquids are present overhead on a roof or upper floor.

F. Buckets containing hot asphalt or pitch shall not be carried on ladders.

G. A fire extinguisher shall be kept near each kettle in use. Extinguisher capacity shall be at least:
   1. Less than 150 gallon kettle – 8:BC.
   2. 150 – 300 gallon kettle – 16:BC.
   3. Larger than 350 gallon kettle – 20:BC.

H. Kettle and tanker pumps shall be provided with a means of stopping the flow of hot asphalt or pitch manually from the rooftop in emergencies.

3.44 Traffic Control, Flagging Operations and Plate Bridging

A. Contractor may be required to submit a traffic control plan to the agency having jurisdiction. Plans requiring approval, must be submitted timely as not to impact the schedule. Any plan requiring agency approval or not, shall be forwarded to Construction Manager one (1) week prior to the work activity.

B. Traffic Control
   1. Contractor shall establish work area protection zones necessary to protect personnel and the public when work is performed in areas where pedestrians or vehicles have access.
   2. All personnel in work zones shall wear at a minimum Class II reflectorized vest (or jacket) in accordance with the requirements of Cal/MUTCD. Class III vests may be required, refer to Cal/MUTCD.
   3. Traffic control shall be established in compliance with California Manual on Uniform Traffic Control Devices (Cal/MUTCD), local traffic control regulations, WATCH Handbook, or other contract-referenced documents/standards.
   4. Contractor shall establish Work Area Protection in consideration of the location of the project site, pedestrians and traffic conditions, and the time of day (daylight or dark).
   5. Contractor shall ensure adequate protection to passing vehicles on a roadway by providing a Flagger when barricades, signs and signals may be insufficient.
   6. When placing or removing Work Area Protection, the Contractor shall:
      a. Be consistently alert to traffic conditions.
      b. Face oncoming traffic.
      c. Wear proper personal protection (e.g. Class II or III reflective vest, hard hat, and safety glasses).
   7. Place the initial warning signs (e.g. Construction ahead) first and remove last.
   8. Work zone site must be made safe for pedestrians by using:
      a. Rope or vinyl warning tape.
      b. Fencing or other barricades.
      c. Cones and signs.
      d. Pedestrian crossings (designated and painted).
      e. Other appropriate means, methods and devices.
   9. All night work requires adequate illumination to light the work area and warn the public vehicular traffic.
   10. For night work, the illumination used to light the work area shall be aimed such that it does not create glare for, or blind, the public driving through the work zone.

C. Flagging Operations
   1. Shall be conducted in accordance with the following unless a more specific standard applies.
      a. Flaggers shall be trained in the proper fundamentals of flagging (signaling) traffic before being assigned as Flaggers.
      b. The Flagger must be protected and the motorist forewarned by use of advance warning signs and cones.
      c. Use cones before the Flaggers position to mark the traffic lane.
      d. The use of reflective vests (minimum Class II) shall be required for all Flaggers.
      e. During the hours of darkness, the Flagger's position shall be illuminated.
      f. To 'Stop' traffic – The Flagger shall face traffic and hold the stop paddle in a vertical position at arm's length.
      g. When it is safe for traffic to proceed – The Flagger shall stand parallel to the traffic movement, and with the slow paddle held in a vertical position at arm length.

D. Plate Bridging
   1. Trenches, excavations, or other surface openings or significant depressions must be covered with a bridge plate to permit safe and unobstructed flow of traffic.

2. Bridging plates must be secured from movement by a holding device(s) such as cleats, angles, bolts, and tack welding.
3. Bridging plates should be installed to produce a minimum amount of noise.
4. Bridging plates must extend a minimum of one foot beyond the edges, with pavement materials feathering the edges for a reasonably smooth transition.
5. Advance warning signs shall be posted when steel plates are used in a travel path.

3.45 Trench and Excavation (see Barricades and Signs for additional information)

A. Contractor must identify all shut-off valves or control points for known utilities and ensure they work prior to digging.

B. Each Contractor shall call authority having jurisdiction (e.g. DIGALERT) to mark utilities.
   1. Areas to be excavated are to be scanned and/or traced with equipment that locates underground utilities (e.g. pacometer, magnetometer, x-ray, and ground penetrating radar).
   2. Underground locating company shall scan and locate all known below grade utilities by reviewing as-built and onsite utility monuments (e.g. gas and water meters, and electrical sub-stations) that may run within the limits of the project site.
   3. Underground locating company shall, at a minimum, sweep 12 feet to either side of the new construction prior to any excavation/trench.

C. Contractor shall pothole to locate existing utilities and provide as-builts for horizontal and vertical location.
   1. Visual verification by means of pot-holing by hand-digging, air excavation or water jet excavation shall occur at approximately 12 foot increments along existing utilities.
   2. Contractor must hand expose to the point of no conflict 24" on either side of the underground facility, so you know its exact location before using power equipment.
   3. Any damage to existing utilities shall be the responsibility of the Contractor to repair or reroute as necessary to maintain the operation of the system(s).

D. Contractor shall be responsible for protecting and maintaining all trenches and/or excavations it has created by complying with Cal/OSHA standards.

E. Contractor shall support and protect all existing site and offsite, above and/or below grade, utilities, improvements, and structures.

F. Contractor shall provide and maintain appropriate barricades to protect people, vehicles, and equipment from falling into the trench/excavation. Lighted barricades must be provided at night.
   1. Any trench/excavation that will remain open overnight will require either one or a combination of the following: railings, temporary fencing around perimeter, delineators and “danger” tape, walkway, bridge, and steel plate, and must be reviewed by Construction Manager prior to the Contractor leaving.
   2. Any steel plate (Bridge Plate) or other cover shall be installed in a manner so as to eliminate tripping hazards.

G. Contractor’s Competent Person shall:
   1. Determine the soil classification (Type A, B, or C) to determine the appropriate type of protective system required for the excavation.
   2. Supervise trenching or excavating operations.
   3. Inspect their trench and/or excavation prior to use each day, regardless of the depth.
      a. Contractor shall have written documentation of their inspection and submit to Construction Manager upon completion of the inspection.
   4. Be available at the project site during period of access into all trenches/excavations regardless of the protective systems.

H. The Contractor's materials for the protection of personnel (e.g. bracing, shoring, shielding, and trench boxes) must be in good condition and of proper dimensions/materials.

I. Excavation greater than 20 feet in depth must have a professional excavation plan approved by a Registered Professional Engineer (RPE). Reports of engineered excavations by professional engineers shall be submitted to Construction Manager.

J. Excavated soils, material or equipment are to be kept at least two (2) feet from the edge of the excavation.

K. Ladders or other safe means of access and egress must be provided by the Contractor when the depth of the trench or excavation are 4 feet or more in depth and spaced within 25 feet of lateral travel.

L. Walkways or bridges with standard guardrails shall be provided where personnel or equipment are required or permitted to cross over excavations over six (6) feet in depth and wider than 30 inches.

M. Structural ramps:
   1. That are used by personnel as a means of access or egress from excavations shall be designed by a Competent Person.
   2. Structural ramps used for access or egress of equipment shall be designed by a Competent Person qualified in structural design and shall be constructed in accordance with the design.

N. Where pedestrian traffic must be accommodated over excavations, suitable non-skid plates or other suitable material capable of withstanding at least twice the maximum intended load must be provided to serve as a pedestrian runway for safe passage.
   1. The edges of the runway shall be tapered to minimize trip hazards. Alternatively, the approach to the runway shall be tapered with a suitable and durable material, or the runway set into the surface, to minimize trip hazards.

O. Rescue equipment must be provided by the Contractor (e.g. full body harness and lifeline, breathing apparatus, and basket stretcher) when hazardous atmospheric conditions are expected to exist in a trench or excavation. (See Confined Space Entry for additional requirements).

PART 4 - EXHIBITS

4.1 Forms

A. Competent Person Designation Form.....Reference Exhibit "C.1"

B. Job Hazard Analysis (JHA) Form.....Reference Exhibit "C.2"

C. Pre-Shift Crew Meeting Form .....Reference Exhibit "C.3"

D. Lift Pick & Critical Lift Plan Form.....Reference Exhibit "C.4"

Exhibit "C.1 – Competent Persons Designation Form

COMPETENT PERSON DESIGNATION

An evaluation has determined that the person named below has knowledge of the systems, equipment, conditions and procedures, proper use, inspection, manufacturer's recommendations and instructions, and maintenance for the activities designated below. Consequently, this person has been designated as a: **"C" = Competent Person(s), "Q" = Qualified Person(s), "L" = licensed, "S" = Supervisor per Cal/OSHA guidelines** and delegated the responsibility and authority for coordinating activities and operations covered by the designation(s).

COMPANY: _____

Name of Designated Competent Person: _____

Title of Designated Competent Person: _____

COMPETENT PERSON DESIGNATION(S): Check all that apply

C = "Competent Person(s)", Q = "Qualified Person(s)", L = "Licensed or S = "Supervisor(s)"

☐ Asbestos Abatement (C)	☐ Demolition (Q)	☐ Ladders (Q)	☐ Scaffold (C)
☐ Burning, Welding & Hot-work (C)	☐ Electrician (Live Circuit) (Q)	☐ Lead Abatement (S)	☐ Silica & Dust (C)
☐ Confined Space (C)	☐ Explosives (L)	☐ Pile Driving (C)	☐ Steel Erection (C)
☐ Cranes & Rigging (Q)	☐ Fall Protection (C & Q)	☐ Powder Actuated Tool (Q)	☐ Trench/Excavation (C)

REVIEW AND VERIFY THE CREDENTIALS FOR DESIGNATED COMPETENT PERSON – Check all that apply

(Company Authorized Representative to complete):

☐ Formal Training (describe the training received and attach copy of training certificate(s), and the year training was completed):

_____

_____

☐ Union Apprenticeship (describe the training received and attach copy of training certificate(s), and the year training was completed):_____

_____

☐ Years of Experience (describe how this experience has enabled this person to be considered "Competent Person", and provide the number of years): _____

_____

_____

☐ Informal Training (describe the training, and when this training was conducted):_____

_____

_____

☐ On-The-Job Performance (OJT): (describe how OJT has enabled this person to be considered "Competent Person", and provide the number of years): _____

_____

SIGNATURES:

Competent Person: _____ **Date:** _____

Company Authorized Representative: _____ **Date:** _____

Title of Company Authorized Representative: _____

Exhibit “C.2” – JHA Form

Job Hazard Analysis (JHA)

Job/Operation Title:	JHA #:	Date:
Job Site Location:	Analysis By:	Approved By:
Contractor:	Special Hazard(s):	

Safety Equipment Required for this task:

☐ Hard Hats	☐ Gloves	☐ Hot Work Permit	☐ Caution Tape	☐ Other:
☐ Safety Glasses	☐ Steel Toe Boots	☐ Confined Space Permit	☐ Danger Tape	
☐ Face Shield	☐ Respirator	☐ Lockout/Tagout	☐ Barricades	
☐ Work Vests	☐ Hearing Protection	☐ Fire Extinguisher		

Step No.	SEQUENCE OF BASIC JOB STEPS	Step No.	POTENTIAL HAZARDS/ACCIDENTS	Step No.	RECOMMENDED SAFE JOB PROCEDURES

The Job Safety & Hazard Analysis (JSHA) is intended to assist in planning work. It is a guideline and not a definitive study of the hazards that may be present or may impact the job. Prime Contractor Supervisor is expected to complete their own independent Job Safety & Hazard Analysis (JSHA) prior to work beginning. Files of completed forms should be maintained at the jobsite.

Pre-Shift Crew Meeting (Production & Safety)

Contractor:	Conducted by: Title:	Day of Week & Date:
Project Name:	Special Hazard(s):	

Safety Equipment and PPE Required for the task(s):

☐ Hard Hats	☐ Gloves	☐ Hot Work Permit	☐ Caution Tape	☐ Other:
☐ Safety Glasses	☐ Steel Toe Boots	☐ Confined Space Permit	☐ Danger Tape	
☐ Face Shield	☐ Respirator	☐ Lockout/Tagout	☐ Barricades	
☐ Work Vests	☐ Hearing Protection	☐ Fire Extinguisher	☐ Traffic Control Devices	

Task(s)	Tools, Equipment & Material needed	Safe Work Procedures & Proper Material Handling techniques

Attendees (attach another page if needed):

	Print Name	Signature		Print Name	Signature
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

Questions from the crew:

Each Contractor shall conduct a pre-shift meeting at the start of each shift.

Exhibit “C.4” – Lift Pick & Critical Lift Plan Form 1 of 3

Lift Pick & Critical Lifi Plan

GENERAL INFORMATION		
Date of lift:	Project Name:	Lift Location:
Contractor Name:		
Crane Company Name:		
Person responsible for plan & contact info:		
Crane Operator:	Signal Person:	
Crane Rigger:	Crane inspected by:	
Crane Oiler:	Rigging inspected by:	
Designated Lift Leader:	Other:	

CRANE INFORMATION		
Make:	Model:	S/N:
Date of Manufacture:	Size (Capacity in tons):	
Type of crane: ☐ Hydraulic ☐ Friction ☐ Lattice ☐ Truck ☐ Rough Terrain ☐ Crawler		

LOAD
Description of load(s):
Weight of max load (provide manufacturers product data sheets and/or calculations):
Location of load center of gravity (provide manufacturers product data sheet and/or sketch):
How will the load center of gravity be determined:
Will any load be upended? If so, provide stability evaluation from manufacturer or professional engineer:

RIGGING INFORMATION
List rigging components – be specific: manufacturer, description, size, length, capacity, and weight:

CRANE LOCATION & CLEARANCE
Provide a to-scale plot plan showing crane location, adjacent buildings, pipe racks, and other significant obstructions within load swing radius. Indicate direction and span of swing.
Provide a to-scale elevation depicting crane, adjacent structures, and load.
What is the horizontal distance from the crane center pin to the nearest structure?
What is the minimum clearance from boom to highest point of structure during a pick?

Exhibit “C.4” – Lift Pick & Critical Lift Plan Form 2 of 3

Lift Pick & Critical Lift Plan

What is the minimum clearance from load to highest point of structure during a pick?		
What is the minimum distance from boom to load during a pick?		
Will the load or any part of the crane be over any active piping, tanking, or equipment during a pick? Please explain:		
Have underground site utilities been identified and located?		
SET-UP		
Boom angle (degrees):	Distance from Pin (in feet):	
Crane Capacity at set-up configuration (pounds or tons):	Load including rigging is what percentage (%) of rated crane capacity:	
Maximum vertical boom elevation (including erected jib) in feet:	If vertical boom elevation exceeds 200’ above existing site elevation, provide FAA permit number:	
EQUIPMENT and LIFT RELATIONSHIP		
Maximum operating radius (feet):	Planned operating radius (feet):	
Allowable load per load chart (in pounds or tons):	Ratio of lift to allowable load (%):	
Clearance between boom and load (feet and inches):	Clearance to existing facilities (feet):	Clearance to energized power lines (feet):
GROUND STABILITY		
Surface Type: ☐ Bare ground ☐ Asphalt ☐ Concrete	Additional Comments:	
Type of support used: ☐ Mat ☐ Cribbing	***Note: Mats or cribbing will be used on all surfaces***	
Will outriggers be located over underground utilities? ☐ Yes ☐ No If yes, explain protective measures to be taken:		
How will outriggers be configured? ☐ Fully extended ☐ Intermediate and Pinned ☐ Fully retracted		
WEATHER		
Lift will not proceed if wind exceeds (MPH):	Precipitation type: ☐ Rain ☐ Snow ☐ Ice ☐ None	
Cloud type: ☐ Overcast ☐ Clear	Lift conducted: ☐ During daylight ☐ With artificial light	
LIFT AREA RESTRICTIONS		
Area Barricaded: ☐ Yes ☐ No	Equipment swing radius barricaded: ☐ Yes ☐ No	
Warning signs required: ☐ Yes ☐ No	Unnecessary personnel removed from area: ☐ Yes ☐ No	
Will max working radius of boom be within 20’ of an overhead power line: ☐ Yes ☐ No	***If yes, attach JHA outlining how contact hazard will be mitigated.***	

Exhibit “C.4” – Lift Pick & Critical Lift Plan Form 3 of 3

Lift Pick & Critical Lift Plan

COMMUNICATION	
Operator view is unobstructed (pick to set): ☐ Yes ☐ No	Communication used: ☐ Hand signals ☐ Radio ☐ Other: Explain other:

PRE-LIFT SAFETY MEETING
Type of lift: ☐ Load exceeds 75% of load chart capacity for lifting equipment (Critical Pick) ☐ Two or more cranes / booms required to lift ☐ Specialized hoisting rigging equipment used ☐ Load suspended or moved over loaded lined ☐ Other (Specify)
Items discussed:
Non-compliance with any part of this Crane Lift Plan will be grounds for immediate cessation of work along with corrective action which could lead to permanent removal from the site.
Contractor, Rigger and Crane Operator are responsible for the accuracy of all calculations and inspections. Any review conducted by Tilden-Coil is to ensure completion of form only.

SIGNATURES			
Crane Company Responsible Person:			
	Print Name	Signature	Date
Contractor Responsible Person:			
	Print Name	Signature	Date

JOBSITE SAFETY ORIENTATION

PURPOSE:

The Subcontractor Project Orientation Meetings are held prior to the start of any project and are a great way to introduce our Project Team, have Subcontractors introduce themselves, communicate common project procedures and highlight key dates.

PROCEDURE:

Subcontractor Project Orientation Meetings

Subcontractor Project Orientation Meetings are conducted to identify and communicate overall project procedures. These meetings are commonly lead by the Project Manager, with active participation from the other members of the Bernards project team, Owner and Consultants as applicable.

Agenda Template

It is at the discretion of the Project Executive to utilize the Bernards Subcontractor Project Orientation Meeting Template or the B360 Template. The Project Manager shall verify that all Meeting Agendas fully agree with the provisions of the: prime contract(s), general conditions, supplementary conditions, project specifications, safety requirements, site specific requirements as well as any other Owner stipulated project requirements.

Assignment of Meeting Topics

Assign members of the Bernards project team to cover each of the numbered items on the meeting agenda. The Project Manager should review with each of these individuals their expected role in the upcoming meeting, allowing each of them sufficient time to prepare for their presentation. Discuss any suggested modifications to the agenda and edit as necessary.

Collect Related Documents / Forms

During the meeting, there will often be occasions that will lend themselves to displaying key forms and documents. The Project Manager, or an appointed staff member, shall diligently seek out and obtain legible copies of all such documents and make them available for use by the meeting participants.

Meeting Invitations

Establish Invitee List

Invite Subcontractors who have been awarded contracts along with others that are pending execution. In addition to key field personnel (Foreman, Superintendent, Project Manager, etc.), invite members of their office staff to attend the meeting to understand project payment requirements (Certified Payroll, Labor Compliance, etc.) and Safety. In such cases, organize the agenda to allow for their attendance during the early portion of the meeting, which allows for their early dismissal. By providing a detailed explanation of elements such as certified payroll, payment procedures, labor agreements and project safety standards with the Subcontractor representatives, it will often prevent wasted time and effort identifying and correcting problems in the management of our established procedures.

Advertise the Meeting

In order to obtain better attendance at the meeting, it is recommended that the meeting invitations be made a month in advance. In no case, should the invitation be issued with less than two weeks' notice. Where appropriate, send a meeting invite and ensure your space for meeting is reserved.

Distribute Agenda

Send copies of the meeting agenda to all project participants within three business days of the meeting. Where possible, include copies of all relevant related documents.

Project Team Attendance

It is not only Bernards responsibility to schedule the date and time of this meeting, but also to prepare and distribute its agenda as well preside over its proceedings. All Bernards Project Team Member should attend the meeting in order to build trust with our new partners and convey optimism in the group's ability to collaboratively develop solutions to the project challenges that lie ahead.

Reference the Bernards Subcontractor Project Orientation Meeting Agenda Template to be utilized for the meeting. This document identifies the most common administrative elements requiring consideration and definition during the course of such meetings. Absent other direction by the Owner or Designer, this template shall be used to identify the specific agenda and direction of how the variety of topics addressed are to be

administered.

Meeting Preparation

Meetings do more than just communicate our jobsite policies and procedures; they establish impressions with the other members of the project team about our competency and professionalism. Accordingly, all members from our project team must be fully knowledgeable and prepared well in advance of the meeting.

Meeting Procedures

Wherever possible during the meeting, thoroughly explain not only the project requirements relating to each topic, but also the reasons why the procedures were formulated. (People tend to be much more likely to follow procedures when they know that there is a bigger purpose that is being served.) Make sure sufficient time is provided in the agenda to fully explain each issue and answer any related questions.

Project Contact Information Form

Be sure to have the Subcontractor attendees fill out the Project Contact Information - Form. This form is used to record the names and contact numbers of key individuals attending the meeting as well as other project participants.

Record Meeting Minutes

In order to memorialize the information presented at the meeting it is important for the Project Manager to appoint one of the project staff members to keep a written record of all the elements discussed, and any points of clarification made during the meeting. At the conclusion the content of these recorded noted (minutes) are to be reviewed and edited by the Project Manager for distribution to all attendees.

Distribute Meeting Minutes

Within seven days of the Meeting, distribute copies of the approved meeting minutes to all attendees and relevant project participants.

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SECTION 01 50 00

CONSTRUCTION FACILITIES

PART 1- GENERAL

1.1 SECTION INCLUDES

A. Furnishing and installing required temporary facilities as indicated and/or specified as required for proper performance and execution of each Trade Contractor's Contract.

B. Related documents include the General Conditions and Supplemental Conditions.

C. This applies to all trades unless noted otherwise.

1.2 REGULATORY REQUIREMENTS

A. Comply with governing regulations and utility company regulations and recommendations.

B. Comply with pollution and environmental protection regulations for use of water and energy, for discharge of wastes and storm drainage from Project Site, and for control of dust, air pollution and noise.

C. Temporary construction shall conform to requirements of State, County, and Local authorities and underwriters which pertain to operation, health, safety, and fire hazard. Contractor shall furnish and install items necessary for conformance with such requirements, whether or not called for under the separate divisions of these specifications.

1.3 TEMPORARY WATER

A. **The Plumbing and Site Utilities Bid Category Contractor** will ensure there are (8) hose bibs on-site that are operational for the use by the trades during construction. Cost of the water to be paid for by the owner. In the event water from a hydrant is needed, the trade needing the hydrant water will obtain a water meter/backflow preventer for their use. The cost of the water, the meter and backflow will be the responsible of the trade needed the hydrant water. Water source will be from the nearest hydrant. It will be the Prime Contractor's responsibility to transport construction water from the water source to the construction site.

B. Trade Contractor shall only use water from the designated location. Building facility may be used **IF** temporary water is available.

1.4 TEMPORARY SANITARY FACILITIES

A. Temporary chemical type toilet facilities and enclosures will be provided.

1.5 FENCES AND BARRICADES

Temporary fencing, a minimum six feet high with locked entrance gates to enclose the Work/Storage Containers shall be provided to deter unauthorized entry, vandalism and/or theft.

Any Trade Contractor requiring fencing above and beyond what is being provided by the Construction Manager for execution of their work, shall furnish, install and maintain same as required.

A. The County will not provide a security service. If the County opts to provide construction cameras for limited security, the County and Construction Manager shall be held harmless by Prime Contractors and their subcontractors for any and all materials, equipment, tools, etc. which may be stolen, vandalized, or found missing.

B. Refer to Appendix "C" for site fencing and logistics.

1.6 TEMPORARY TELEPHONE SERVICE

A. The County will not provide a phone at the site for Trade Contractor's use. Each contractor shall provide their own cell phone and service.

1.7 CONSTRUCTION EQUIPMENT

A. Trade Contractor shall erect, equip, and maintain construction equipment in strict accordance with applicable statues, laws, ordinances, and regulations of authority having jurisdiction.

B. Trade Contractor shall provide, maintain, and move upon completion of the Work, all temporary rigging, scaffolding, hoisting equipment, rubbish chutes, ramps, stairs, runways, platforms, ladders, railings, and other temporary construction as required for all work hereunder.

1.8 STORAGE

A. Operations of the Trade Contractor, including storage of materials, shall be confined to areas approved by Construction Manager. Trade Contractor shall be liable for damage caused by him during such use of property of the County or other parties. Trade Contractor shall hold the County, Program Manager and Construction Manager along with their respective officers, employees and agents, and the Architect and his employees, free and harmless from liability of any nature or kind arising from any use, trespass, or damage caused by his operations on premises of third persons. Storage facilities shall provide protection of products from excessive cold, heat, moisture, humidity, or physical abuse as specified in the respective sections for the products stored. Each Contractor requiring same shall provide their own temporary storage and security for same.

B. Include cost to move storage bins, trailer, equipment, tools, and materials at storage area at least once for construction phasing.

C. Refer to the construction schedule for when areas are scheduled to be improved and may require storage bins to be removed. Contractor may need to consider other alternatives for storage if space does not permit.

D. Any contractor providing storage for their materials and/or performing staging operations will provide the necessary protection to prevent damage to the existing surfaces.

1.9 TEMPORARY JOB OFFICE

A. The Construction Manager will provide a temporary job office for the Construction Manager's use only. Trade Contractor requiring office space shall provide same ***IF*** space permits. All temporary job offices shall be coordinated with the Construction Manager prior to said office being stored onsite. If a temporary office trailer is permitted for contractor use, the County is not responsible for providing power distribution or phone service to said trailer.

B. Temporary office for County's Inspector shall be provided by the County in accordance with the General Conditions.

1.10 TEMPORARY ELECTRICAL

A. Temporary construction power will be provided by **Electrical Bid Category Contractor**.

1. One 200 amp single phase service for jobsite
2. Temp power boxes ran from the 200 amp service placed every 100 foot. A minimum of 4 boxes will be required per building
3. One 100 amp single phase service for Construction Manager Trailer

4. Any temporary power requirements beyond these provided will be the responsibility of the Contractor requiring same.

5. All welding will be done with self-contained gas powered units.

6. Each Trade Contractor to provide generator power for their operations until temporary power is available or at areas were temporary is not scheduled to be provided.

1.11 TEMPORARY LIGHTING

A. Temporary Lights for general illumination is to be furnish, installed, and maintained by the **Electrical Bid Category Contractor**. Each Trade Contractor shall be responsible to provide and maintain all task lighting as required to perform their scope of work. Each Trade will also be required to re-install and/or replace any of the general illumination lighting installed by the Electrical Bid Category Contractor that the Trade Category Contractor takes down, relocates, modifies, etc.

1.12 TEMPORARY HEAT

A. Temporary heat will be supplied and maintained by the Trade Contractor requiring same.

B. Do not use permanent equipment for temporary heating purposes unless specifically noted otherwise in the Contract Documents.

1.13 TEMPORARY VENTILATION

A. All Contractors shall ventilate enclosed areas to assist cure of materials, dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases as the above may be generated by them.

1.14 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.

B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.

C. Provide protection for plant life and trees designated to remain and for soft and hardscape areas adjacent to work, replace damaged materials as directed by the Architect.

D. Protect owner-owned, vehicular traffic, stored materials, site and structures from damage.

E. Construction workers who communicate with students or staff, except in emergency or safety related situations will be immediately removed from the site.

F. Protect adjacent finishes, and adjacent property from damage.

1.15 NOISE CONTROL

A. Provide methods, means, and facilities for noise control. Comply with all local ordinances.

B. Personal AM/FM radios, IPods, MP3 players, and other media devices are not permitted.

1.16 POLLUTION CONTROL

A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

B. Provide dust control during Trade Contractors operations and continuously until such time that Work is substantially complete.

1.17 EXTERIOR ENCLOSURES

A. Provide temporary weather-tight closure of exterior openings to accommodate acceptable working conditions and protection for materials, to allow for temporary heating and maintenance or required ambient temperatures identified in individual

B. Specification Sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.18 ACCESS ROADS

A. Provide and maintain access to fire hydrants, free of obstructions.

B. Designated existing on-site roads may be used for construction traffic.

C. Refer to temporary fencing plan for construction entrances.

1.19 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

B. Each Trade Contractor onsite shall participate in a weekly cumulative Project clean-up at a minimum one (1) hour every Friday. This will require one (1) worker per trade to participate weekly as directed by the Construction Manager. If a trade does not participate, one worker will be appointed on the trade's behalf at a rate of $125/hour in addition to management and administrative costs.

C. Each applicable Trade Contractor shall remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to the space being enclosed.

D. Each applicable Trade Contractor shall broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.

E. Remove waste materials, debris, and rubbish from site periodically and legally dispose off-site.

1.20 PROJECT IDENTIFICATION

A. A project identification sign may be installed by Construction Manager.

B. No other signs will be permitted.

1.21 STAGING AREAS

A. Coordinate with Construction Manager for location, extent and type of construction staging area.

1.22 PARKING

A. The site is limited in size. Short of unloading of materials, equipment, and crews, on-site parking will not be available. Parking will be off-site on the public street.

1.23 GRAFFITI / VANDALISM

A. Graffiti / vandalism will not be tolerated on any existing or new structure including temporary toilets. Anyone caught defacing any structure will be immediately removed from the site.

1. Temporary toilets with graffiti or those that have been vandalized will be replaced. The expense associated with the replacement will be distributed among all the Trade Contractors on-site.

2. Each Trade Contractor has the sole responsibility of protecting their own work until such work has been accepted by the Owner. Trade Contractor shall be responsible to make all necessary repairs, at their expense, to finish work that has been damaged by graffiti and/or vandalism not accepted by the Owner. The trade contractor shall cover or remove graffiti on their work the day it is discovered.

1.24 NOT USED

A. Not Used

1.25 STAFF AND CREW REQUIREMENTS

A. Staffing Requirements
   1. Trade Contractor shall provide the staffing necessary to ensure the Project is not impacted as a result of being under staffed. Contractor must provide one qualified superintendent, with no less than 5 years of school construction experience.

B. Crew Requirements
   1. Separate working crews will be required and contractor shall take this manpower into consideration when meeting their schedule obligation.

1.26 WATER CONSERVATION

A. Attention is directed to these specifications which require the use of water for the construction of this project. Attention is also directed to state and local ordinances regarding water conservation and storm drain pollution control measures.

B. The Contractor shall, whenever possible and not in conflict with the specifications and ordinances, minimize the use of water during construction of the project. Watering equipment, hose, piping and valves shall be kept in good working order; water leaks shall be

repaired promptly; and washing of equipment, except when necessary for safety or for the protection of the equipment, shall be discouraged. Wash water from such activities shall not be discharged into storm drains.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION NOT USED

END OF SECTION

RIVERSIDE UNIVERSITY HEALTH SYSTEM

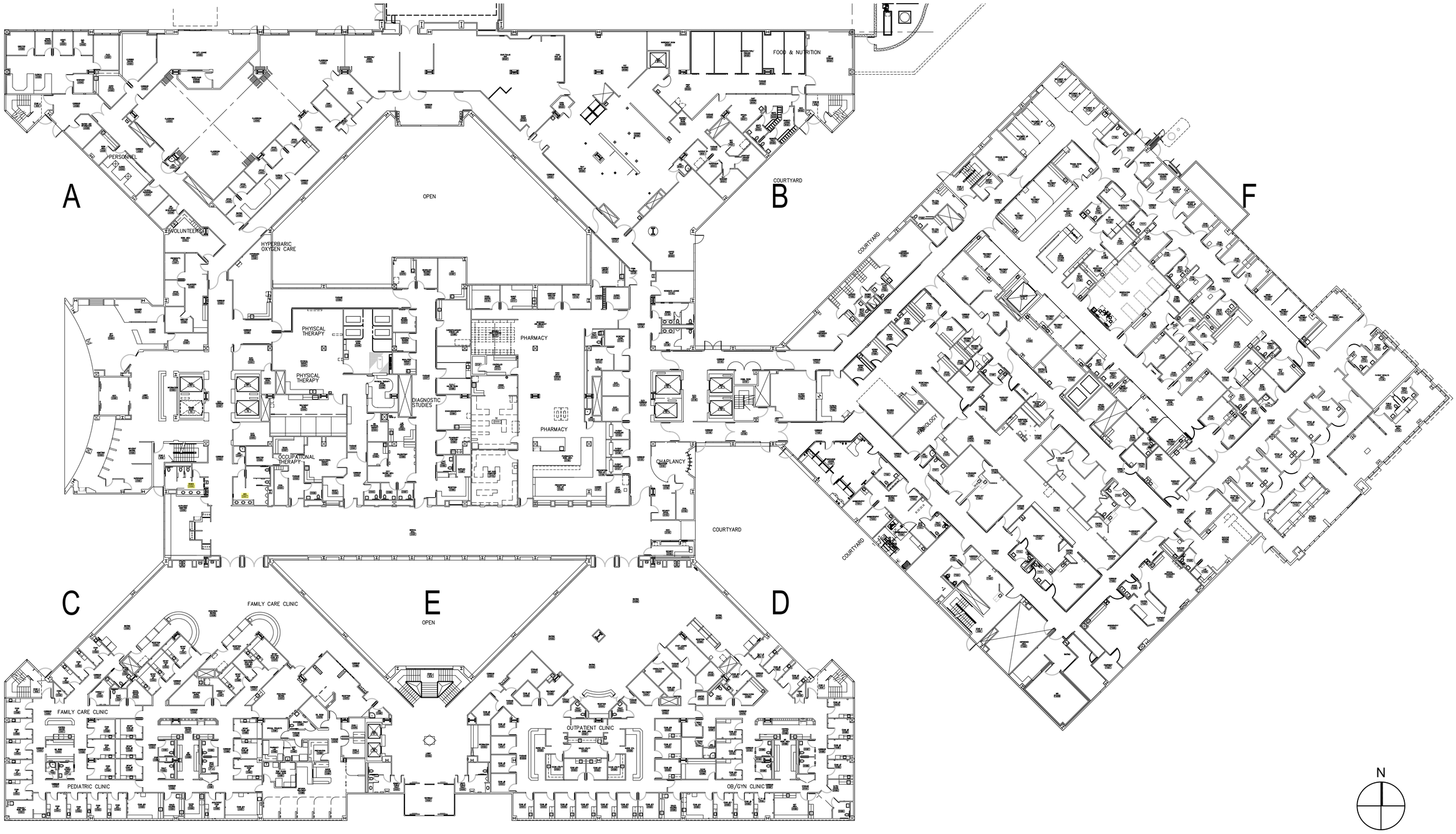
(PROJECT NO. MC08430011869, HCAi NO. S231455-33-00)

CATHETERIZATION LABORATORY SUITE

COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

Appendix C Logistics

Riverside University Health System - Medical Center



RUHS MAIN CAMPUS

26520 Cactus Ave. Moreno Valley, CA 92555

FIRST LEVEL

Notes
First and Last Parking Spaces to be blocked off near lay down area.
Contractors to park in designated area.
If no spaces is available, contractors to park in available spaces around parking lots.

All contractors will be required to relocate the first week of May 2027

Rumble Strips with Rock



SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Following Administrative and Procedural Requirements:
   1. Selection of products for use in Project
   2. Product delivery, storage, and handling.
   3. Manufacturers standard warranties on products.
   4. Special warranties.
   5. Product substitutions.

1.2 RELATED REQUIREMENTS AND SECTIONS

A. Instructions to Bidders: Procedures for requesting substitutions during bidding period.
B. Division 1: Substitution Procedures
C. Section 01 77 00: Project Closeout Procedures; for submitting warranties for contract closeout.
D. Divisions 2 through 33 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

A. Products: Items purchased for incorporating into Work, whether purchased for Project or taken from previously purchased stock. The term “product” includes terms material, equipment, system, and terms of similar intent.
   1. Named Products: Items identified by manufacturer’s product name, including make or model number or other designation, shown or listed in manufacturer’s published product literature that is current as of date of Contract Documents.
   2. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise.
      a. Products salvaged or recycled from other projects are not considered new products.

B. Substitutions: Changes in products, materials, equipment, and methods of construction required by Contract Documents and proposed by Contractor; following are not considered substitutions:
   1. Substitutions requested during bidding period, and accepted by written Addendum prior to opening of bids or award of Contract.
   2. Revisions to Contract Documents requested by Owner or Architect.
   3. Specified options of products and construction methods included in Contract Documents.
   4. Compliance with governing regulations and orders issued by governing authorities.

C. Basis-of-Design Product Specification: Where specific manufacturer’s product is named and accompanied by words “Basis of Design”, including make or model number or other designation, to establish significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers. If only one manufacturer is named, it shall be considered the Basis of Design whether designed as the Basis of Design or not.

D. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for particular product and specifically endorsed by manufacturer to Owner.

E. Special Warranty: Written warranty required by or incorporated into Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.

1.4 SUBMITTALS

A. Substitution Requests: Submit three copies of each request for consideration.
Refer to Specification Section 01 25 00 for Substitution Procedures. The clauses in this Specification is intended to complement the requirements of Specification Section 01 25 00. Where the clauses are in conflict, the more stringent of the two shall apply.

1. Identify product or fabrication or installation method to be replaced.
2. Include Specification Section number and title and Drawing numbers and titles.
    a. Refer to Article 2.02, in this Section.
3. Substitution Request Form: Use form provided the **architect**; other forms will not be accepted.
    a. Requests received without properly completed substitution request form will be rejected without further review.
4. Documentation: Show compliance with requirements for substitutions and following, as applicable:
    a. Statement indicating why specified material or product cannot be provided.
    b. Product identification, including manufacturer's name and address.
    c. Coordination information, including list of changes or modifications needed to other parts of Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
    d. Detailed comparison of significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
    e. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
    f. Structural calculations, where applicable or requested, prepared and signed by Structural Engineer licensed in California.
    g. Samples, where applicable or requested.
    h. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
    i. Material test reports from qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
    j. Research/evaluation reports evidencing compliance with building code in effect for Project, from model code organization acceptable to authorities having jurisdiction.
    k. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for Work, including effect on overall Contract Time.
        1) If specified product or method of construction cannot be provided within Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
    l. Cost information, including proposal of change, if any, in Contract Sum.
    m. Designation of availability of maintenance services, sources of replacement materials.
    n. Contractor's certification that proposed substitution complies with requirements in Contract Documents and is appropriate for applications indicated.
    o. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 01 33 00.
   1. Show compliance with requirements.

1.5 QUALITY ASSURANCE

A. To fullest extent possible, provide products of same kind, from single source.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store and handle products using means and methods that will prevent damage, deterioration and loss, including theft; comply with manufacturer=s written instructions.
   1. Schedule delivery to minimize long term storage at Project Site and to prevent overcrowding of construction spaces.
   2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.
   3. Deliver products to Project Site in undamaged condition in manufacturer's original sealed container, or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
   4. Inspect products on delivery to ensure compliance with Contract Documents, and to ensure products are undamaged and properly protected.
   5. Store products in manner to facilitate inspection and measurement of quantity or counting of units.
   6. Store materials in manner that will not endanger Project structure.
   7. Store products subject to damage by elements under cover in weathertight enclosure above ground, with ventilation adequate to prevent condensation.
   8. Comply with product manufacturer’s written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
   9. Protect stored products from damage.

1.7 PRODUCT WARRANTIES

1. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by Contract Documents.
   1. Manufacturer’s disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of Contract Documents.

2. Special Warranties: Prepare written document that contains appropriate terms and identification, ready for execution.
   1. Submit draft for approval before final execution.
   2. Manufacturer’s Standard Form: Modified to include Project specific information and properly executed.
   3. Refer to Division 2 through 33 Sections for specific content requirements and particular requirements for submitting special warranties.

3. Submittal Time: Comply with requirements in Section 01 77 00.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION

A. General: Provide products that comply with Contract Documents, are undamaged, and unless otherwise indicated, that are new (not previously installed) at time of installation.
   1. Provide products complete with accessories, trim, finish, fasteners, safety guards and other items needed for complete installation and indicated use and effect.
   2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
   3. Owner reserves right to limit selection to products with warranties not in conflict with requirements of Contract Documents.
   4. Where products are accompanied by term “as selected”, Architect will make selection.
   5. Where products are accompanied by term “match sample”, sample to be matched is Architect’s.
   6. Descriptive, performance, and reference standard requirements in Specifications establish salient characteristics of products.
   7. Or Equal: Where products are specified by name and accompanied by term “or equal” or “or approved equal” or “or approved”, comply with provisions in Product Substitutions Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures: Procedures for product selection include following:
   1. Product: Where Specification paragraphs or subparagraphs titled Product name single product and manufacturer, provide product named.
      a. Substitutions may be considered, unless otherwise indicated.
   2. Manufacturer/Source: Where Specification paragraphs or subparagraphs titled Manufacturer or Source name single manufacturers or sources, provide product by manufacturer or from source named that complies with requirements.
      a. Substitutions may be considered, unless otherwise indicated.
   3. Products: Where Specification paragraphs or subparagraphs titled Products introduce list of names of both products and manufacturers, provide one of products listed that complies with requirements.
      a. Where products or manufacturers are specified by name, accompanied by term “or equal”, or “or approved equal” comply with provisions in “Product Substitutions” Article to obtain approval for use of an unnamed product.
   4. Manufacturers: Where Specification paragraphs or subparagraphs titled “Manufacturers” introduce list of manufacturers names, provide product by one of manufacturers listed that complies with requirements.
      a. Where manufacturers are specified by name, accompanied by term “or equal”, or “or approved equal” comply with provisions in Product Substitutions Article to obtain approval for use of an unnamed product.
   5. Product Options: Where Specification paragraph titled Product Options indicate that size, profiles, and dimensional requirements on Drawings are based on specific product or system, provide either specific product or system indicated or comparable product or system by another manufacturer.
      a. Comply with provisions in Product Substitutions Article to obtain approval for use of unnamed product and/or manufacturer.
   6. Basis-of-Design Products: Where Specification paragraphs or subparagraphs titled Basis-of-Design Product are included and also introduce or refer to list of manufacturers names, provide either specified product or comparable product by one of other named manufacturers.
      a. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on product named.
      b. Comply with provisions in Product Substitutions Article to obtain approval for use of unnamed product.
      c. Substitutions may be considered.

7. Visual Matching Specification: Where Specifications require matching established Sample, select product and manufacturer that complies with requirements and matches Architect's sample.
    a. Architect's decision will be final on whether proposed product matches satisfactorily.
    b. If no product available within specified category matches satisfactorily and complies with other specified requirements, comply with provisions of Contract Documents on substitutions for selection of matching product.
8. Visual Selection Specification: Where Specifications include phrase as selected from manufacturer's colors, patterns, textures, or similar phrase, select product and manufacturer that complies with other specified requirements.
    a. Standard Range: Where Specifications include phrase standard range of colors, patterns, textures or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that does not include premium items.
    b. Full Range: Where Specifications include phrase full range of colors, patterns, textures or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that includes both standard and premium items.
9. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with requirements, and are recommended by manufacturer for application indicated.
    a. General overall performance of product is implied where product is specified for specific application.
    b. Manufacturer's recommendations may be contained in product literature, or by manufacturer's certification of performance.

2.2 PRODUCT SUBSTITUTIONS

A. Timing: Substitutions are restricted to before bid opening if stated in the bidding documents. Acceptable substitutions prior to bid shall be communicated **ONLY** through addenda.
    1. Requests for substitutions received after that time may be considered or rejected at discretion of Architect.
    2. Requests for substitutions **MAY** be considered if received within 15 days after award of Contract, subject to specified submittal requirements and following:
        a. Architect will consider request for substitution after commencement of Work, within 15 days after award of Contract, only if specified product or construction method cannot be provided within Contract Time, cannot receive necessary approvals, cannot be provided in manner compatible with or coordinate with other materials or cannot provide required warranty.
        b. Contractor's base bid **MUST** include the specified product. If the substitution is accepted after the Notice of Award, the owner receives full benefit of the cost reduction.
        c. Requests received more than 15 days after award of contract will only be considered in case of substantiated product unavailability, or conditions beyond control of Contractor.

B. Conditions: Contractor's substitution request will be received and considered by Architect when following conditions are satisfied, as determined by Architect; otherwise requests will be returned without action except to record noncompliance with these requirements; burden of proof of merit of proposed substitution is upon proposer.
    1. Extensive revisions to Contract Documents are not required Requested substitution is consistent with Contract Documents and will produce indicated results.
    2. Request is timely, fully documented and properly submitted.
    3. Request is directly related to "or equal" clause or similar language in Contract Documents.
    4. Request is directly related to "or equal" clause or similar language in Contract Documents.
    5. Specified product or construction method cannot be provided within Contract Time.

a. Request will not be considered if product or method cannot be provided as result of failure to pursue Work promptly, failure to identify items requiring long lead times, or failure to coordinate activities properly.

6. Specified product or construction method cannot receive necessary approval by governing authority, and requested substitution can be approved.
7. Substantial advantage is offered Owner, in cost, time, energy conservation, or other considerations of merit, after deducting additional responsibilities Owner must assume.
   a. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner or separate Contractors, and similar considerations.
8. Specified product or construction method cannot be provided in manner that is compatible with other materials, and where Contractor certifies that requested substitution will overcome incompatibility.
9. Specified product or construction method cannot be coordinated with other materials, and where Contractor certifies that requested substitution can be coordinated.
10. Specified product or construction method cannot provide warranty required by Contract Documents and where Contractor certifies that requested substitution provide required warranty.
11. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of Work, is uniform and consistent, is compatible with other products, and is acceptable to contractors involved.

C. Architects Action: If necessary, within one week of receipt of request for substitution, Architect will request additional information or documentation for evaluation of request for substitution.
   1. Within 2 weeks of receipt of request, or one week of receipt of additional information or documentation, whichever is later, Architect will notify Contractor of acceptance or rejection of requested substitution.
   2. Use product specified if Architect cannot make decision on use of proposed substitution within time allocated.
   3. Architect will not be responsible for locating or securing information which is not included in substantiating data.
   4. Architect's decision of acceptance or rejection of requested substitution shall be final.

D. Architect's cost for evaluating substitutions requested by Contractor, including making subsequent revisions to drawings, specifications and other resulting documentation, will be paid by Owner with reimbursement from Contractor by deductive change order.

E. Contractor's submittal and Architect's acceptance of Shop Drawings, Product Data or Samples that relate to construction activities not complying with Contract Documents does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

F. Forms of Acceptance for Substitutions:
   1. During Bidding Process: Addendum
   2. After Award of Contract: Change Order.

PART 3 - EXECUTION NOT USED

END OF SECTION

SECTION 01 73 29

CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes procedural requirements for cutting and patching.

1.3 DEFINITIONS

A. Cutting: Removal of existing construction necessary to permit installation or performance of other Work.

B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.4 QUALITY ASSURANCE

A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.

B. Operational Elements: Do not cut and patch the following operating elements and related components in a manner that results in reducing their capacity to perform as intended or those results in increased maintenance or decreased operational life or safety.

1. Primary operational systems and equipment.
2. Air or smoke barriers.
3. Fire-protection systems.
4. Control systems.
5. Communication systems.
6. Electrical wiring systems.

C. Miscellaneous Elements: Do not cut and patch the following elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.

1. Water, moisture, or vapor barriers.
2. Membranes and flashings.
3. Exterior curtain-wall construction.
4. Equipment supports.
5. Piping, ductwork, vessels, and equipment.
6. Noise- and vibration-control elements and systems.

D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Engineer's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsafe- factory manner.

1.5 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Comply with requirements specified in other Sections of these Specifications.

B. Existing Materials: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of existing materials.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Temporary Support: Provide temporary support of Work to be cut.

B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

D. Existing Services: Where existing services are required to be removed, relocated, or abandoned, bypass such services before cutting to minimize interruption of services to occupied areas.

3.3 PERFORMANCE

A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut existing construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Cutting: Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
   1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
   2. Existing Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
   3. Concrete: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
   4. Excavating and Backfilling: Comply with requirements in the technical specifications where required by cutting and patching operations.
   5. Mechanical and Electrical Services: Where directed by drawings or specifications, cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
   6. Proceed with patching after construction operations requiring cutting are complete.

C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications.

   1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
   2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
   3. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weather tight condition.

END OF SECTION

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SECTION 01 77 00

PROJECT CLOSEOUT

PART 1 – GENERAL

1. DESCRIPTION

A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:

1. Inspection procedures.
2. Project record document submittal.
3. Operating and maintenance manuals submittal.
4. Submittal of warranties.

B. Closeout requirements for specific construction activities are included in the appropriate Sections in the technical specification sections.

C. Refer to section 01 99 99 for an acceptable binder cover page template.

2. SUBSTANTIAL COMPLETION

A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.

1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Price.

    a. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
2. Advise the Construction Manager of pending insurance change-over requirements.
3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
4. Obtain and submit releases enabling the County unrestricted use of the Work and access to services and utilities; include occupancy permits, operating certificates and similar releases.
5. Deliver tools, spare parts, extra stock, and similar items.
6. Complete start-up testing of systems, and instruction of the County's operating and maintenance personnel. Discontinue or change over and remove temporary facilities from the site, along with construction tools, mockups, and similar elements.
7. Complete final clean up requirements.

B. Inspection Procedures: On receipt of request for inspection, the Architect and/or Engineer will either proceed with inspection or advise the Contractor of unfulfilled requirements. The Architect and/or Engineer will prepare the Certificate of Substantial Completion following inspection, or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.

1. The Architect and/or Engineer will repeat inspection when requested and assured that the Work has been substantially completed.

2. Results of the completed inspection will form the basis of requirements for final acceptance.

3. RECORD DOCUMENT SUBMITTALS

A. General: Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Architect and/or Engineer's reference during normal working hours.

B. As-Built Drawings: Produce and maintain a clean, undamaged set of "E" size Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies from the Work as originally shown. Give particular attention to concealed elements that would be difficult to measure and record at a later date.

1. Mark changes to the Documents caused by RFI responses with RFI designation.
2. Mark changes to the Documents caused by Bulletins with Bulletin designation.
3. Mark new information that is important to the County, but was not shown on Contract Drawings or Shop Drawings.
4. Note related Change Order numbers where applicable.
5. Organize As-Built drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.
6. Per Riverside County Building Official Plan Check Requirements, "As- Built" drawing requirements are as follows:
   - As-built drawings are the final set of drawings produced at the completion of a construction project. They include all the changes that have been made to the original construction drawings, including notes, modifications, revisions and any other information that should be included. As-built drawings should not change the design intent but should depict the actual as-built conditions of the completed construction. While the original drawings are typically produced using computer aided design (CAD) software, the as-built drawings should contain handwritten notes, sketches, and changes.
   - When the construction phases of the project / contract are finished a complete set of marked-up redlined drawings will be turned over to EDA Design & Construction for review and approval. All markings shall be on a previous approved set of drawings, signed and stamped by the EOR and Jurisdiction Enforcement Agency. No additional PE seal or signature is required on the as-built drawings. These drawings shall have AS-BUILT DRAWINGS indicated on the title sheet in the title block and on each sheet of submitted as-built drawings along with initial of responsible individual.

C. Record Specifications: Maintain one complete copy of the Project Manual, including addenda, and one copy of other written Construction Documents such as Change Orders and modifications issued in printed form during construction. Mark these documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation. Note related record drawing information and Product Data.

1. Upon completion of the Work, submit record Specifications to the County's Representative for approval and corrections. Upon acceptance, resubmit for the County's use.

D. Record Product Data: Maintain one copy of each Product Data submittal. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site, and from the manufacturer's installation instructions and recommendations. Give particular attention to concealed products and portions of the Work that cannot otherwise be readily discerned later by direct observation. Note related Changes Orders and markup of record drawings and Specifications.

1. Upon completion of markup, submit complete set of record Product Data to the County's Representative for approval and correction. Upon acceptance, resubmit for the County's use.

E. Miscellaneous Record Submittals: Refer to other Specification Sections for requirements of miscellaneous recordkeeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to the County's Representative for approval and correction. Upon acceptance, resubmit for the County's use.

F. Maintenance Manuals: Organize operating and maintenance data into suitable sets of manageable size. Bind properly indexed data in individual heavy-duty 2 inch, 3-ring vinyl covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder. Submit one complete set of original manufacturer's maintenance and operational manuals to the County's Representative for approval and corrections. Upon acceptance, resubmit for the County's use a minimum of four (4) complete original manufacturer's sets. Include the following types of information:

1. Emergency instructions.
2. Spare parts list.
3. Copies of warranties.
4. Wiring diagrams.
5. Recommended "turn around" cycles.
6. Inspection procedures.
7. Shop Drawings and Product Data.
8. Manufacturer Contact Information
9. Prime Contractor Contact Information

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION

3.1 CLOSEOUT PROCEDURES

A. Operating and Maintenance Instructions: Arrange for each installer of equipment that requires regular maintenance to meet with the County's personnel to provide instruction in proper operation and maintenance. If installers are not experienced in procedures, provide instruction by manufacturer's representatives. Include a detailed review of the following items:

1. Maintenance manuals.
2. Record documents.
3. Spare parts and materials.
4. Tools.
5. Lubricants.
6. Fuels.
7. Identification systems.
8. Control sequences.
9. Hazards.
10. Cleaning.
11. Warranties and bonds.

END OF SECTION

SECTION 01 78 36

WARRANTIES AND BONDS

PART 1 - GENERAL

1.1 DESCRIPTION

A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.

B. Refer to the General Conditions for terms of the Contractor's special warranty of workmanship and materials.

C. Provide one (1) year warranty for workmanship, product and materials **unless** noted differently in the respective specification section.

D. Certifications and other commitments and agreements for continuing services to the County are specified elsewhere in the Contract Documents.

E. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

F. Further to Item E above, it is specifically required and acknowledged by this Contractor that warranty periods on all equipment commences from date of **County's acceptance of the equipment and/or from the date of Substantial Completion**, whichever is later. Therefore, startup of equipment and/or the use of equipment during construction shall not be construed as the qualifier for warranty period start.

1.2 DEFINITIONS

A. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the County.

B. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the County.

1.3 WARRANTY REQUIREMENTS

A. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.

B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

C. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the County has benefited from use of the Work through a portion of its anticipated useful service life.

D. County's Recourse: Written warranties made to the County are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the County can enforce such other duties, obligations, rights, or remedies.

1. Rejection of Warranties: The County reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.

E. The County reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entitles required to countersign such commitments are willing to do so.

1.4 SUBMITTALS

A. Submit written warranties to the County's Representative prior to the date certified for Substantial Completion. If the Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Engineer.

1. When a designated portion of the Work is completed and occupied or used by the County, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Engineer within fifteen days of completion of that designated portion of the Work.

B. When a special warranty is required to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the County through the County's Representative for approval prior to final execution.

C. Form of Submittal: At Final Completion compile four (4) copies of each required warranty and bond properly executed by the Contractor, or by the Contractor's subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual. Use a form acceptable to the County.

D. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8½ inch by 11-inch paper.

1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.

2. Identify each binder on the front and the spine with the typed or printed title “WARRANTIES AND BONDS”, the Project title or name, and the name of the Contractor. Refer to section 01 99 00 for an acceptable closeout cover page template.

3. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

PART 2 – PRODUCTS NOT USED

PART 3 – EXECUTION NOT USED

END OF SECTION

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SECTION 01 99 99
FORMS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Certificate of Stored Materials
B. Change Order Request (COR) for Prime Contractors (Contractor to submit sample)
C. Change Order Request (COR) for Subcontractors (Contractor to submit sample)
D. Guarantee Form
E. Safety Orientation Form
F. Submittal Cover Sheet
G. [Reserved]
H. Systems Shutdown / Off Hour Work Request
I. Testing & Inspection Request
J. Time & Material Daily Report - for Added Work (Contractor to submit sample)
K. Closeout Document For (Cover Sheet)
L. Daily Work Template (Contractor to submit sample)
M. Pre Shift Crew Meeting (Contractor to submit sample)

PART 2 – PRODUCTS NOT USED

PART 3 – EXECUTION

3.1 Certificate of Stored Materials

A. This form must be notarized, executed and submitted with Application for Payment when Contractor is billing for stored materials.

3.2 Change Order Request (COR) for Prime Contractors

A. All COR's must be submitted on this form. No other form will be accepted.

3.3 Change Order Request (COR) for Subcontractors

A. All COR's must be submitted on this form. No other form will be accepted.

3.4 Guarantee Form

A. This form must be submitted with the final payment application and provides the Contractor's guarantee that the Work was completed as specified and will remain so.

3.5 Safety Orientation Form

A. The Safety orientation form is included and will be required to be filled out by every tradesman as part of a required onsite orientation held by the Construction Manager.

3.6 Submittal Cover Sheet

A. All submittals shall be submitted on this form. No other form will be accepted. Submittals will be returned to Contractor for compliance.

3.7 SWPPP Inspection Log

A. Required monthly for inspection of Storm Water Pollution Prevention Plan status.

3.8 System Shutdown/Off Hour Work Request

A. This form is used to request Systems Shutdown / After Hours Work. One (1) week notice required.

3.9 Testing & Inspection Request

A. This form must be submitted to the Inspector of Record at least forty-eight (48) hours in advance of any necessary Testing and Inspection on the project.

3.10 Time & Material Daily Report – For Added Work

A. Complete this Form each day for work assigned to a Field Work Directive. All labor, equipment and materials must be identified daily to be considered for a Change Event.

3.11 Closeout Documents Form (Cover Sheet)

A. Contactor must use/submit this form with their closeout package

3.12 Daily Work Report Template

A. This is a sample form only. Contractor may use their own.

3.13 Pre Shift Meeting

A. This must be used by all trades and will be required to be submitted on a daily basis by 8:00AM the day of the work taking place.

END OF SECTION

Certificate of Stored Materials

To: County of Riverside
c/o Bernards Brothers]

The below listed materials, supplies and equipment (hereinafter defined as material) are stored at

_____
Address

and can be inspected upon reasonable notification:

Stored Material Item - Description	Stored Location	Quantity	Invoice Value *

*Invoice copy attached (Attach additional sheets as needed.)
Contractor's Material Cost.....$
Total Cost (Invoice Value Plus Handling Cost).....$

Upon receipt of payment (payment defined as invoiced cost plus material handling cost without overhead and profit) as petitioned by Contractor's Application For Payment No. Item(s) , dated , the undersigned hereby certifies the following:

1. Full, clear and unencumbered title and ownership of the material is transferred, assigned and vested to (County of Riverside).
2. The material is to be held in trust for the benefit of County of Riverside and for the exclusive use of County of Riverside until such time as the materials are incorporated into the work. The Contractor reaffirms his continued obligation to store and protect the material until completion of the work. All cost related to the procuring, transporting, insuring and improving, repairing or leasing facilities for storage of material is the sole cost of the Contractor.
3. A current Certificate of Insurance coverage is attached or presently on file with County of Riverside.
4. The Certificate of Stored Materials shall constitute a Bill of Sale if accompanied by proof of payment for the referenced materials.

As evidence and surety of this obligation and for the protection of County of Riverside, the Contractor (see County of Riverside Contract) will provide and maintain an "ALL RISKS" insurance policy for the invoice value of material. Further, the Contractor agrees to be responsible and accountable for any and all damage to or destruction of the material, insurance coverage notwithstanding.

Contractor:

Sworn to and subscribed before me this
_____ day of _____, _____
Day *Month* *Year*

_____
Notary Public

My commission expires: _____

_____
Company Name

By: _____
Authorized Signature

Title: _____

Date: _____

SAMPLE

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SAMPLE

BERNARDS

Project Safety Standards (Orientation Training)

PROJECT SAFETY STANDARDS – ORIENTATION TRAINING **DATE: _____**

 **EMERGENCY PROCEDURES**	• Key point summary: ○ In the event of a life threating emergency - CALL 911 • Provide the exact location and nature of the emergency (i.e. worker injury, fire, etc.) to 911. • Stay on the phone until 911 has confirmed that you have provided adequate information. • Notify job foreman, immediately. • If evacuation is not required, stay on the scene to assist victims and brief emergency personnel. ○ Emergency Evacuation Procedures: • 3 horn blasts or other designated means will indicate site is to be evacuated in case of emergency such as bomb threat, collapse, toxic release, fire, or other events, etc. • Proceed in a calm, orderly manner to the designated muster/rally point • Report directly to your foreman/superintendent at the muster/rally point for head count and do not leave until instructed. • Other weather (such as wind event) or natural event (such as earthquake) – Evacuate immediately and safely to the designated muster/rally point /shelter location.
 **SCAFFOLD**	• Key point summary: ○ Recognize the types of hazards associated with the scaffold (access, falls, planks, slips, collapse, struck by, electrocution, access doors/ladders, etc.). ○ Proper Use: user training, scaffold tagging system (red, yellow, & green), daily competent person inspection, etc. ○ Understand loading and weight classifications (light, medium, and heavy duty). ○ Scaffold components and proper erection and disassembly; proper qualifications required for Qualified Erectors & Competent Persons. ○ Planks are to be used for its intended purpose.
 **MOBILE EQUIPMENT**	• Key point summary: ○ Equipment must be appropriate for the activity, inspected (daily or prior to each use per manufacturer), maintained, and operated in accordance with manufacturer instruction. ○ All safety features must be in working condition and utilized appropriately including but not limited to back up alarms, seat belts, etc. ○ Defective equipment is to be removed from service and secured so it may not be used by others. ○ Only users that receive training, are certified, and authorized may operate equipment. ○ Equipment speed must be appropriate for the condition and conform to site rules. ○ Spotter must be used when views are obstructed or when there are hazard exposures to the public. ○ Equipment may not be modified. ○ **Powered Industrial Lift** • Be knowledgeable of the manufacturer operator's manual for specific model being used. ○ **Mobile Elevating Work Platforms (MEWPS) - Type 1/Type 2/Type 3** • Employees shall always stand firmly on the floor of the basket and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position. • Personnel shall not exit basket to access work area without proper safeguards in place. • Review proper equipment access / egress. • Handrails and mid-rails shall be used for its intended purpose.
 **FALL PROTECTION**	• Key point summary: ○ Review company policies and procedures, and manufacturer fall protection equipment manual specific to the equipment used. ○ Review includes but not limited to: • Proper equipment selection for the hazard • Various elements of a fall protection system • Inspection elements and frequency • Removal from use Criteria • Common hazards • Proper installation and use. • Training • Storage • Rescue plan

PROJECT SAFETY STANDARDS – ORIENTATION TRAINING **DATE: _____**

 **CONFINED SPACE**	• Key point summary: ○ Confined space: Permit required and non-permit required. ○ Training and Competent Person requirements for Confined Space work. ○ Understand the hazards of confined space including permit required confined space. ○ Work with Bernards to address/plan for confined space scope of work. ○ Methods to isolate, control, or other means to protect personnel from or engaged in confined space activity. ○ Confined space and rescue roles and responsibilities. Including dangers for rescue team.
 **LADDERS**	• Key point summary: ○ Ladder selection for the work activity ○ Nature of fall hazards ○ Ladder stability by ladder type. i.e., weight limits, ground stability, tie off, extending 3ft above surface, stable angle, three points of contact, etc. ○ Inspection criteria ○ Ramps or runways shall not be less than 20" in width, secured and supported against displacement and deflection. Where cleats are used it shall be at least 8" wide and not spaced greater than 14" apart.
 **GENERAL**	**Personal Protective Equipment (PPE)** • Key point summary: ○ 100% Eye protection worn on jobsites. ○ High-visibility clothing shall be worn by all persons on a job site or in an operating plant area. ○ No loose / frayed clothing, sweatpants, shorts; appropriate and functional work shoes/boots shall be worn. Shirts must have sleeves. ○ Nonconductive Hard hats shall be worn at all times. ○ Wear appropriate PPE for the hazard including limitations, inspection criteria, proper use, maintenance, and disposal. ○ PPE is provided for the benefit of the employee and must be inspected, maintained, and utilized in accordance with manufacturer instruction; review manufacturer equipment manual specific to the PPE / equipment personnel will use. **General:** • Key point summary: ○ All workers are empowered with the full authority and responsibility to stop unsafe work practices, identify unsafe / hazardous conditions, stop non-construction personnel and escort them out of the work areas. ○ Assess path of travel for hazards. ○ Understand site specific expectations includes but not limited to: • Disciplinary policy • Planning for safe work –job hazard analysis, hierarchy of controls, pre-task plan, etc. • Communication plan: general and emergency situations • No project personal under the influence or with possession of drugs or intoxicating liquor is allowed on the job. ○ No unruly behavior of any kind is allowed. ○ No possession of any prohibited substances, firearms, weapons, stolen property or other prohibited items on company property or jobsite. ○ No children / animals allowed on the jobsite. ○ No Music Devices. Mobile Electronic Devices / Radios used for jobsite communication purposes only. ○ Follow no smoking rules. ○ Anyone improperly using portable restrooms or writing graffiti will be removed from the job. ○ Report any unsafe and / or unsanitary conditions to the Superintendent. If possible, correct the condition first, and then report. Do not work in the area until the hazard has been corrected. ○ Red tape is used to convey "DANGER – DO NOT ENTER"; NO ONE is to enter without the approval of the employee or entity that erected the barricade, who must advise the entrant of the hazard and wear all required personal protective equipment required for the hazard. ○ Yellow or Yellow/Black tape is used to convey "CAUTION". Personnel are allowed to enter the barricade only after they have read the tag to understand the purpose of the barricade and recognize the hazards within the area.

PROJECT SAFETY STANDARDS – ORIENTATION TRAINING **DATE: _____**

 **HOUSEKEEPING**	• Key point summary: ○ Trash / debris must be cleaned up daily. This includes lunch/break trash. No glass bottles. ○ All extension cords should be properly hung off the ground. If suspending the extension cord is not feasible, then the extension cord should be picked up and put away after use / end of the day. ○ All material should be stored on pallets, rolling carts, rolling racks, etc. so material can be moved as warranted.
 **PROPER LIFTING AND MATERIAL HANDLING**	• Key point summary: ○ Prevention program: Stretch and Flex is recommended to be performed daily by all workers. ○ Proper lifting and material handling procedures • Ask for help with heavy loads, use proper lifting and lowering methods. • Be aware of material features that may cause injuries, including sharp edges, pinch points, etc. • Use mechanical lifting devises (carts, etc.) when necessary and available. • Follow manufacturer's instructions and use proper trained methods for usage.
 **ACCIDENT/ INCIDENT PROCEDURES**	• Key point summary: ○ All injuries / illnesses / incidences / near misses involving workers, visitors, or the general public must be reported immediately to your supervisor. ○ Authorized medical clinics/hospitals within the Medical Provider Network (MPN) will be utilized for treatment, as applicable. ○ All policies and procedures apply if employees are on a return-to-work program.
 **ELECTRICAL**	• Key point summary: ○ Review 100% Ground Fault Circuit Interrupter (GFCI) Protection on our projects at all times for temporary and permanent power. ○ Industrial "Heavy Duty" cords (10, 12 gauge) with proper grounds are to be used at all times. ○ Extension Cords not in use should be rolled up and properly stored. ○ Extension Cords must be protected from sharp edges (i.e.: metal studs, door jams, etc.). ○ Inspect all cords daily before each use. ○ Damaged items must be repaired or removed from the job site. ○ All cords and leads are to be elevated above all main walkways where feasible. ○ All electrical/mechanical systems should be considered live and energized. Partner with your superintendent, foreman, safety personnel, and/or designated personnel to lock out/ tag out prior to work.
 **ENVIORNMENTAL**	• Key point summary: ○ **Heat Illness** • Roles and responsibilities in the prevention, recognition, and response to heat illness symptoms. • Drink plenty of water. Your employer will have water available for you. • Shade is always available. • Know your limitations – notify your supervisor if you have heat illness symptoms or observe symptoms in others. • You are authorized to contact emergency medical services, such as 911, in case of medical emergency. Then, let your supervisor know immediately after. ○ **Cold Illness** • Roles and responsibilities in the prevention, recognition, and response to cold related illness • Common types of cold stress (hypothermia, frostbite, trench foot). • Risk factors (dressing improperly, wet clothing, and exhaustion). • Proper dress includes dressing in layers, waterproof, and insulated clothing. • Emergency procedures for cold stress includes change to dry clothes, move to warm area, cover the body to retain heat, and contact emergency medical services. ○ **Wildfire** • Know your company's program and procedures for state or federally mandated requirements. • Communication hazards. • Understand administrative, engineering and work practice controls. • Wear Personal Protective Equipment when necessary.

	○ **Respiratory** • Respiratory hazards include but not limited to fumes, dusts, mists, vapors, and gases. • Follow your company's procedures for wearing a respirator – mandatory, medical evaluations, fit testing, usage, maintenance, inspection, storage, limitations, etc. • Types of respirators (dust, half face, full face, positive pressure, air supplying respirator, etc.). • Crystalline Silica – health hazards include but not limited to Silicosis, Lung Cancer, and Chronic Obstructive Pulmonary Disease. • Crystalline Silica – ▪ Personnel engaged in a task(s) identified on OSHA Table 1 - fully and properly implement stated controls ▪ Tasks not identified in OSHA Table 1- Personnel shall fully and properly implement exposure control methods. Provide your means and methods for control prior to the start of work. ○ **Noise** • Prevent excessive ambient noise to be generated, including nonworking hours, weekends, and holidays. Use appropriate means to control noise in accordance with applicable Federal, State or local regulatory standards. ○ **Dust, Mists, Vapors, etc.** • Prevent airborne transmission of dust, mists, and vapors including nonworking hours, weekends, and holidays. Use wet suppression or other means to control dust and vapors in accordance with applicable Federal, State or local regulatory standards. ○ **Pandemic Response (COVID, etc.)** • Follow your company's plans/procedures/polices to follow local, state & federal regulations regarding pandemic response. • Understanding: Health concerns; Signs & symptoms; Transmission modes; Sick employee procedures; Prevention/protective measures (including safety equipment); Reporting procedures; Isolation/Quarantine (as necessary); Sanitation and cleanliness; etc. • Work practices: Safety planning; Close proximity/physical distancing (as necessary; Performed work; transportation; etc. ○ **Hazardous Materials (Asbestos, Lead, Contamination, etc.)** • Do not cut, disturb, disassemble or in any way expose the material. • Contact Bernards upon identification.
 **HOT WORK PROCEDURES**	• Key point summary: ○ No open flame, welding, torch cutting, soldering, brazing, or grinding is permitted by any worker(s) without obtaining a "HOT WORK PERMIT." Unless otherwise specified. ○ A portable fire extinguisher must be present within 25' of work. ○ Welding curtains for welding operations when others are working in the area and could be affected by arc flash. ○ Fire Watch for minimum 30 minutes must be conducted after operations are completed unless otherwise specified. ○ Warning signs or barricades (i.e.: warning tape, worker) should be used to protect workers from falling slag, sparks, etc. ○ Non-Combustible back stops should be installed behind all metal cutting saw work stations for stopping / capturing sparks.
 **HAZARD COMMUNICATION**	• Key point summary: ○ Safety Data Sheets are required from your company. ○ Review SDS prior to working with materials and follow PPE guidelines. ○ Chemicals moved from its original container must be labeled properly for identification and hazard prevention. ○ Silica Hazards must be recognized and followed accordingly; follow SDS sheets. ○ Know when and what exposure levels you have when dealing with silica. ○ Refer to your company's respiratory program for any questions or concerns regarding silica.
 **CRANES**	• Key point summary: ○ Keep clear of loads by not standing, walking, or working under an overhead load. ○ Work area shall be controlled for hazards such as swing radius hazard - Do not cross into flagged off areas. ○ Only trained and authorized personnel may operate cranes, rig loads, and/or signal. ○ The use, inspection, set-up, and maintenance of cranes and hoisting equipment shall comply with any state or federally mandated program, including the manufacturer's recommendations and requirements. ○ Crane/Hoisting work must submit pre-lift documents prior to the start of operations. ○ The hoist path for all hoisting operations shall be pre-determined and coordinated with a Bernards' team member to ensure that adequate clearance is given around hoisting operations. ○ Follow Bernards *Crane and Hoisting Equipment* requirements.

PROJECT SAFETY STANDARDS – ORIENTATION TRAINING **DATE: _____**

 **EQUIPMENT PROCEDURES**	• Tool use and are - Key point summary: o Inspect and use according to manufacturer instructions. o Secure broken or damaged tools against use. o Use guards and handles as specified by the manufacturer. o Use trained methods to safeguard against struck by hazards. o **Powder Actuated Tools** • Proper training, certification/authorization is required prior to operating any powder actuated tool. • Never leave the tool unattended or loaded. • Warn others of powder actuated tool use through proper communication and signage.
 **TRENCH/ EXCAVATIONS**	• Key point summary: o Do NOT enter trenches / excavations > 4' without proper "cave in" protection and atmospheric testing. o Cave-in prevention through shoring, benching, sloping, or trench box. o Keep excavated soil (spoils) and other materials at least 2 feet (0.61 meters) Ladders must be used for access/egress for trenches > 4' and within 25' of all workers. o Keep excavated soil (spoils) and other materials at least 2 feet from trench edges, and no more than 3 feet high. o When scaffolding is near excavations partner with foreman, safety personnel or designated personnel to identify hazards and safety measures from trench edges. o Inspections and training must meet all regulatory needs necessary for a safe operation.
 **DRIVER SAFETY**	• Key point summary: o Types of vehicles on construction site: golf cart, work trucks, heavy equipment. o You must be trained and authorized to operate vehicles on site. o Stay alert: actively pay attention to your actions and those of the drivers/individuals around you when you are driving. o Follow Site Speed Limits – Speed should reflect site rules, manufacture instructions, and site conditions. o Use seat belts when provided. o Distracted driving – avoid distractions such as phones, electronic devices, eating while driving etc.
 **LOCKOUT AND ENERGY CONTROL**	• Key point summary: o Know the types of energy that may be released accidently: chemical, electrical, hydraulic, mechanical, pneumatic, thermal, etc. o Where applicable, know and understand the de-energizing procedures for the equipment being used. o Clearly communicate with operators and supervisors who may be affected by isolating the machinery and make them aware of the work being carried out. Ensure other affected understand the lockout procedure. o Establish and follow the lockout procedures for each piece of equipment being worked on.
 **CPR & FIRST AID**	• Key point summary: o CPR / First aid / AED should only be administered by those trained by a recognized authority. o Contact emergency medical services (typically call 911) when necessary. o Your employer shall ensure that there are an adequate number of employees trained as first aid providers at each worksite during each work shift.
 **WORKPLACE VIOLENCE**	• Key point summary: o Understand risk factors for workplace violence. o Prevention strategies such as, but not limited to, policies and procedures for assessing and reporting threats, nonviolent response and conflict resolution, and increased knowledge and awareness of the risk of workplace violence. Follow site and company policy/procedures as required. o Understand your roles and responsibilities
 **ERGONOMICS**	• Key point summary: o Stretch and flex is recommended prior to job start, during breaks, if tension or stress is apparent, after lengthy task duration or extended awkward posture. o Musculoskeletal related activities • Risk factors: Prolonged awkward posture; Repetitive action; Use of excessive force • Mitigation: Use the proper tool for the job; Know your physical limitations; Notify your supervisor regarding risk factor concerns and/or symptoms.

PROJECT SAFETY STANDARDS – ORIENTATION TRAINING **DATE: _____**

SUMMARY

Guiding Criteria – All subcontractors, suppliers, vendors, etc. must follow manufacturer requirements, their safety methods/policies/procedures, and all regulatory needs necessary for a safe operation. If there is another governing body (federal, state, or local) with more restrictive regulations, authority, or a more comprehensive contractual agreement they must comply with the more stringent regulation or agreement.

All subcontractors, suppliers, vendors, etc. are required to have employees trained and compliant with (but not limited to) the following applicable regulatory requirements to their scope of work:

- Cal-OSHA Title 8 & OSHA 29 CFR
- Cal-OSHA Title 8 CCR Subchapter 4 – Construction Safety Orders
- Cal-OSHA Title 8 CCR Subchapter 5 – Electrical Safety Orders
- Cal-OSHA Title 8 CCR Subchapter 7 – General Industry Safety Orders
- OSHA 29 CFR Part 1910 - Safety Standards for General Industry, and all Subparts
- OSHA 29 CFR Part 1926 - Safety Standards for Construction, and all Subparts

Training is only a component of a safe workplace. Employees understand that in order to make training effective, they are to:

- Know and comply with all safety policies, federal, state, local standards, procedures, and manufacturer instruction.
- Actively participate in safety trainings and programs.
- Apply knowledge acquired during training.
- Know and manage your own personal limitations.
- Support a safe environment by immediately addressing unsafe condition(s) so others may not access the area and notify your supervisor in a timely manner.
- Stop any unsafe behaviors and do not contribute to its furtherance.
- Have the authority and obligation to stop any task or operation where the controls and/or hazards related to safety, health and environment are not clearly understood, or concerns about any of the control measures exists. “Stop Work” concerns and questions are to be addressed. Pending resolution, personnel is not to be exposed to hazards.
- Bernards has not/and does not discriminate or retaliate against personnel who have exercised their “Stop Work” authority, nor condone such actions or behaviors.

This information has been clearly explained in a language that is readily understood by me. Any questions that I may have about this document have been answered, and I understand that my employer is available to address future questions and/or concerns.

Printed Name: _____

Signature: _____

Company: _____

Project: _____

GUARANTEE

Guarantee for_____. We hereby guarantee that the _____, which we have installed in _____ has been done in accordance with the Contract Documents, including without limitation, the drawings and specifications, and that the work as installed will fulfill the requirements included in the bid documents. The undersigned and its surety agrees to repair or replace any or all such work, together with any other adjacent work, which may be displaced in connection with such replacement, that may prove to be defective in workmanship or material within a period of **One (1)** year from the date of the Notice of Completion of the above-mentioned structure by the County of Riverside, ordinary wear and tear and unusual abuse or neglect excepted.

In the event the undersigned or its surety fails to comply with the above-mentioned conditions within a reasonable period of time, as determined by the County, but not later than ten (10) days after being notified in writing by the County of Riverside or within forty eight (48) hours in the case of an emergency or urgent matter, the undersigned and its surety authorizes the County of Riverside to proceed to have said defects repaired and made good at the expense of the undersigned and its surety, who will pay the costs and charges therefor upon demand. The undersigned and its surety shall be jointly and severally liable for any costs arising from the County of Riverside's enforcement of this Guarantee.

	Countersigned
_____	_____
(Proper Name)	(Proper Name)
By: _____	By: _____
_____	_____
(Signature of Subcontract or Contractor)	(Signature of General Contractor if for Subcontractor)

Representatives to be contacted for service:

Name: _____

Address: _____

_____

Phone Number:_____

EXAMPLE

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EXAMPLE

JOBSITE SAFETY ORIENTATION

PURPOSE:

The Subcontractor Project Orientation Meetings are held prior to the start of any project and are a great way to introduce our Project Team, have Subcontractors introduce themselves, communicate common project procedures and highlight key dates.

PROCEDURE:

Subcontractor Project Orientation Meetings

Subcontractor Project Orientation Meetings are conducted to identify and communicate overall project procedures. These meetings are commonly lead by the Project Manager, with active participation from the other members of the Bernards project team, Owner and Consultants as applicable.

Agenda Template

It is at the discretion of the Project Executive to utilize the Bernards Subcontractor Project Orientation Meeting Template or the B360 Template. The Project Manager shall verify that all Meeting Agendas fully agree with the provisions of the: prime contract(s), general conditions, supplementary conditions, project specifications, safety requirements, site specific requirements as well as any other Owner stipulated project requirements.

Assignment of Meeting Topics

Assign members of the Bernards project team to cover each of the numbered items on the meeting agenda. The Project Manager should review with each of these individuals their expected role in the upcoming meeting, allowing each of them sufficient time to prepare for their presentation. Discuss any suggested modifications to the agenda and edit as necessary.

Collect Related Documents / Forms

During the meeting, there will often be occasions that will lend themselves to displaying key forms and documents. The Project Manager, or an appointed staff member, shall diligently seek out and obtain legible copies of all such documents and make them available for use by the meeting participants.

Meeting Invitations

Establish Invitee List

Invite Subcontractors who have been awarded contracts along with others that are pending execution. In addition to key field personnel (Foreman, Superintendent, Project Manager, etc.), invite members of their office staff to attend the meeting to understand project payment requirements (Certified Payroll, Labor Compliance, etc.) and Safety. In such cases, organize the agenda to allow for their attendance during the early portion of the meeting, which allows for their early dismissal. By providing a detailed explanation of elements such as certified payroll, payment procedures, labor agreements and project safety standards with the Subcontractor representatives, it will often prevent wasted time and effort identifying and correcting problems in the management of our established procedures.

Advertise the Meeting

In order to obtain better attendance at the meeting, it is recommended that the meeting invitations be made a month in advance. In no case, should the invitation be issued with less than two weeks' notice. Where appropriate, send a meeting invite and ensure your space for meeting is reserved.

Distribute Agenda

Send copies of the meeting agenda to all project participants within three business days of the meeting. Where possible, include copies of all relevant related documents.

Project Team Attendance

It is not only Bernards responsibility to schedule the date and time of this meeting, but also to prepare and distribute its agenda as well preside over its proceedings. All Bernards Project Team Member should attend the meeting in order to build trust with our new partners and convey optimism in the group's ability to collaboratively develop solutions to the project challenges that lie ahead.

Reference the Bernards Subcontractor Project Orientation Meeting Agenda Template to be utilized for the meeting. This document identifies the most common administrative elements requiring consideration and definition during the course of such meetings. Absent other direction by the Owner or Designer, this template shall be used to identify the specific agenda and direction of how the variety of topics addressed are to be

administered.

Meeting Preparation

Meetings do more than just communicate our jobsite policies and procedures; they establish impressions with the other members of the project team about our competency and professionalism. Accordingly, all members from our project team must be fully knowledgeable and prepared well in advance of the meeting.

Meeting Procedures

Wherever possible during the meeting, thoroughly explain not only the project requirements relating to each topic, but also the reasons why the procedures were formulated. (People tend to be much more likely to follow procedures when they know that there is a bigger purpose that is being served.) Make sure sufficient time is provided in the agenda to fully explain each issue and answer any related questions.

Project Contact Information Form

Be sure to have the Subcontractor attendees fill out the Project Contact Information - Form. This form is used to record the names and contact numbers of key individuals attending the meeting as well as other project participants.

Record Meeting Minutes

In order to memorialize the information presented at the meeting it is important for the Project Manager to appoint one of the project staff members to keep a written record of all the elements discussed, and any points of clarification made during the meeting. At the conclusion the content of these recorded noted (minutes) are to be reviewed and edited by the Project Manager for distribution to all attendees.

Distribute Meeting Minutes

Within seven days of the Meeting, distribute copies of the approved meeting minutes to all attendees and relevant project participants.

County of Riverside
MEDICAL CENTER CARDIAC CATHETERIZATION LABORATORY SUITE
Systems Shutdown / Off Hour Work Request

Contractor Name: _____

Bid Category No./Name:_____

Instructions:

Complete this form one (1) week prior to the planned operation. Approved by the Company indicated above or County of Riverside's representative must be received **PRIOR** to executing the requested event. The approval of this request does not in any way authorize or approve additional project costs associated with these activities. This Form is used to assist in planning, scheduling and coordinating construction activities required by the project located on the County of Riverside site without disruption to normal County of Riverside activities.

Date Submitted: _____ Requested Start Date / Time : _____ End Date / Time: _____
Estimated Duration: _____**Hrs**

This Request is for: Site Utility Shutdown ☐ Active Site Utilities Shut Down ☐ Off Hours Work ☐

Utility status during activity: Active ☐ Inactivate ☐ **Construction Trades Involved**: _____

OSHA and **Site** Safety requirements discussed, reviewed and acknowledged to be in place: Yes ☐ No ☐

Event Description in Detail

Scope of Work	
Supervision Requirements	
Location of Work	
Utility / Systems Impacted	
Work to Complete prior to shutdown activities	
Special Materials or Equipment	
Impacted Trades	

Submitted by _____ Title: _____ Contractor: _____

Additional Information Attached: Yes ☐ No ☐

Approvals:

Bernards Brothers Inc By: _____ Title_____ Date: _____

County of Riverside : By: _____ Title_____ Date: _____

EXAMPLE

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EXAMPLE

TESTING AND INSPECTION REQUEST

TO BE SUBMITTED 24 HOURS IN ADVANCE

Request No. _____ **Date of Issuance:** _____

County of Riverside

Contractor: _____ Inspection Required By:_____
(DATE AND TIME)

P. O. No.: _____ Inspection Required By:_____
(LAB, DSA INSPECTOR, OTHER)

Contract For: _____ Engineer / Architect: _____

We are hereby requesting the following Test and / or Inspection:

Description of Test / Inspection required:

_____

_____-

Method of Testing and Inspection Performed:

Testing and Inspection Performed by:

☐ Testing and Inspection Laboratory
☐ DSA Inspector
☐ Project Superintendent
☐ Other

Results of Tests / Inspection:

Attachments / supporting documents:

_____

☐ Contractor is hereby released to proceed with work in area(s) indicated above
☐ Contractor is hereby ordered to correct work as described above before proceeding with work in areas(s) indicated above
☐ Other:_____

_____

Date: _____

EXAMPLE

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EXAMPLE

MEDICAL CENTER CARDIAC CATHETERIZATION LABORATORY SUITE County of Riverside

CLOSEOUT DOCUMENTS FOR:

SPECIFICATION SECTION(S): _____

DATE:_____

- **Bid Category Contractor #:** _____
- **Submitted By**: _____

Prepared by: _____
Verified for Completeness by: _____
Signature/Date: _____

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Riverside University HEALTH SYSTEM

RUHS – Facilities, Design and Development
Daily Construction Report

Project: _____
HCAI #: _____ RUHS Project #: _____
Report No. _____ Date: _____
Weather: _____ Temp. Max ____ °F Min ____ °F Precipitation: _____

Contractor: _____ Superintendent: _____
Address: _____ Phone #: _____
_____

Quantity:	Contractor/Subcontractor Personnel

Special Equipment: _____

Work Performed: _____

Action Items: _____

Area of work: _____

Safety: _____

Deliveries: _____

Photos of Work Performed

BID AND CONTRACT DOCUMENTS 3 of 3

FOR

PROJECT No. MC08430011869

CARDIAC CATHETERIZATION LABORATORY

Riverside University Health System Medical Center
26520 Cactus Ave, Moreno Valley, CA 92555

Los Angeles Corporate
555 First Street
San Fernando, CA 91340
T 818 898 1521
F 818 361 9208

RIVERSIDE UNIVERSITY HEALTH SYSTEM

(PROJECT NO. MC08430011869, HCAi NO. S231455-33-00)

MEDICAL CENTER CARDIAC CATHETERIZATION LABORATORY SUITE

COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

APPENDIX "A"
CONTRACT DOCUMENT LISTING

Bernards

Printed on Thu Jul 31, 2025 at 07:13 am PDT

Job #: 1867-MS RUHS-Medical Center Cardiac Catheterization Laboratory Suite
26520 Cactus Avenue
Moreno Valley, California 92555

Phase 1 and 2 - Current Drawings

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
General					
GI001	GENERAL PROJECT INFORMATION	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
GI002	SYMBOLS, SHEET INDEX, ABBREVIATION	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
GI003	ACCESSIBILITY NOTES AND DIAGRAMS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
GI004	ADA TOILET FIXTURE AND SHOWER STANDARDS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
GI101	EXISTING LIFE SAFETY PLANS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
GI102	LIFE SAFETY PLAN	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
GI200	SHEET NUMBER	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
Demolition					
AD101	PHASING PLAN - LEVEL 1 - DEMO - PHASE 1 (not used)	2	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AD102	PHASING PLAN - LEVEL 1 - DEMO - PHASE 2 (not used)	1	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AD111	PARTIAL FLOOR PLAN - LEVEL 1 - DEMO	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AD112	PARTIAL FLOOR PLAN - LEVEL 2 & 3 - DEMO	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AD121	PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - DEMO	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AD151	PHASING PLAN - LEVEL 1 - FLOOR PLAN - DEMO	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AD152	PHASING PLAN - LEVEL 1 - REFLECTED CEILING PLAN - DEMO	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
Structural					
S001	GENERAL NOTES 1	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S002	GENERAL NOTES 2	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S003	TYPICAL DETAILS	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
S111	LEVEL 1 - PARTIAL FRAMING & FLOOR PLAN	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S112	LEVEL 2 - PARTIAL FRAMING PLAN	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S113	PARTIAL THIRD LEVEL FRAMNG PLAN	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S211	ENLARGED PLANS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S501	DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S502	DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S503	ANCHORAGE DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S504	ANCHORAGE DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S505	ANCHORAGE DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S506	ANCHORAGE DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S507	ANCHORAGE DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S508	ANCHORAGE DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S509	SECTIONS AND DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
Architectural					
AE110	PARTIAL FLOOR PLAN - LEVEL LOWER -EXISTING CONDITION	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE111	PARTIAL FLOOR PLAN - LEVEL 1 - REMODEL	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE112	PARTIAL FLOOR PLAN - LEVEL 2 - REMODEL AND PARTIAL ROOF PLAN	2	07/28/2025	07/31/2025	Addendum 2 (07/28/25)
AE121	PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - REMODEL	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE131	IMAGING EQUIPMENT ENLARGED PLAN - CATH LAB	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE132	IMAGING EQUIPMENT ENLARGED REFLECTED CEILING PLAN - CATH LAB	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE141	SHIELDING PLAN - LEVEL 1 - CATH LABS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE151	PHASING PLAN - LEVEL 1 - FLOOR PLAN - REMODEL	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE152	PHASING PLAN - LEVEL 1 - REFLECTED CEILING PLAN - REMODEL	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE221	ENLARGED REMODEL CEILING PLAN	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE301	PARTIAL BUILDING SECTION @ CATH LAB - EAST/WEST	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE302	PARTIAL BUILDING SECTION @ CATH LAB - NORTH/SOUTH	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE401	ENLARGED PLANS & ELEVATIONS - WAITING/OFFICE, STAFF LOUNGE AND LOCKERS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE402	ENLARGED PLANS & ELEVATIONS - CATH LAB, CONTROL AND EQUIP RM	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE403	ENLARGED PLANS & ELEVATIONS - PRE/POST PROCEDURE AREA	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE404	ENLARGED PLANS & ELEVATIONS - HYPERBARIC CHAMBER	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE511	PARTITION TYPES	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE512	DETAILS - PARTITIONS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE513	DETAILS - PARTITIONS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE514	DETAILS - PARTITIONS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE515	DETAILS - PARTITIONS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE516	DETAILS - PARTITION	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE517	DETAILS - PARTITION	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE518	DETAILS - CEILINGS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE519	DETAILS - CEILINGS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE519.A	CEILING DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE520	DETAILS - CEILINGS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE531	UL DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE532	UL DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE533	UL DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE534	UL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE535	UL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE536	UL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE541	DETAILS - MISCELLANEOUS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE551	DETAILS - DOOR AND WINDOW	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE552	DETAILS - DOORS	2	07/28/2025	07/31/2025	Addendum 2 (07/28/25)

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
AE561	DETAILS - CASEWORK SECTIONS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE562	DETAILS - CASEWORK SECTIONS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE601	DOOR SCHEDULE, DOOR TYPES, AND FRAMES	2	07/28/2025	07/31/2025	Addendum 2 (07/28/25)
AE602	CASEWORK ELEVATION TYPES	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EC 97911-281	2000T Terrace Doors	0	07/28/2025	07/31/2025	Addendum 2 (07/28/25)
Notes	Addendum 2	0	07/28/2025	07/31/2025	Addendum 2 (07/28/25)
OSH-FD-303A R04.35	Testing, Inspection, and Observation	0	05/08/2024	05/16/2024	TIO RUHS S231455-33-00 (05/08/24)
Interior					
IE101	FLOOR FINISH PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
IE102	WALL FINISH PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
IE131	FURNITURE PLAN - ZONE A	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
IE132	FURNITURE PLAN - ZONE B	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
IE133	FURNITURE PLAN - ZONE C	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
IE601	FINISH SCHEDULE AND SCHEDULE FOR FINISHES	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
Equipment					
EQ001	ABBREVIATIONS, GENERAL NOTES. AND MOUNTING HEIGHTS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EQ101A	EQUIPMENT PLAN - AREA A	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EQ101B	EQUIPMENT PLAN - AREA B	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EQ401	CATH LAB ENLARGED EQUIPMENT PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EQ701	MEDICAL EQUIPMENT SCHEDULE	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EQ702	MEDICAL EQUIPMENT SCHEDULE	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
Plumbing					
PI001	PLUMBING LEAD SHEET	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE100	LOWER LEVEL - PLUMBING PLAN - A	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE101	SHEET 619.00 NAME BIOMEDICAL F0064 979.05 ELEC. EQUIP.	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE111	LEVEL 1 - PLUMBING PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE113	LEVEL 3 - PLUMBING ROOF PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE151	LEVEL 1 - PLUMBING PHASING PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE201	PLUMBING ENLARGED PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE202	PLUMBING ENLARGED PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE501	PLUMBING DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE601	PLUMBING SCHEDULES	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PD110	LOWER LEVEL - PLUMBING DEMOLITION PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PD111	LEVEL 1 - PLUMBING DEMOLITION PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PD151	LEVEL 1 - PLUMBING DEMOLITION PHASING PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
Mechanical					

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
MI001	MECHANICAL LEAD SHEET	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME101	LEVEL 1 - ZONE PLAN	https://bernards.egnyte.com/navigate/file/c6c14d1f-96f2-47f1-911a-50721bf6246b	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME211	MECHANICAL ENLARGED PLAN REMODEL PHASE 1 - LEVEL 1 - NORTH	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
ME212	MECHANICAL ENLARGED PLAN REMODEL PHASE 1 - LEVEL 1 - SOUTH	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME213	MECHANICAL ENLARGED PLAN - LEVEL 3 - ROOF	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME214	MECHANICAL ENLARGED PLAN REMODEL PHASE 2 - LEVEL 1	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME311	MECHANICAL ENLARGED PLAN - SECTION VIEWS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME501	MECHANICAL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME502	MECHANICAL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME503	MECHANICAL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME601	MECHANICAL AIR BALANCE	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME602	MECHANICAL CONTROLS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME603	MECHANICAL CONTROLS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME604	MECHANICAL SCHEDULES	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
MD111	LEVEL 1 - MECHANICAL DEMOLITION PHASE 1 PLAN - BYPASS DUCTWORK & WORK OUTSIDE OF REMODEL SHOWN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
MD112	MECHANICAL DEMOLITION PHASE 2 PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
MD211	LEVEL 2 - MECHANICAL DEMOLITION PLAN - BYPASS DUCTWORK & PHASE 1 NEW MECHANICAL PLAN BC2	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME210	MECHANICAL ENLARGED PLAN REMODEL - LOWER LEVEL	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
Electrical					
EI001	ELECTRICAL LEAD SHEET	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EI002	ELECTRICAL TELECOMM LEAD SHEET	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EI003	ELECTRICAL TELECOMM RESPONSIBILITY MATRIX	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE100	BUILDING OVERALL ELEC FLOOR PLANS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE111	PHASING PLAN - LEVEL 1 - ELECTRICAL POWER & FIRE ALARM PLAN - REMODEL	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE112	PHASING PLAN - LEVEL 1 - ELECTRICAL LIGHTING PLAN - REMODEL	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE113	PHASING PLAN - LEVEL 1 - ELECTRICAL TELECOMM PLAN - REMODEL	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE114	ROOF - ELECTRICAL POWER PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE201	ELECTRICAL TELECOMM ENLARGED PLANS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE202	ELECTRICAL TELECOMM ENLARGED PLANS	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
EE203	ELECTRICAL TELECOMM ENLARGED PLANS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE501	ELECTRICAL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE502	ELECTRICAL TELECOMM DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE503	ELECTRICAL TELECOMM DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE504	ELECTRICAL TELECOMM DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE505	ELECTRICAL TELECOMM DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE601	ELECTRICAL DIAGRAMS	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
EE602	ELECTRICAL TELECOMM RISER DIAGRAM	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE603	ELECTRICAL TELECOMM RISER DIAGRAM & SCHEDULE	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE604	ELECTRICAL PANEL SCHEDULES	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
EE605	ELECTRICAL PANEL SCHEDULES	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE606	ELECTRICAL SCHEDULES	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ED151	PHASING PLAN - LVL 1 - ELEC POWER PLAN - DEMO	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ED152	PHASING PLAN - LVL 1 - ELEC LIGHTING PLAN - DEMO	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE112A	PHASING PLAN - LEVEL 1 - ELECTRICAL LIGHTING EGRESS PLAN - REMODEL	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
Reference (Philips Cath Lab)					
R1 A0L	CATH LAB 1 - PHILIPS - EQUIPMENT LEGEND	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 A0N	CATH LAB 1 - PHILIPS - GENERAL NOTES	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 A01	CATH LAB 1 - PHILIPS - SITE LAYOUT	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 A02	CATH LAB 1 - PHILIPS - EQUIPMENT LAYOUT	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 A03	CATH LAB 1 - PHILIPS - ELEVATION VIEW	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD1	CATH LAB 1 - PHILIPS - TRANSPORT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD2	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD3	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD4	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD5	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD6	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD7	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 C01	CATH LAB 1 - PHILIPS - COVER SHEET	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 CHK	CATH LAB 1 - PHILIPS - CHECKLIST	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 E0N	CATH LAB 1 - PHILIPS - ELECTRICAL NOTES	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 E01	CATH LAB 1 - PHILIPS - ELECTRICAL LAYOUT	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 E02	CATH LAB 1 - PHILIPS - RACEWAY & CONDUIT INFO	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips -

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
					Provisional (05/27/22)
R1 E03	CATH LAB 1 - PHILIPS - RACEWAY & CONDUIT INFO	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 E04	CATH LAB 1 - PHILIPS - RACEWAY & CONDUIT INFO	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 ED1	CATH LAB 1 - PHILIPS - ELECTRICAL DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 ED2	CATH LAB 1 - PHILIPS - ELECTRICAL DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 ED3	CATH LAB 1 - PHILIPS - ELECTRICAL DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 ED4	CATH LAB 1 - PHILIPS - ELECTRICAL DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 EL1	CATH LAB 1 - PHILIPS - ELECTRICAL LEGEND	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 EL2	CATH LAB 1 - PHILIPS - ELECTRICAL LEGEND	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 N01	CATH LAB 1 - PHILIPS - REMOVE SERVICE NETWORK	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 N02	CATH LAB 1 - PHILIPS - REMOVE SERVICE NETWORK	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 S0L	CATH LAB 1 - PHILIPS - SUPPORT LEGEND	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 S0N	CATH LAB 1 - PHILIPS - SUPPORT NOTES	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 S01	CATH LAB 1 - PHILIPS - SUPPORT LAYOUT, FLOOR & WALL	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 S02	CATH LAB 1 - PHILIPS - SUPPORT, LAYOUT, CEILING	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 S03	CATH LAB 1 - PHILIPS - SUPPORT ALYOUT, CEILING	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 SD1	CATH LAB 1 - PHILIPS - SUPPORT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 SD2	CATH LAB 1 - PHILIPS - SUPPORT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 SD3	CATH LAB 1 - PHILIPS - SUPPORT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 A0L	CATH LAB 2 - PHILIPS - EQUIPMENT LEGEND	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 A0N	CATH LAB 2 - PHILIPS - GENERAL NOTES	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 A01	CATH LAB 2 - PHILIPS - SITE LAYOUT	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 A02	CATH LAB 2 - PHILIPS - EQUIPMENT LAYOUT	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips -

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					Provisional (05/27/22)
R2 A03	CATH LAB 2 - PHILIPS - ELEVATION VIEW	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD1	CATH LAB 2 - PHILIPS - TRANSPORT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD2	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD3	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD4	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD5	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD6	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD7	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 CHK	CATH LAB 2 - PHILIPS - CHECKLIST	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 CO1	CATH LAB 2 - PHILIPS - COVER SHEET	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 E0N	CATH LAB 2 - PHILIPS - ELECTRICAL NOTES	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 E01	CATH LAB 2 - PHILIPS - ELECTRICAL LAYOUT	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 E02	CATH LAB 2 - PHILIPS - RACEWAY & COUNDUIT INFO	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 E03	CATH LAB 2 - PHILIPS - RACEWAY & CONDUIT INFOR	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 E04	CATH LAB 2 - PHILIPS - RACEWAY & CONDUIT INFO	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 ED1	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 ED2	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 ED3	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 ED4	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 EL1	CATH LAB 2 - PHILIPS - ELECTRICAL LEGEND	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 EL2	CATH LAB 2 - PHILIPS - ELECTICAL LEGEND	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 N01	CATH LAB 2 - PHILIPS - REVOE SERVICE NETWORK	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips -

Bernards

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Job #: 1867-MS RUHS-Medical Center Cardiac Catheterization Laboratory Suite
26520 Cactus Avenue
Moreno Valley, California 92555

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
					Provisional (05/27/22)
R2 N02	CATH LAB 2 - PHILIPS - REMOVE SERVICE NETWORK	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 S0L	CATH LAB 2 - PHILIPS - SUPPORT LEGEND	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 S0N	CATH LAB 2 - PHILIPS - SUPPORT NOTES	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 S01	CATH LAB 2 - PHILIPS - SUPPORT LAYOUT, FLOOR & WALL	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 S02	CATH LAB 2 - PHILIPS - SUPPORT LAYOUT, CEILING	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 S03	CATH LAB 2 - PHILIPS - SUPPORT LAYOUT, CEILING	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 SD1	CATH LAB 2 - PHILIPS - SUUPPORT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 SD2	CATH LAB 2 - PHILIPS - SUPPORT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 SD3	CATH LAB 2 - PHILIPS - SUPPORT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)

Current Specifications

Number	Description	Revision	Issued Date	Received Date	Set
1 - Unknown					
1	Default Section	0	08/16/24	08/22/24	TIO
01 - General Requirements					
00 01 07	Seals Page	1	08/16/24	08/22/24	Specification HACi Approved
047-100	Project Manual	2	04/30/25	05/12/25	Addendum 1
000110	Table of Contents	1	08/16/24	08/22/24	Specification HACi Approved
02 - Demolition					
02	Existing Conditions	1	08/16/24	08/22/24	Specification HACi Approved
02 41 20	SELECTIVE BUILDING DEMOLITION	1	08/16/24	08/22/24	Specification HACi Approved
03 - Concrete					
03	Concrete	1	08/16/24	08/22/24	Specification HACi Approved
03 10 00	CONCRETE FORMWORK	1	08/16/24	08/22/24	Specification HACi Approved
03 20 00	CONCRETE REINFORCING	1	08/16/24	08/22/24	Specification HACi Approved
03 25 00	CONCRETE ANCHORS IN CURED CONCRETE	1	08/16/24	08/22/24	Specification HACi Approved
03 30 00	CAST-IN-PLACE CONCRETE	1	08/16/24	08/22/24	Specification HACi Approved
03 54 16	HYDRAULIC CEMENT UNDERLAYMENT	1	08/16/24	08/22/24	Specification HACi Approved
03 60 00	GROUT AND DRY PACK	1	08/16/24	08/22/24	Specification HACi Approved
04 - Masonry					
05 - Metals					
05	METALS	1	08/16/24	08/22/24	Specification HACi Approved
05 12 00	STRUCTURAL STEEL	1	08/16/24	08/22/24	Specification HACi Approved
05 40 00	COLD-FORMED METAL FRAMING	1	08/16/24	08/22/24	Specification HACi Approved
05 50 00	METAL FABRICATIONS	1	08/16/24	08/22/24	Specification HACi Approved
05 50 10	INTERIOR METAL FABRICATIONS	1	08/16/24	08/22/24	Specification HACi Approved
06 - Wood, Plastics, and Composites					
06	WOOD, PLASTI CS, AND COMPOSITES	1	08/16/24	08/22/24	Specification HACi Approved
06 10 53	MISCELLANEOUS ROUGH CARPENTRY	1	08/16/24	08/22/24	Specification HACi Approved
06 41 19	PLASTIC LAMINATE-CLAD WOOD CASEWORK	1	08/16/24	08/22/24	Specification HACi Approved
07 - Thermal and Moisture Protection					
07	THERMAL AND MOISTURE PROTECTI ON	1	08/16/24	08/22/24	Specification HACi Approved
07 01 56	MEMBRANE ROOFING MODIFICATIONS	1	08/16/24	08/22/24	Specification HACi Approved
07 41 13	METAL ROOF PANELS	1	08/16/24	08/22/24	Specification HACi Approved
07 84 00	FIRESTOPPING	1	08/16/24	08/22/24	Specification HACi Approved

Number	Description	Revision	Issued Date	Received Date	Set
07 92 10	INTERIOR JOINT SEALANTS	1	08/16/24	08/22/24	Specification HACi Approved
08 - Openings					
08	OPENI NGS	1	08/16/24	08/22/24	Specification HACi Approved
08 12 13	STANDARD HOLLOW METAL FRAMES	1	08/16/24	08/22/24	Specification HACi Approved
08 13 13	STANDARD HOLLOW METAL DOORS	1	08/16/24	08/22/24	Specification HACi Approved
08 14 24	PLASTIC LAMINATE-FACED WOOD DOORS	1	08/16/24	08/22/24	Specification HACi Approved
08 17 13	INTEGRATED DOOR ASSEMBLIES	1	08/16/24	08/22/24	Specification HACi Approved
08 31 16	ACCESS PANELS	1	08/16/24	08/22/24	Specification HACi Approved
08 42 43	ICU-CCU ENTRANCES	1	08/16/24	08/22/24	Specification HACi Approved
08 71 00	DOOR HARDWARE	1	08/16/24	08/22/24	Specification HACi Approved
08 71 13	AUTOMATIC DOOR OPERATORS	1	08/16/24	08/22/24	Specification HACi Approved
08 81 10	INTERIOR GLASS GLAZING	1	08/16/24	08/22/24	Specification HACi Approved
08 83 13	MIRRORED GLASS	1	08/16/24	08/22/24	Specification HACi Approved
09 - Finishes					
09	FINISHES	1	08/16/24	08/22/24	Specification HACi Approved
09 05 16	PREPARATION OF CONCRETE SUBSTRATES FOR FINISH FLOORING	1	08/16/24	08/22/24	Specification HACi Approved
09 22 16	LIGHTGAGE METAL FRAMING	1	08/16/24	08/22/24	Specification HACi Approved
09 22 26	METAL SUSPENSION SYSTEMS	1	08/16/24	08/22/24	Specification HACi Approved
09 28 15	GMF GYPSUM TILE BACKING BOARD	1	08/16/24	08/22/24	Specification HACi Approved
09 29 00	GYPSUM BOARD	1	08/16/24	08/22/24	Specification HACi Approved
09 51 13	ACOUSTICAL PANEL CEILINGS	1	08/16/24	08/22/24	Specification HACi Approved
09 65 13	RESILIENT BASE AND ACCESSORIES	1	08/16/24	08/22/24	Specification HACi Approved
09 65 16	RESILIENT SHEET FLOORING	1	08/16/24	08/22/24	Specification HACi Approved
09 65 23	SECTION 09 65 23 – RESILIENT PLANK FLOORING	1	08/16/24	08/22/24	Specification HACi Approved
09 81 33	ACOUSTICAL INSULATION, SEALANTS, AND ACCESSORIES	0	08/16/24	08/22/24	Specification HACi Approved
09 91 00	Painting	1	08/16/24	08/22/24	Specification HACi Approved
09 96 13	Abrasion-Resistant Coatings	1	08/16/24	08/22/24	Specification HACi Approved
09 97 23	Concrete and Masonry Coatings	1	08/16/24	08/22/24	Specification HACi Approved
10 - Specialties					
10	SPECIALTIES	1	08/16/24	08/22/24	Specification HACi Approved
10 11 16	Markerboards	1	08/16/24	08/22/24	Specification HACi Approved
10 14 13	REGULATORY SIGNAGE	0	08/16/24	08/22/24	Specification HACi Approved
10 21 33	CUBICLE CURTAINS AND TRACK	0	08/16/24	08/22/24	Specification HACi Approved
10 26 00	Wall and Door Protection	1	08/16/24	08/22/24	Specification HACi Approved
10 28 13	Toilet Accessories	1	08/16/24	08/22/24	Specification HACi Approved
10 28 14	COMMERCIAL SHOWER ACCESSORIES	0	08/16/24	08/22/24	Specification HACi Approved
10 44 00	Fire Protection Specialties	1	08/16/24	08/22/24	Specification HACi Approved

Number	Description	Revision	Issued Date	Received Date	Set
10 51 13	Metal Lockers	1	08/16/24	08/22/24	Specification HACi Approved
11 - Equipment					
11	EQUIPMENT	1	08/16/24	08/22/24	Specification HACi Approved
11 31 10	KITCHENETTE APPLIANCES	0	08/16/24	08/22/24	Specification HACi Approved
12 - Furnishings					
12	FURNISHINGS	1	08/16/24	08/22/24	Specification HACi Approved
12 24 13	Roller Window Shades	1	08/16/24	08/22/24	Specification HACi Approved
12 36 63	SOLID SURFACE MATERIAL COUNTERTOPS	0	08/16/24	08/22/24	Specification HACi Approved
13 - Special Construction					
13	SPECIAL CONSTRUCTION	1	08/16/24	08/22/24	Specification HACi Approved
13 49 13	Integrated X-Ray Shielding Assemblies	1	08/16/24	08/22/24	Specification HACi Approved
22 - Plumbing					
22	PLUMBING	1	08/16/24	08/22/24	Specification HACi Approved
22 05 00	Common Work Results for Plumbing	1	08/16/24	08/22/24	Specification HACi Approved
22 05 10	PLUMBING DEMOLITION AND ALTERATIONS	0	08/16/24	08/22/24	Specification HACi Approved
22 05 19	Meters and Gages for Plumbing Piping	1	08/16/24	08/22/24	Specification HACi Approved
22 05 23	General-Duty Valves for Plumbing Piping	1	08/16/24	08/22/24	Specification HACi Approved
22 05 29	Hangers and Supports for Plumbing Piping and Equipment	1	08/16/24	08/22/24	Specification HACi Approved
22 05 49	SEISMIC RESTRAINT FOR PLUMBING PIPING AND EQUIPMENT	0	08/16/24	08/22/24	Specification HACi Approved
22 05 53	Identification for Plumbing Piping and Equipment	1	08/16/24	08/22/24	Specification HACi Approved
22 07 00	Plumbing Insulation	1	08/16/24	08/22/24	Specification HACi Approved
22 08 00	Commissioning of Plumbing	1	08/16/24	08/22/24	Specification HACi Approved
22 11 16	Domestic Water Piping	1	08/16/24	08/22/24	Specification HACi Approved
22 11 19	Domestic Water Piping Specialties	1	08/16/24	08/22/24	Specification HACi Approved
22 13 16	Sanitary Waste and Vent Piping	1	08/16/24	08/22/24	Specification HACi Approved
22 13 19	Sanitary Waste Piping Specialties	1	08/16/24	08/22/24	Specification HACi Approved
22 40 00	Plumbing Fixtures	1	08/16/24	08/22/24	Specification HACi Approved
22 63 13	Gas Piping for Laboratory and Healthcare Facilities	1	08/16/24	08/22/24	Specification HACi Approved
22 64 00	MEDICAL GAS ALARMS	0	08/16/24	08/22/24	Specification HACi Approved
23 - Heating, Ventilating, and Air Conditioning (HVAC)					
23	HEATING, VENTILATING, AND AIR CONDITIONING	1	08/16/24	08/22/24	Specification HACi Approved
23 05 00	Common Work Results for HVAC	1	08/16/24	08/22/24	Specification HACi Approved
23 05 10	HVAC DEMOLITION AND ALTERATIONS	0	08/16/24	08/22/24	Specification HACi Approved
23 05 13	Common Motor Requirements for HVAC Equipment	1	08/16/24	08/22/24	Specification HACi Approved
23 05 23	General-Duty Valves for HVAC Piping	1	08/16/24	08/22/24	Specification HACi Approved
23 05 29	Hangers and Supports for HVAC Piping and Equipment	1	08/16/24	08/22/24	Specification HACi Approved
23 05 49	SEISMIC RESTRAINT FOR HVAC	0	08/16/24	08/22/24	Specification HACi Approved

Number	Description	Revision	Issued Date	Received Date	Set
23 05 50	VIBRATION CONTROLS FOR HVAC	0	08/16/24	08/22/24	Specification HACi Approved
23 05 53	Identification for HVAC Piping and Equipment	1	08/16/24	08/22/24	Specification HACi Approved
23 05 93	Testing, Adjusting, and Balancing for HVAC	1	08/16/24	08/22/24	Specification HACi Approved
23 07 00	HVAC Insulation	1	08/16/24	08/22/24	Specification HACi Approved
23 08 00	Commissioning of HVAC	1	08/16/24	08/22/24	Specification HACi Approved
23 09 00	Instrumentation and Control for HVAC	1	08/16/24	08/22/24	Specification HACi Approved
23 09 93	Sequence of Operations for HVAC Controls	1	08/16/24	08/22/24	Specification HACi Approved
23 21 13	Hydronic Piping	1	08/16/24	08/22/24	Specification HACi Approved
23 21 17	HYDRONIC PIPING SPECIALTIES	0	08/16/24	08/22/24	Specification HACi Approved
23 21 24	CONDENSATE PIPING AND PUMPS	0	08/16/24	08/22/24	Specification HACi Approved
23 22 13	Steam and Condensate Heating Piping	1	08/16/24	08/22/24	Specification HACi Approved
23 23 00	Refrigerant Piping	1	08/16/24	08/22/24	Specification HACi Approved
23 29 23	VARIABLE FREQUENCE DRIVES	0	08/16/24	08/22/24	Specification HACi Approved
23 31 13	Metal Ducts	1	08/16/24	08/22/24	Specification HACi Approved
23 33 00	Air Duct Accessories	1	08/16/24	08/22/24	Specification HACi Approved
23 34 00	HVAC Fans	1	08/16/24	08/22/24	Specification HACi Approved
23 36 16	Variable-Air-Volume Units	1	08/16/24	08/22/24	Specification HACi Approved
23 37 13	Diffusers, Registers, and Grilles	1	08/16/24	08/22/24	Specification HACi Approved
23 41 00	Particulate Air Filtration	1	08/16/24	08/22/24	Specification HACi Approved
23 73 14	MODULAR OUTDOOR AIR HANDLING UNITS	0	08/16/24	08/22/24	Specification HACi Approved
23 81 29	Variable Refrigerant Flow HVAC Systems	1	08/16/24	08/22/24	Specification HACi Approved
23 84 13	Humidifiers	1	08/16/24	08/22/24	Specification HACi Approved
26 - Electrical					
26	Electrical	1	08/16/24	08/22/24	Specification HACi Approved
26 05 00	Common Work Results for Electrical	1	08/16/24	08/22/24	Specification HACi Approved
26 05 10	SELECTIVE ELECTRICAL DEMOLITION	1	08/16/24	08/22/24	Specification HACi Approved
26 05 19	Low-Voltage Electrical Power Conductors and Cables	1	08/16/24	08/22/24	Specification HACi Approved
26 05 26	Grounding and Bonding for Electrical Systems	1	08/16/24	08/22/24	Specification HACi Approved
26 05 29	Hangers and Supports for Electrical Systems	1	08/16/24	08/22/24	Specification HACi Approved
26 05 33	Raceway and Boxes for Electrical Systems	1	08/16/24	08/22/24	Specification HACi Approved
26 05 44	SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING	0	08/16/24	08/22/24	Specification HACi Approved
26 05 49	SEISMIC RESTRAINT FOR ELECTRICAL SYSTEMS	0	08/16/24	08/22/24	Specification HACi Approved
26 05 53	Identification for Electrical Systems	1	08/16/24	08/22/24	Specification HACi Approved
26 05 73	Overcurrent Protective Device Coordination Study	1	08/16/24	08/22/24	Specification HACi Approved
26 09 23	Lighting Control Devices	1	08/16/24	08/22/24	Specification HACi Approved
26 22 00	Low-Voltage Transformers	1	08/16/24	08/22/24	Specification HACi Approved
26 24 16	Panelboards	1	08/16/24	08/22/24	Specification HACi Approved

Number	Description	Revision	Issued Date	Received Date	Set
26 24 17	ISOLATION PANELBOARDS	0	08/16/24	08/22/24	Specification HACi Approved
26 27 26	Wiring Devices	1	08/16/24	08/22/24	Specification HACi Approved
26 28 13	Fuses	1	08/16/24	08/22/24	Specification HACi Approved
26 28 16	Enclosed Switches and Circuit Breakers	1	08/16/24	08/22/24	Specification HACi Approved
26 31 11	DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM	1	08/16/24	08/22/24	Specification HACi Approved
26 43 13	Surge Protective Devices for Low-Voltage Electrical Power Circuits	1	08/16/24	08/22/24	Specification HACi Approved
26 51 00	Interior Lighting	1	08/16/24	08/22/24	Specification HACi Approved
27 - Communications					
27	COMMUNICATIONS	1	08/16/24	08/22/24	Specification HACi Approved
27 05 00	Common Work Results for Communications	1	08/16/24	08/22/24	Specification HACi Approved
27 05 10	SELECTIVE ELECTRICAL DEMOLITION	0	08/16/24	08/22/24	Specification HACi Approved
27 05 26	Grounding and Bonding for Communications Systems	1	08/16/24	08/22/24	Specification HACi Approved
27 05 28	Pathways for Communications Systems	1	08/16/24	08/22/24	Specification HACi Approved
27 11 00	Communications Equipment Room Fittings	1	08/16/24	08/22/24	Specification HACi Approved
27 15 00	Communications Horizontal Cabling	1	08/16/24	08/22/24	Specification HACi Approved
27 52 23	Nurse Call/Code Blue Systems	1	08/16/24	08/22/24	Specification HACi Approved
28 - Electronic Safety and Security					
28	ELECTRONIC SAFETY AND SECURITY	1	08/16/24	08/22/24	Specification HACi Approved
28 05 00	Common Work Results for Electronic Safety and Security	1	08/16/24	08/22/24	Specification HACi Approved
28 05 13	Conductors and Cables for Electronic Safety and Security	1	08/16/24	08/22/24	Specification HACi Approved
28 05 28	Pathways for Electronic Safety and Security	1	08/16/24	08/22/24	Specification HACi Approved
28 13 00	Access Control	1	08/16/24	08/22/24	Specification HACi Approved
TIO_S231455-33-00_BC1 - Testing, Inspection, and Observation Program					
TIO	Testing, Inspection, and Observation Program	0			TIO

RIVERSIDE UNIVERSITY HEALTH SYSTEM

(PROJECT NO. MC08430011869, HCAi NO. S231455-33-00)

MEDICAL CENTER CARDIAC CATHETERIZATION LABORATORY SUITE

COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

APPENDIX "B"
BID PACKAGES

BID PACKAGE 00
GENERAL REQUIREMENTS

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
02 41 20	Selective Building Demolition
03 10 00	Concrete Formwork
03 20 00	Concrete Reinforcing
03 25 00	Concrete Anchors in Cured Concrete
03 30 00	Cast-In-Place Concrete
03 54 16	Hydraulic Cement Underlayment
03 60 00	Grout and Dry Pack
05 12 00	Structural Steel
05 40 00	Cold-Formed Metal Framing
05 50 00	Metal Fabrications
05 50 10	Interior Metal Fabrications
06 10 53	Miscellaneous Rough Carpentry
06 41 19	Plastic Laminate-Clad Wood Casework
07 01 56	Membrane Roofing Modifications
07 41 13	Metal Roof Panels
07 84 00	Firestopping
07 92 10	Interior Joint Sealants
08 12 13	Standard Hollow Metal Frames
08 13 13	Standard Hollow Metal Doors
08 14 24	Plastic Laminate-Faced Wood Doors
08 17 13	Integrated Door Assemblies
08 31 16	Access Panels

08 42 43	ICU-CCU Entrances
08 71 00	Door Hardware
08 71 13	Automatic Door Operators
08 81 10	Interior Glass Glazing
08 83 13	Mirrored Glass
09 05 16	Preparation Of Concrete Substrates for Finish Flooring
09 22 16	Light Gage Metal Framing
09 22 26	Metal Suspension Systems
09 28 15	GMF Gypsum Tile Backing Board
09 29 00	Gypsum Board
09 51 13	Acoustical Panel Ceilings
09 65 13	Resilient Base and Accessories
09 65 16	Resilient Sheet Flooring
09 65 23	Resilient Plank Flooring
09 91 00	Painting
09 96 13	Abrasion-Resistant Coatings
09 97 23	Concrete And Masonry Coatings
10 11 16	Markerboards
10 26 00	Wall And Door Protection
10 28 13	Toilet Accessories
10 44 00	Fire Protection Specialties
10 51 13	Metal Lockers
12 24 13	Roller Window Shades
13 49 13	Integrated X-Ray Shielding Assemblies
22 05 00	Common Work Results for Plumbing
22 05 19	Meters And Gages for Plumbing Piping
22 05 23	General-Duty Valves for Plumbing Piping
22 05 29	Hangers And Supports for Plumbing Piping and Equipment
22 05 53	Identification For Plumbing Piping and Equipment
22 07 00	Plumbing Insulation
22 08 00	Commissioning Of Plumbing
22 11 16	Domestic Water Piping
22 11 19	Domestic Water Piping Specialties
22 13 16	Sanitary Waste and Vent Piping
22 13 19	Sanitary Waste Piping Specialties
22 40 00	Plumbing Fixtures
22 63 13	Gas Piping for Laboratory and Healthcare Facilities
23 05 00	Common Work Results For HVAC
23 05 13	Common Motor Requirements for HVAC Equipment
23 05 23	General-Duty Valves for HVAC Piping
23 05 29	Hangers and Supports for HVAC Piping And Equipment
23 05 53	Identification For HVAC Piping and Equipment
23 05 93	Testing, Adjusting, And Balancing For HVAC
23 07 00	HVAC Insulation
23 08 00	Commissioning Of HVAC
23 09 00	Instrumentation And Control For HVAC
23 09 93	Sequence Of Operations for HVAC Controls

23 21 13	Hydronic Piping
23 22 13	Steam And Condensate Heating Piping
23 23 00	Refrigerant Piping
23 31 13	Metal Ducts
23 33 00	Air Duct Accessories
23 34 00	HVAC Fans
23 36 16	Variable-Air-Volume Units
23 37 13	Diffusers, Registers, And Grilles
23 41 00	Particulate Air Filtration
23 81 29	Variable Refrigerant Flow HVAC Systems
23 84 13	Humidifiers
26 05 00	Common Work Results for Electrical
26 05 10	Selective Electrical Demolition
26 05 19	Low-Voltage Electrical Power Conductors and Cables
26 05 26	Grounding And Bonding for Electrical Systems
26 05 29	Hangers And Supports for Electrical Systems
26 05 33	Raceway And Boxes for Electrical Systems
26 05 53	Identification For Electrical Systems
26 05 73	Overcurrent Protective Device Coordination Study
26 09 23	Lighting Control Devices
26 22 00	Low-Voltage Transformers
26 24 16	Panelboards
26 27 26	Wiring Devices
26 28 13	Fuses
26 28 16	Enclosed Switches and Circuit Breakers
26 43 13	Surge Protective Devices for Low-Voltage Electrical Power Circuits
26 51 00	Interior Lighting
27 05 00	Common Work Results for Communications
27 05 26	Grounding And Bonding for Communications Systems
27 05 28	Pathways For Communications Systems
27 11 00	Communications Equipment Room Fittings
27 15 00	Communications Horizontal Cabling
27 52 23	Nurse Call/Code Blue Systems
28 05 00	Common Work Results for Electronic Safety and Security
28 05 13	Conductors And Cables for Electronic Safety and Security
28 05 28	Pathways For Electronic Safety and Security
28 13 00	Access Control
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. General Requirements

Provide and install work that shall include, but not be limited to, the following:

1. Equipment, trucking, dump fees and recycling as required, for the removal from site of all demolition materials generated by the execution of Contractors work. Contractor shall adhere to all requirements of waste disposal as indicated in specification 01 74 00, Construction Waste Management and Disposal. Bid Package 01 – Misc. Specialties will provide dumpsters for misc. demolition materials.
2. Bid Package 01 – Misc. Specialties will provide portable restrooms and wash stations for the workers.
3. Bid Package 01 – Misc. Specialties will provide temporary construction fencing with windscreen. Contractor shall be responsible for securing and protecting their material and equipment to prevent against theft.
4. Necessary railings, barricades and safety devices related to work, in compliance with all local, state and federal inspection agencies, including temporary shoring and structural bracing. Contractor shall remove all temporary items when no longer required.
5. Necessary patching and temporary weather protection, as required to protect work to remain, even if it is temporary.
6. Protect-in-place, as needed, including but not limited to; all benchmarks, walks, streets, driveways, adjacent buildings/structures, furnishings, conduits, drains, sewers, pipes, to remain, and equipment within and/or surrounding the new construction.
7. Take all necessary precautions to prevent disturbing any existing underground utilities and/or structures not to be removed in this scope of work.
8. Excess dirt generated by the work of Contractor shall be stockpiled, clean, debris removed, and ready for use, at an onsite location designated by Construction Manager, as part of this scope of work.
9. Contractor's trucks leaving the site shall take every reasonable precaution so as to not track or drop construction debris or miscellaneous trash onto offsite roads, haul routes, and contractor parking areas. Any dirt, rocks or construction materials, and miscellaneous debris that may be tracked or dropped shall be cleaned up immediately at the Contractor's expense.
10. Daily clean up of all work areas of Contractor is required. Refuse/Debris created by the work of Contractor shall be removed from the site on a daily basis.
11. Traffic control including flag persons, equipment and steel plates as required for Contractor's work. Flag persons shall be trained per Cal OSHA requirements prior to working in that capacity.
12. Obtain and comply with all AQMD permits and OSHA safety requirements for work of Contractor. Contractor shall pay all fines and fees from OSHA or AQMD associated with the work of this contract.
13. Dust control while onsite for work operations shall be performed by Contractor. Site shall be sufficiently wetted by Contractor at the end of each workday.
14. Responsible for providing water as required for their operations. This includes water trucks, adapters, hoses, labor and protection. Include disconnection and removal upon completion of this work.
15. Verify via pot-holing and the exact location of all utilities and structures that may be encountered during construction. Coordinate with Contract Documents and Owner's As-Builds prior to performing pot-holing.
16. Contact "Dig Alert" or similar utility locating service prior to starting any work.
17. Dewatering of trenches, footings, foundations, etc. as required for work of this Bid Package.
18. For duration of the Project, removable bins with lining improvements, per SWPPP requirements, for concrete wash out.
19. Saw cutting and removal as necessary to perform work.
20. Responsible for survey and layout requirements specific to work. Provide all intermediate line and grade control as necessary to properly execute and complete the work. Initial benchmarks are provided by Owner.
21. Comply with Erosion Control Plan requirements by providing Best Management Practices for work related to Contractor, including containment and secondary containment requirements. Provide replacement and re-installation of Erosion Control Plan elements if affected by work

of Contractor. Provide a Responsible Person (RP) for BMP implementation and coordination with onsite Erosion Control Plan. Compliance with all regulations shall be the sole responsibility of this Contractor and its subcontractors. This Contractor and its subcontractors are responsible for making necessary corrections within the time frame indicated on the report produced by Owner SWPPP consultant.

22. Prior to commencing work, Contractor shall walk the site with Construction Manager to establish existing conditions. Contractor shall remedy any damage related to work for any existing conditions required to remain. In reviewing the site, Contractor shall include all items required to perform this scope of work, whether specifically shown in the Contract Documents or not.
23. The Construction Manager has prepared a detailed schedule that will be strictly adhered to. The schedule will be updated monthly and issued for review and comment. The Contractor will have 10 days after issuance of the Notice to Proceed to provide the Construction Manager with any comments and/or revisions that will be considered for incorporation into the schedule. Failure to provide Construction Manager written acknowledgement or comments will deem the Contractor has accepted the Project Schedule as published.
24. Subcategories within scope of work do not limit scope of work to only subcategory heading.
25. Multiple mobilizations as required to meet contract schedule requirements.
26. Project phasing order maybe change before the start of construction.
27. Coordinate with other bid packages as required to perform scope of work.
28. Provide temporary power cords as required to install this scope of work. Provide, install and maintain temporary task lighting as required to provide quality work throughout.
29. Provide all hoisting and scaffolding as required for your work unless otherwise noted.
30. Responsible for scheduling inspections of all governing jurisdictions for the work of this category in a timely manner that does not impact the construction schedule.
31. Responsible for all layout, engineering, elevations, and layout coordination with other bid packages. Layout all work for this category from established control lines. Upon completion of the work, provide as-builts that tie all site improvements to property lines and/or building corners and meet the requirements of the Contract Documents. As-built drawings are to be updated weekly. Coordinate with soils report for all underground work that may require shielding in trenches.
32. Provide a minimum of seventy-two (72) hour notice for utility shut-down and include plan for duration of utility shut-down.
33. Re-inspection costs for failed inspections to be the responsibility of the Contractor.
34. Whether or not the technical specifications reference General Contractor, the definition of the General Contractor where General Contractor is used throughout the technical specifications, it is to be defined as the Prime Contractor providing services for their specific Bid Package, as appropriate for the project, and not limited to the use of the General Contractor language contained in Bid Package 01.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.

B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.

C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.

D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.

E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.

F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.

G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.

H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.

I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.

J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.

K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

L. Submit Daily Reports. Reports to include the following:

i. Sign in/out Sheet with columns for Name, Time in and out, Classification, Injuries during the shift. Foreman and or Superintendent on the top of the sheet
ii. Who is on site.
iii. Does everyone have Proper PPE
iv. Copy of Tailboard or Safety notes
v. What Area you are working in
vi. Work installed that day
    1. Base scope or CO, Provide COR #
vii. Any Alarms set off
viii. Pre and Post Work Photos
ix. Issues on site
    1. Safety
    2. Existing Conditions that may need to be remedied.
    3. Access
    4. Weather
    5. Document Conflicts
    6. Coordination issues
x. Any other Trade of Sub working in your area
xi. List any contact with any site/customer personnel

xii. What work permits were required
    1. Hot Work
    2. Access
    3. ICRA
xiii. Written Weekly Schedule updates while onsite, three week look ahead
xiv. Provide notifications of Potential Delays; materials, manpower, production, access etc.

M. Change Order work will require T&M tickets regardless of the terms (T&M, Lump Sum Cost Plus)
N. Scope includes all necessary badging requirements, immunizations and background checks
O. The lead responsible person (Foreman, Super, etc.) will be on site at all times during your construction activities including for your subcontractors. The lead person will provide access to the current project documents (RFIs, Drawings, Spec, Submittals etc..)
P. All critical work activities including crane lifts, electrical hot work will require a competent person and safety professional.
Q. Provide a person onsite for third party inspections.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. N/A.

END OF SECTION

RIVERSIDE UNIVERSITY HEALTH SYSTEM

(PROJECT NO. MC08430011869, HCAi NO. S231455-33-00)

MEDICAL CENTER CARDIAC CATHETERIZATION LABORATORY SUITE

COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

APPENDIX "B"
CONTRACT DOCUMENT LISTING

BID PACKAGE 01
MISCELANEOUS SPECIALTIES

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	**Description**
06 10 53	Miscellaneous Rough Carpentry
10 11 16	Markerboards
10 26 00	Wall And Door Protection
10 28 13	Toilet Accessories
10 44 00	Fire Protection Specialties
10 51 13	Metal Lockers
12 24 13	Roller Window Shades
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. Miscellaneous Specialties

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. **General Requirements**
   a. Provide and maintain all temporary fencing as shown on Appendix F – Logistics Plan. Include necessary moves as required to meet project schedule requirements.
   b. Provide and service two times per week three temporary toilets and two wash stations for project use. Location of temporary toilets as per Appendix F – Logistics Plan.

c. Provide 200 hours for general labor to be used at the Construction Manager's direction.
d. Provide the following signs to be mounted to the construction site fencing at all entrances:
"Danger Construction Site. Authorized Persons Only"
"Caution: Hard Hats, Safety Glasses, Safety Shoes required in this area at all times"
"Construction Personnel Only"
Signs shall be black letters 3" to 4" tall, on a plain white background

2. **Visual Display Surfaces**
a. Contractor shall furnish as noted and install all visual display surfaces, fastening devices, framing and trim finishes, accessories, including all necessary trim sections.
b. Contractor shall unload and distribute all visual display boards and materials to designated location(s).
c. Contractor shall identify and coordinate all required backing and support locations with the Bid Package 09 Framing, Drywall and Plaster.
d. Contractor shall coordinate and align all visual display board joints with other building components.
e. Prior to installation, Contractor shall fully inspect all visual display boards components for any deficiencies in material.
f. Contractor shall clean all visual display boards prior to completion.
g. Contractor shall remove all protective coverings from visual display boards prior to final acceptance by the Owner.

3. **Signage**
a. Contractor shall furnish and/or install all signage assembly per documents.
b. Contractor shall submit color, texture, and sign material indicated samples for each type and variety of signage.
c. Contractor shall furnish and/or install all ADA Signage as shown or called out in Contract Documents, required by the Local Codes and as may be required.
d. Contractor shall provide and install signs and posts for parking lot signage, including post footings and sleeves.
e. In some locations, the required signage may require fastening on non-standard surfaces and/or assemblies. In such cases, Contractor shall identify each such condition and recommend to Construction Manager proposed fastening systems for review and approval by Owner and Project Architect. All costs associated with such approval processes and alternative fastening systems shall be included in this Bid Package.

4. **Toilet Compartments and Building Accessories**
a. Contractor shall furnish and install all toilet partitions and compartments, urinal screens, and all accessories including, grab bars, toilet paper holders, toilet paper/napkin disposal receptacles, waste receptacles, seat cover dispensers, mirrors, hand dryers, soap dispensers, custodial accessories, and all other accessories.
b. Do not start installation until floor protection is in place. Repair or replace floor protection upon completion of work.
c. All toilet partitions shall be from the specified manufacturer and with the specified finish and color. All exposed toilet partition items shall be of the same finish and color, unless otherwise noted. Contractor shall provide doors for handicap partition walls and provide framework assemblies to allow all doors to fit in the drywall partitions. Contractor shall coordinate partition supports and backing with Bid Package for Framing, Drywall and Plaster.
d. All toilet accessories shall be as specified without substitutions. Include all items as shown in all Contract Documents and as required by code. Coordinate all backing requirements with Bid Package for Framing, Drywall and Plaster.

e. Contractor shall furnish and install all anchors, fasteners, trim, hardware, caulking and sealants as required.
f. Contractor shall perform all final adjustments to partition doors and hardware prior to final acceptance as directed by Construction Manager.
g. Installation of toilet compartment and building accessories – toilet compartments shall be ADA and Code compliant as indicated on drawings.
h. Contractor shall perform final cleaning of all toilet compartments and building accessories – toilet, upon completion of installation.

5. **Operable Partitions – Folding Panels**
   a. Contractor shall furnish and install operable acoustical panel partitions. Work shall include all partitions, supports and support hardware, drilling of holes in structural members for support system, and all accessories, trim and specified finishes items.
   b. Contractor shall fully coordinate the partition support system with the Bid Package 04 Structural Steel, Metal Deck and Misc. Metals for a complete installation. Field measure all openings and clear distances prior to fabrication.
   c. Contractor shall fabricate panels, based on the actual on-site dimensions, providing the sound barrier between two rooms.
   d. Contractor shall conceal fasteners.
   e. Contractor shall fully test partitions prior to completion.
   f. Contractor shall fully adjust and final clean all related work prior to final acceptance.

6. **Fire Extinguishers and Cabinets**
   a. Contractor shall furnish, assemble, and install all fire extinguisher cabinets and accessories.
   b. Contractor shall furnish and install all fire extinguishers and accessories.
   c. Contractor shall coordinate fire extinguisher cabinet locations and the necessary rough-in/blocking/trim out requirements for installation with Bid Package 08 Framing, Drywall, Plaster and Ceiling Tile.
   d. Contractor shall protect all work that is part of this scope.
   e. Contractor shall install the final fire extinguishers into/onto the cabinets/brackets at the direction of the Contract and the authority having jurisdiction. Until that time construction fire protection shall be the responsibility of each contractor to comply with the specified fire protection requirements and the authority having jurisdiction.
   f. Contractor shall provide final clean of fire extinguishers and cabinets, upon completion of installation.

7. **Shade Systems / Roller Shades**
   a. Contractor shall furnish and install all recessed windows shade system / roller shades and accessories.
   b. All screws, clips, fasteners, mounting hardware and shims required for a complete and finished installation. Trim pieces to be installed to hide mounting hardware.
   c. Contractor shall adjust the recessed windows shade systems / roller shades to operate smoothly, easily, safely, and free of binding or malfunctioning throughout the entire operational range.
   d. Contractor shall field measure each window opening to ensure a proper fit. Recessed windows shade systems / roller shades conform to the shape of each opening and seal each opening with no more than 1/8" clearance at the sides and ¼ inch at the bottom in fully closed position.
   e. Recessed windows shade system / roller shade operators shall be positioned to ensure accessibility, ease of operation and convenience.

f. Each shade system / roller shade shall be tested by Contractor in full open and closed positions to ensure proper operation and clearance.
g. Contractor shall provide final clean of all shade systems / roller shades, upon completion of installation.

8. **Final Cleaning**
   a. Performing all final cleaning services for all surfaces in the building to the condition expected in a normal commercial building cleaning and maintenance program. All materials used shall be compatible with the finishes. Contractor shall accept all work prior to completion.
   b. Clean all surfaces including the mechanical equipment. All equipment should be free of dust and visible debris at final acceptance.
   c. Power-washing exterior of building. Work shall include all exterior site concrete, stairwells, and walkways.

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. None.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.

G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.

H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.

I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.

J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.

K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. N/A at this time.

END OF SECTION

BID PACKAGE 02
DEMOLITION

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Alternates
1.05 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	**Description**

Increment 2 General Requirements*

Division 01

02 41 20	Selective Demolition
TIO_S231455-33-00	Testing, Inspection, and Observation Program

*

As applicable to work within this Bid Package.

B. Demolition,

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor to provide all haul off and waste material related to this scope of work.
2. Contractor to coordinate with other prime packages for salvage items removal prior to demolition.
3. For all concrete requiring saw cutting contractor to leave a clean, undamaged edge of existing concrete.
4. Contractor to apply and pay for all permits necessary to perform this scope of work.
5. Contractor to provide all necessary protection of adjacent work called to remain.

6. Remove existing finishes, adhesives or other materials that will conflict with new finishes scheduled in existing or newly remodeled spaces. Remove or modify partition, ceiling, bases and flooring finish substrates to accommodate new finishes as schedules
7. Remove existing partitions, doors, frames, soffits, millwork, fixtures, etc. On the demolition plan shown with dashed lines. Turn salvageable items over to owner at a location of the owner's choosing.
8. Remove and salvage existing equipment and wall mounted accessories for relocation by owner.
9. Remove general, mechanical and electrical material not necessarily shown, but required to be removed to complete work.
10. Cutting and patching required for new mechanical and electrical work in existing spaces shall be by respective contractors.
11. Contractor to verify with owner that hazardous material survey has been completed for materials to be removed/disturbed.
12. The contractor shall verify existing finishes and condition before construction begins.
13. Contractor shall coordinate demolition work phasing and Sequencing with owner prior to start of construction.
14. Erect dust-proof partitions as required by owner and Fire Marshall to protect adjacent area during construction.
15. Maintain required exists and means of egress during construction.
16. Protect mechanical and electrical services as required to remain in operation.
17. Remove ceiling systems as required to accommodate mechanical and Electrical work. See mechanical and electrical drawings for Approximate locations. Salvage tiles and grid for reinstallation When compete unless noted otherwise. See mechanical and electrical drawings for scope and extent of mechanical and electrical work.
18. During the demolition process there may be instances where the removal or abandonment of a fixture, duct, conduit or other piece of equipment may leave an opening in a required fire resistive assembly. As part of the demolition and remodeling process a fire-resistive "member" or "through" penetration (and/or open joint) resulting from such demolition work shall be firestopped or sealed in accordance with CBC for the necessary rating protection. Provisions for required firestop conditions shall be included as part of this section.
19. Patch "existing to remain" building components if damaged during demolition. Match adjacent materials and finishes.
20. Coordinate with the owner for the storage and relocation
21. Requirements of existing and salvaged items.
22. Verify existing sprinklers system with sprinkler contractor prior to demolition. Sprinkler contractor to modify and maintain system code requirements throughout the project.
23. Contractor shall remove/modify existing gypsum board and act ceilings as necessary for new ceiling layout and mechanical ductwork. See ceiling plan for new ceiling layout.
24. Contractor shall remove owner's existing wall mounted items and turn over to over's stock in demolition areas.
25. Contractor to evaluate moisture mitigation at slab after flooring demolition. Verify flooring finishes installation and warranty requirements from manufacturer.

26. Use and pathway of temporary construction walls and temp dust barriers shall meet the requirements of the 2022 CFC, Section 3305.9 and comply with the hospital infectious control requirements. "temporary dust barrier" material shall satisfy one of the following: 1. Noncombustible materials. 2. Materials that exhibit a flame spread index not exceeding 25 when tested in accordance with ASTM E84 or UL 723. 3. Materials exhibiting a peak heat release rate not exceeding 300 kw/m2 when tested in accordance with ASTM E1354 at an incident heat flux of 50 kw/m2 in the horizontal orientation on specimens at the thickness intended for use. Please note: if the material is to comply with item #2 identified above, please be sure the material has a Class A flame spread and/or does not exceed a flame spread index of 25

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. Lower Level Plumbing demo to be provided by Plumbing Contractor

1.04 ALTERNATES

A. Furnish and Install Permanent Walls at Great Hallway instead of Temporary Barriers

1.05 ALLOWANCES

A. N/A at this time.

END OF SECTION

BID PACKAGE 03
CONCRETE

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
03 10 00	Concrete Formwork
03 20 00	Concrete Reinforcing
03 25 00	Concrete Anchors in Cured Concrete
03 30 00	Cast-In-Place Concrete
03 54 16	Hydraulic Cement Underlayment
03 60 00	Grout and Dry Pack
07 92 10	Interior Joint Sealants
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. Concrete

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. **Site and Building Concrete**
   a. Contractor shall furnish and install all cast-in-place concrete (interior and exterior areas) including but not limited to structural foundations, footings, stairs, structural concrete filled decks, pads, retaining walls, site walls, planters, light pole bases, curbs, swales, gutters, ramps, detectable warnings/truncated domes, pedestrian concrete pavement, concrete seat

walls and house keeping pads. Contractor to coordinate with M.E.P. trades for pad sizes prior to placement.

b. Contractor shall furnish and install concrete equipment pads, depressions, seat walls and curbing for all electrical, mechanical, and plumbing items. Contractor shall verify the quantity, size, and location with each respective bid package. Provide and install foam infill as required per Contract Documents.

c. Contractor to provide and install all pre-cast concrete.

d. Contractor to provide and install all stair nosings and treads.

e. Contractor shall reference all Contract Documents for locations and requirements. Said work shall include the furnishing, staging, and installation of all associated reinforcing steel. Construction-joint slip dowels and smooth round bar as required. (Contractor shall include greasing and wrapping, if required.). Contractor to provide all vertical dowel rebar into masonry by others. Coordinate with masonry contractor for layout of masonry wall dowels from footing to wall.

f. Contractor shall be responsible for all layout under this Bid Package. Owner will provide a Surveyor who will survey building corners, grid lines and benchmarks (elevations), with agreeable frequency and offsets. Contractor is responsible for protection of provided points and responsible for providing finish elevations.

g. Contractor shall perform final cleaning of areas prior to concrete pours.

h. Contractor shall plug miscellaneous holes in elevated areas to ensure minimal concrete leakage.

i. Contractor shall clean up any concrete leakage through formed surfaces and elevated areas.

j. Contractor shall furnish and install sand, aggregate base course, gravel and/or vapor barriers required beneath Contractor's work as shown.

k. Contractor shall furnish and apply all curing/hardener/sealer compounds. Contractor shall verify and assure that all compounds are fully compatible with future flooring/finish applications. Provide required finish sealer where concrete is on exposed finish floor.

l. Contractor to provide and install finish sealer where concrete is shown as exposed per the Contract Documents.

m. All cold joints, construction joints, expansion joints, saw-cut joints, and pre-formed joint fillers as required by job conditions and as shown. If applicable, include Styrofoam and separation materials at special conditions. Reference typical details throughout the Contract Documents. All saw cut joints shall be square and true, using good equipment with sharp blades to accomplish cuts without spalling, and shall be completed the day immediately following the pour.

n. Contractor shall furnish and install all joint sealants of all concrete paving expansion joints, including caulking to building perimeters, vertical surfaces, warning grooves, truncated domes and new to existing concrete paving. Removal of filler material or "zip strip" to proper depth prior to sealant installation is included. Scope of work includes preparation, backer rod materials, and sealant for joints as shown. Contractor shall anticipate that joints of a specific width and depth may vary due to differing construction tolerances.

o. Install all embeds, inserts, anchor bolts, sleeves, reglets, and handrail/guard rail sleeves that are furnished by others and cast into Contractor's work. Contractor shall provide templates and racks to maintain alignment and plumb, as required to secure items during pouring operations. Contractor's providing embeds will include layout drawings for this contractor's use in placement.

p. Installing all required slab depressions and proper sloping of structural slabs for architectural concrete topping slabs, ceramic/quarry tile, special flooring, cast stone, thresholds, drains and equipment. Contractor shall verify all dimensions and specific requirements with the respective bid packages. If a discrepancy occurs between the Contract Documents and/or finish schedule, Contractor shall immediately notify Construction Manager in writing.

q. All concrete textures and finishing of all concrete work including sub slabs shall be compatible with all other building components and finishes, e.g., waterproofing, tile flooring, flooring, adhesives, and paint.

r. Contractor shall furnish and provide drilling and grouting for rebar dowels, if required

s. Grouting and/or dry packing of all base plates as shown and/or specified. Solid grouting of all hollow metal frames as shown and/or specified. (Install Styrofoam block outs at locations where hardware will be installed, e.g., hinges, strike, closer.)

t. Contractor shall fill/repair Grout/Concrete all areas from Demo and removal of Equipment.

u. Additional saw cutting of control joints, above or on the sides of drain lines placed in concrete slabs. All such saw cutting shall be performed after securing the approval from the Architect and/or Owner.

v. Protection of all in-slab and/or below-slab embeds during and after concrete placement. This specifically includes, but is not limited to, Walker duct, floor boxes, and floor drains

w. Contractor shall ensure concrete fill around sleeves and penetrations below and around foundations, retaining walls, and curb areas, as required.

x. Contractor shall provide block outs for all building materials/components/utilities as required. Include patching/infill of block outs, as required. Coordinate the sizes and locations with respective bid package.

y. Contractor shall provide and maintain rebar fall / impalement protection in accordance with local jurisdictional safety requirements.

z. Contractor shall remove from site all spoils generated by the scope of this Bid Package.

2. **Waterproofing**

a. Contractor shall furnish and install all waterproofing products as specified and in full compliance with the manufacturer's instructions and Contract Documents.

b. Contractor shall furnish and install all waterproofing membrane systems or flashings applied to all surfaces as required by the Contract Documents with the exception of roofing waterproofing. The following is a general description of locations that are included but not necessarily all inclusive: Cold Fluid Applied waterproof membrane system at all structures (walls, floors, and pits) that are in contact with earth as necessary to provide complete waterproofing protection.

c. Contractor shall furnish and install all pedestrian traffic coatings / toppings and any mid-slab waterproofing systems.

d. Contractor shall furnish and install all water repellents (penetrating and anti-graffiti coatings) to all vertical and horizontal surfaces as required by the Contract Documents and as specifically defined in this scope of work.

e. Contractor shall furnish and install all membrane strips, sealants or other manufacturer approved products and methods to fill and "bridge" gaps at separation/cold joints typically located between intersecting walls and where expansion is required. Waterproofing at these areas shall also be applied in a manner that will allow normal movement of these walls without damaging the integrity of the membrane.

f. Contractor shall furnish and install a protection course in the areas as shown. The application of the protection course shall conform to the manufacturer recommendation/requirements.

g. Contractor shall install the protection course system continuously without gaps over the horizontal membrane. This protection course system shall be adhered to the waterproofing as recommended by the manufacturer to allow concrete placement without movement of the board.

h. The below-grade waterproof membrane shall overlap the full width of the horizontal portion of footings at all retaining, planter and site walls.

i. Contractor shall install all waterproofing with neat, clean even lines at grade level and at exposed conditions. The final termination point above grade shall be determined by the Architect prior to start of work. Contractor shall provide proper elevation/termination points at areas of waterproofing as required by Contractor. Contractor shall snap lines between the

termination points of the waterproofing. All layouts shall be reviewed with the Contractor and Concrete Contractor prior to application. Contractor shall remove all excess or incorrectly located waterproofing materials.

j. Contractor shall properly seal and reinforce areas around all penetrations in the waterproofing membrane in accordance with the manufacturer's recommendations and Contract Documents.

k. Contractor shall furnish and install all sealants and caulking as it applies to this Bid Package. Scope of work includes preparation, backer rod materials, and sealant for joints as shown. Contractor shall anticipate that joints of a specific width and depth may vary due to differing construction tolerances.

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. Bid Package 3 Masonry: Contractor to provide all masonry and associated reinforcing steel for masonry. Reinforcing steel dowels from footing into masonry by Bid Package 02.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task

lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.

H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.

I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.

J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.

K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. N/A

END OF SECTION

BID PACKAGE 04
STRUCTURAL, METAL DECK AND MISC. METALS

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
05 12 00	Structural Steel
23 05 29	Hangers and Supports for HVAC Piping And Equipment
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. Structural Steel and Metal Deck

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all embedded anchor bolts, fasteners, inserts, steel templates, embeds for steel columns, structural steel, and miscellaneous steel attaching to concrete and masonry work. A separate template shall be provided for each base plate and configured bolt pattern location, clearly marked and identified for placement by others. Coordinate and layout all embedded items for installation by Bid Package for Concrete.
2. Contractor shall prepare shop drawings for installation locations of embeds installed into masonry. Contractor to deliver embeds to site and unload for installation by others. Contractor to verify installation locations prior to fabrication of steel.

3. Contractor shall furnish and install all bolts, fasteners, nuts, washers, inserts, and other miscellaneous items, as required to attach and install all items included in this contract to steel and all other dissimilar materials.
4. Contractor shall furnish and install all continuous and individual steel plates and angles with welded studs for embedment into concrete. Coordinate lengths with Bid Package 04 Concrete (Site, Offsite and Structural), Masonry and Waterproofing and provide lengths as required.
5. Contractor shall furnish and install all structural and miscellaneous steel items, for the complete installation and erection comprised of wide flange beams, girders and columns, tube steel columns and braces, plates, clips, steel pipe, bent plates, channels, angle iron, steel rods, railings and checker plate. Include all required bolts, fasteners, inserts, and sleeves, for the execution of this work. Coordinate work with other trades requiring steel to be fabricated to receive attachments. (i.e. operable partitions, aluminum window system).
6. Contractor shall furnish and install all steel structural steel members. Contractor shall maximize shop fabrication efforts, in order to reduce the amount of field welding.
7. Contractor to provide shop priming/coatng per Contract Documents for all steel.
8. Contractor shall verify all dimensions of work and fully comply with all applicable codes. Field measurements of all locations shall be performed prior to fabrication. Contractor shall provide all layouts as indicated on the Contract Documents.
9. Contractor shall furnish and install all metal decking as per the Contract Documents.
10. Contractor shall furnish and install all structural steel plates, bent plate, angles, and tube steel at edge condition that support and close metal decking.
11. Contractor shall furnish and install all loose angles as required for deck supports at columns and reinforcing at underside of metal deck openings as shown on the Contract Documents.
12. Contractor shall include offsite storage of materials until required on the jobsite.
13. Contractor shall provide metal deck “cut outs” and support at structural steel moment and braced connection plates that interfere with the elevation of metal deck.
14. Contractor shall deliver all metal decking and accessories to the jobsite as directed and shall be rigged and hoisted into place by the Contractor. Distribution of decking on structure is the responsibility of this Contractor. Contractor shall tack all deck in place immediately after spreading the deck.
15. Contractor shall provide touch-up of prime painting and galvanizing of decking as shown and/or specified in the Construction Documents.
16. Contractor to furnish to jobsite all anchor bolts / embeds embedded in work by others. Include shop drawings detailing location of embeds.
17. Contractor shall clean all welds and removal of ferrule type materials associated with installation.
18. Contractor shall coordinate all shop fabrication/field inspection. Contractor shall become completely familiar with the Owner’s Third Party testing and inspection requirements as well as the material sourcing requirements, which include the coordination of mill certificates, labeling, tagging, and stamping of steel during the fabrication process, shipment to jobsite, and erection. No unidentified steel shall be used by the Contractor. All steel shall have mill certifications and be properly identified (e.g., source, heat or melt number). Contractor shall provide adequate access for Inspectors to all elements of work. Means of all such access include ladders, lifts, and scaffolds. All costs for re-inspection of any work as a result of previous failed inspection shall be the responsibility of this Contractor. All Third Party Testing and inspection shall be by the Owner.
19. Contractor shall verify and accept elevations and placement of anchor bolts and embedded items prior to each erection sequence of work. Contractor shall survey all work and notify Construction Manager immediately of any problems so that such problems can be corrected.
20. Contractor shall furnish and install safety cables (2 strand minimum) and all required miscellaneous steel (e.g., steel plates, angle iron posts) to support cables in all areas. Safety cable and toe board installation shall comply with OSHA and local codes. Cables shall be

installed by the Contractor around the entire perimeter of the building (floors and roof) and at all interior openings, e.g., duct shafts/penetrations, elevator shafts, stairways, and/or areas where metal decking cannot be installed due to erection/sequence. Safety cables shall also be installed on stair flights and landings. Contractor shall coordinate this work with the Owner and other affected trades for layout and method of attachment prior to start of work. Removal of all safety cables, toe boards, and associated materials related to the Project shall be the responsibility of this Contractor. The Contractor shall notify and obtain approval from the Construction Manager prior to removing any materials. Posts to be located in areas where they will not be exposed in finished areas when removed. Provide location submittal for approval prior to installation.

21. Temporary safety cables shall be installed by this Contractor in a manner that allows the cable to be removed in isolated sections so that other trade work may continue, e.g., separate cables for each bay - column to column. If required, modify and re-route cables to allow access and safety for other trades.
22. Contractor shall remove cables and miscellaneous steel in phases as required by construction sequencing and Owner. All miscellaneous iron that penetrates the concrete shall be cut off by the Contractor below the surface of the concrete. All exposed steel (at areas of post removals) shall be ground flush and filled as necessary for appearance by this Contractor.
23. Contractor shall protect all floor and roof openings during erection per OSHA and local requirements. Contractor shall immediately replace all opening protection removed for installation of work.
24. All items furnished only to the jobsite shall be off-loaded and stored by Contractor, at a location designated by the Construction Manager and Owner.
25. Contractor shall provide construction power for welding and task lighting from designated sources as per Owners approval. Contractor shall provide proper ventilation (i.e., fans, etc.) in the areas that work is being performed.
26. Contractor shall field measure all miscellaneous steel items that install into embedded sleeves, inserts, and bolts, before fabrication.
27. Contractor shall shop fabricate any structural steel systems in the largest possible sections for delivery and installation in the field to reduce field fit-up and alignment issues. Contractor shall grind smooth, fill all field connections, and ensure that all rails and supports are free from sharp edges. All welds shall be prepared in accordance with the Contract Document requirements and be visually acceptable.
28. Contractor shall verify that all work, including steel stair framing, shall dimensionally comply with all applicable building codes. Proper vertical and horizontal distance and clearance in stairs shall be coordinated with Bid Package 02 Concrete, Rebar and Grading before fabrication and erection. Contractor shall maintain proper clearances between stair framing and wall construction so that fire ratings can be maintained, e.g., multiple layers of drywall and/or fireproofing material if applicable to this project.
29. Immediately after all steel work is complete, Contractor shall clean all exposed steel to be painted from oils, scale, piece marks, and other elements detrimental to applying finish paint. Contractor shall coordinate with Bid Package 16 Painting and Wall Covering for painting of steel as specified in the Contract Documents. All exposed steel to be painted shall be treated as architecturally exposed structural steel.

<u>Miscellaneous Metals</u>

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish, fabricate and install all railings, guard rails, decorative metal, ornamental gates, fencing, ladders, safety cages, bollards, steel downspouts, steel framing and

supports, counter supports, posts, and fittings and perform all required welding and certifications. All such work shall be cleaned, ground smooth, and touched up with the specified paint/coating for an acceptable appearance.

2. All railings (guard and hand), decorative metal, and fencing shall be true, plumb and aligned with adjacent sections.
3. Contractor shall furnish and install all metal pan stairs.
4. Contractor shall coordinate equipment and material layout with other bid packages. All conflicts shall be brought immediately to the attention of the Construction Manager.
5. Contractor shall furnish and install all fencing, guard railing, and hand railing hardware as noted in the Contract Documents.
6. Contractor shall furnish and install all specified finishes to ladders, safety cages, bollards, downspouts, steel framing and supports, posts, handrails, guardrails, decorative metal panels, and fittings as required in the Contract Documents.
7. Contractor shall verify that all work, including railings and fencing, shall dimensionally comply with all applicable building codes. Proper vertical and horizontal distance and clearance in stairs shall be detailed and verified by Contractor before fabrication and erection. Contractor shall maintain proper clearances between stair framing and wall construction so that fire ratings can be maintained, e.g., multiple layers of drywall and/or fireproofing material if applicable to this project.
8. Any priming and/or painting and/or coating material shall be of color selected and approved by the Architect.
9. Prior to ordering materials, Contractor shall verify dimensions in the field, and ensure that all specified hardware is fully compatible both in function and in physical dimensions and offsets of hardware with the fencing and railing systems being provided.
10. Prior to installation, Contractor shall fully inspect all decorative and non-decorative metals, fencing and railing components for any deficiencies in material.
11. Contractor shall be responsible for all fencing and railing related coring. All coring shall comply with the necessary specification and code requirements. All coring shall be in accordance with the Contract Documents and shall be coordinated with other bid packages.
12. Contractor shall be responsible for all grouting associated with work of this Bid Package.
13. Contractor shall participate in Project Building Information Modeling coordination per the requirements below.

PROJECT BUILDING INFORMATION MODELING (BIM) GUIDELINES

1. INTRODUCTION

1.1 A Building Information Model (BIM) will be developed by the Construction Manager and the Prime Contractors (Structural, Mechanical, Electrical, Plumbing and Fire Protection). The BIM will integrate architectural, structural, mechanical, electrical, plumbing and fire protection systems and components into a virtual model to improve trade coordination, streamline the construction process, and accurately reflect final as-built conditions.

2. MODELING REQUIREMENTS

2.1 Each Prime Contractor shall produce a trade-specific 3-D model which contains solid 3-D geometry (not lines or wire frames) that represents the actual dimensions of the building elements that will be installed on the project.

2.2 The following trades are required to produce a 3-D model:

- Structural Steel
- Plumbing
- Fire Sprinkler

- Electrical
- HVAC

2.3 Roofing and Acoustical Ceiling Tile will have to provide information and coordinate with the trades listed above.

2.4 Building systems will be organized as separate models linked to a common elevation, origin and benchmark for efficient and accurate coordination purposes. Each floor shall be created as a separate level in the authoring software, and all trades shall reference a shared and documented insertion point and methodology for developing these files.

2.5 BIM Level of development (LOD) requirement.

LOD 400 per the AIA BIM Protocol (E202) will be required. Model detail shall include, but not limited to, all system fittings, equipment, valves, flanges, insulation, hangers, braces, maintenance access areas, and code-enforced clearance requirements. Structural elements such as foundations, pits, slabs, decks, beams, columns, connector plates, gusset plates and braces shall be modeled. Prime Contractors are encouraged to also include any and all objects that would facilitate the coordination with other applicable trades. A trade-specific LOD chart will be distributed by the Construction Manager at the beginning of the coordination process.

2.6 Layer names of model objects shall be logical, accurate and consistent throughout the BIM.

2.7 Two-dimensional shop drawings, submittal drawings, and as-built drawings shall be extracted from the Project BIM, formatted and submitted to the Design Team in compliance with the Contract Documents by each respective prime contractor.

3. TECHNOLOGY PLATFORM AND SOFTWARE

3.1 It is the responsibility of the Prime Contractor to have or obtain the proper hardware and software needed to successfully complete the BIM 3-D coordination process.

3.2 The choice of 3-D modeling software is open, but any software utilized must be able to export to a .DWG file format. Parametric modeling programs with direct. NWC/.NWD export options are preferred.

3.3 Prime Contractors are encouraged to have Navisworks Manage to conduct in-house clash detection and coordination prior to coordination meetings.

4. QUALIFICATIONS OF BIM PERSONNEL

4.1 It is the responsibility of the Prime Contractor to have or obtain trained personnel to successfully participate in the BIM 3-D modeling and coordination process. Personnel participating in the modeling and coordination efforts must be proficient in the use of all hardware and software required and must have field application/installation knowledge and experience necessary to make coordination decisions for their scope of work.

4.2 The Prime Contractor assigned personnel will be required to have access to an email account and the internet for file sharing and participation in web-based coordination meetings.

5. PARTICIPATION REQUIREMENTS

5.1 Each Prime Contractor is required to actively participate in on-site and web-based BIM coordination meetings. Coordination meetings must be attended by each Prime Contractor's Qualified BIM Personnel throughout the duration of the project, the majority of which will be web-based. Field personnel are also encouraged to attend these coordination meetings for constructability input.

5.2 The purpose of the BIM coordination meetings will be to identify, track and document interferences and clashes between the trades that require Construction Manager's facilitation and/or changes in contract document design. Prime Contractors shall conduct proactive model

review and clash detection and coordination with other trades between meetings and arrive to meetings prepared with a list of unresolvable items to discuss.

5.3 Coordination software will be utilized to assemble the various models and provide a report of coordination and/or design issues, usually within 24 hours of the meeting. The report will be reviewed by the team members and agreed upon solutions shall be implemented into the 3-D models in a timely fashion by the respective trade. Implementation includes re-modeling, re-analyzing, and re-distributing the updated BIM. This process will be repeated until all coordination issues are resolved.

5.4 A detailed coordination schedule will be developed and distributed by the Construction Manager at the beginning of the BIM coordination process.

6. BIM WORK PLAN

6.1 At the commencement of the BIM coordination process, a BIM Work Plan will be issued by the Construction Manager which will include:

a. Project sequence and schedule for initial delivery of each model

b. Schedule for updating of each model and preservation of versions of each model

c. File formats used for project submittal and file exchange

d. Compliance with Folder Structure, File Naming, Object naming conventions

e. Utilization of Web Site and FTP Sites

f. Trade-specific LOD requirements

g. Model origin (common 0,0,0 location)

h. Coordination report format

i. Model sign-off procedure

j. Field validation

k. As-built model creation

l. Final BIM deliverable

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. None.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.

F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. Not at this time.

END OF SECTION

BID PACKAGE 05
MILLWORK

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
06 10 53	Miscellaneous Rough Carpentry
06 41 19	Plastic Laminate-Clad Wood Casework
07 01 56	Membrane Roofing Modifications
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. Millwork

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor to provide and install all cabinets, casework, shelving, built-in island casework, countertops, metal trim, vents and grommets including anchorage as indicated in the contract documents.
2. Contractor to provide and install all etched signage in the casework.
3. Provide backing location requirements for work within this Bid Package. Information must be submitted in writing no later than the commencement of the framing stage.
4. Provide and install trim, spacers, shims, scribe, bracing, fillers and caulk at all walls for a neat professional installation.

5. Provide and install all bent plate or fire treated lumber for casework anchorage as indicated in the contract documents. Provide and install steel angles as required for countertop support as per contract documents.
6. Contractor to coordinate with other trades that may be running within the casework to accommodate routing of utilities.
7. Hoisting of all materials. Contractor shall deliver and stock materials per sequencing of rooms or areas as directed by Construction Manager. Material shall be fabricated to allow for stocking through doorways and/or opening that will exist at the time of jobsite delivery.
8. Contractor agrees to provide appropriate storage facilities to temporarily house the casework for this project. Upon delivery, contractor shall inventory, offload and store the casework components in the temporary storage facilities. During the time of delivery, contractor shall notify Construction Manager in writing of any shortages in materials furnished, as well as any defects or blemishes contained in the finished products. Contractor agrees to progressively stage and install the stored casework components in a work sequence as requested by Construction Manager.
9. Plumbing and electrical fixtures for casework shall be provided and installed by others. All openings and holes in casework and tops for plumbing fixtures by this contractor. Coordinate requirements with associated trades.
10. Provide and install all required casework hardware as indicated on the contract documents.
11. Provide and install all wood framing for casework as indicated in the contract documents.
12. Provide and install all plywood beneath countertops.
13. Provide and install all laminate, solid surface, applied wood paneling, solid wood panels, and solid polymer caps as indicated in the contract documents.
14. Provide and install accessible counters at sink areas as indicated in the contract documents.
15. Provide and install all wood paneling / architectural woodwork at walls, ceilings, wall caps and soffits as noted on the contract documents. This bid package shall also include the staining / finishing as noted on the contract documents of wood installed by this bid package.
16. Provide protective measures for installed casework upon completion.
17. Provide for keying of all casework as noted on the contract documents.

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. None.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.

B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. N/A

END OF SECTION

BID PACKAGE 06
ROOFING AND SHEET METAL

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
05 50 00	Metal Fabrications
05 50 10	Interior Metal Fabrications
07 01 56	Membrane Roofing Modifications
07 41 13	Metal Roof Panels
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. Roofing

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install roofing system. Install the specified roof system in accordance with both the Contract Documents and the manufacturer's requirements. Where a conflict exists, the more stringent requirement shall apply. Install products as recommended to receive the specified guarantees and warranties (special).
2. Contractor shall furnish and install air/vapor barrier as indicated on the contract documents.
3. Contractor shall furnish and install roof insulation, rigid metal deck insulation, substrate boards, cant boards, crickets, curbs, caulking, adhesives, mechanical anchors, and sealants, wood blocking and nailers as required for a complete roofing system.

4. Contractor shall furnish and install all expansion control as shown in the contract documents.
5. Inspecting and accepting all substrate surfaces and building components prior to application of roof systems. Contractor shall timely notify Contractor in writing of all problems requiring corrective action. Upon Contractor acceptance of substrate surfaces and building components, Contractor shall install roofing system. If ponding or other unacceptable conditions are discovered after the application is complete, Contractor shall correct the problem at no additional cost.
6. Contractor shall provide all seal and flashing of all roof penetrations as approved by roof system manufacturer to seal and flash all penetrations as required. Penetrations may include electrical conduits, plumbing/mechanical pipes and/or structural supports. Install pitch pans and roof jacks (furnished by others) as required. Contractor shall include filling and sealing of all pitch pans and roof jacks as required by the manufacturer. (Reference the architectural, structural, mechanical, plumbing, and electrical plans for general locations of roof penetrations.)
7. Contractor shall clean off the roof deck of loose dirt/dust prior to start of work. Contractor shall clean all roof/overflow drain assemblies after work is complete.
8. Contractor shall furnish and install the number of plies of roof membrane as required by the Contract Documents and properly sealed over the top of each roof equipment pad or platform as required to make each location watertight.
9. Contractor shall perform specified tests on roof areas at the completion of work. Contractor shall correct any "ponding" or leaks prior to acceptance.
10. Contractor shall furnish and install flashing, including flexible lead flashing, at all roof and overflow drains, as shown and/or specified and as required by the roofing manufacturer.
11. Contractor shall furnish and install roof walk pads, as shown and/or specified and as required by the roofing manufacturer.
12. Providing adequate protection to all areas of work prior to and during construction to ensure proper installation.
13. Contractor shall include all fees as applicable to apply for and provide complete roofing warranties per the Contract Document requirements.

C. Sheet Metal

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all sheet metal (galvanized, stainless steel and aluminum-zinc alloy-coated steel) items including all but not limited to formed metal wall panels, column covers, sheet metal at exterior wall base continuous flashing, roof flashing, counter flashings, saddle flashings, door drip flashing, sill pans at door headers and windows, counter and flexible flashings, self adhered flexible flashing, cap flashings for all mechanical equipment at roof, duct penetration flashings, coping caps, break metal and aluminum support brackets at hollow metal frames, roof screens, backer rods, expansion/seismic joint assemblies, composite wall panels, hanging gutters, downspouts, break metal, and parapet caps as required in the Contract Documents.
2. Contractor shall furnish and install all through-wall overflow scuppers.
3. Contractor shall furnish and install all clips, cleats, fasteners, adhesives, mastic, solder, caulking, and sealants for this scope of work, as required for weatherproofing and appearance. Include caulking between all work and adjacent, dissimilar materials for both interior and exterior items. Caulking materials shall be compatible with all building materials as noted in the Contract Documents.
4. Contractor shall furnish and install all sheet metal covers, edge metal/gravel stop for rooftop mechanical equipment pads.
5. Contractor shall furnish and install all formed metal wall panels at the mechanical screen.
6. Contractor shall furnish and install all 2x wood nailers at roof for contractor's work and equipment supports receiving roofing and/or sheet metal.

7. Contractor shall furnish and install all expansion/seismic joint cover assemblies.
8. Contractor shall furnish and install flashing at thresholds sill pans.
9. Contractor to furnish and install all sealant work related to metal flashings.
10. Contractor shall furnish and install all sealant, shims, furring, cant strips, stiffeners, and clips as required properly supporting, sloping, and attaching flashing assemblies to parapet framing. Properly flash and seal around cap flashing penetrations. Provide factory finished materials as required.
11. Contractor shall perform specified tests on roof areas at the completion of work. Contractor shall correct any "ponding" or leaks prior to acceptance.
12. Contractor shall furnish and install all drips above doors, window openings including associated sealant and backer rod.
13. Contractor shall furnish and install all flashings within the enclosure system.
14. Contractor shall furnish and install all sheet metal caps at columns.
15. Contractor shall furnish and install all sill pan and flexible flashing at floor and deck areas as specified in the Contract Documents.
16. Contractor shall furnish and install all fixed-formed metal louvers, screens, and accessories for a complete installation per the Contract Documents.
17. Provide adequate protection to all areas of work prior to and during construction to ensure proper installation.

D. Other Items

1. Contractor to provide and install all roof specialties and accessories.

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. None.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.

D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. N/A

END OF SECTION

BID PACKAGE 07
DOORS AND HARDWARE

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
07 92 10	Interior Joint Sealants
08 12 13	Standard Hollow Metal Frames
08 13 13	Standard Hollow Metal Doors
08 14 24	Plastic Laminate-Faced Wood Doors
08 17 13	Integrated Door Assemblies
08 31 16	Access Panels
08 42 43	ICU-CCU Entrances
08 71 00	Door Hardware
08 71 13	Automatic Door Operators
08 81 10	Interior Glass Glazing
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. Doors and Hardware

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish hollow metal door and window frames.
2. Contractor to furnish and install wood and hollow metal doors, and door hardware.

3. Contractor shall furnish and install all louvers specified in wood or hollow metal doors.
4. Contractor shall provide and perform field welding/assembly of oversized hollow metal frames. Contractor shall provide and perform all preparation and spot framing of field welded joints.
5. Contractor shall furnish and install all door hardware, including but not limited to panic, exit devices, mortise and cylinder locksets, key cabinet, hinges, closers, kick plates, door stops, weather stripping, thresholds, stainless steel tread plates, and pulls. Coordinate access control installation with BP-06 Electrical.
6. Contractor shall undercut doors to accommodate the various types of floor finishes and HVAC requirements.
7. Contractor shall prepare hollow metal doors and frames for the security sensors, including predrilling the wire and screw holes.
8. All finish hardware (including door seals, door mutes and silencers) shall not be installed until doors and frames are completely finished/painted (except as directed in writing by Construction Manager). Contractor shall remove and reinstall hardware if installed before finishing/painting.
9. Contractor shall furnish and install the temporary locksets to be utilized during the construction phase.
10. Contractor shall furnish permanent lock cylinders and keys as specified.
11. Contractor shall be responsible for receiving, offloading, storage, and coordinating with installing contractor for door and window frames, distribution of doors, and hardware from storage area to door openings.
12. Contractor shall include all minor fittings, adjusting and/or shimming of hollow metal doors to openings if required by field conditions.
13. Contractor shall adjust and lubricate finish hardware to ensure proper operation.
14. Contractor shall adjust seals, finish hardware, and doors after HVAC systems are balanced. Provide a written report to Construction Manager noting any deficiencies with door and hardware operation. Maintain proper adjustment throughout warranty period.
15. Contractor includes finish touch-up of minor nicks and scratches that may occur after installation.
16. Contractor shall provide operation and maintenance instructions for all doors and finish hardware.
17. Contractor shall furnish and install door-mounted louvers, and door mounted devices.
18. Contractor shall coordinate all glass and glazing requirements that are not included as part of the hollow metal door with Bid Package for Glazing.
19. Contractor to provide and install all door thresholds shown on door schedule and door hardware specification.
20. Provide door/frame prep and hardware interface electrified door hardware to be coordinated with Bid Package for Electrical.
21. Contractor shall coordinate with Contract Documents regarding wall thickness.
22. Contractor shall provide temporary infill of openings, if doors not installed prior to inclement weather.
23. Contractor shall provide all mineral wool required around the door frames.

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. Bid Package 11 Glazing: Contractor to provide glass for hollow metal doors and frames.
2. Bid Package 11 Glazing: Contractor to provide and install all aluminum doors frames and associated door hardware.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

N/A

END OF SECTION

BID PACKAGE 08
GLASS AND GLAZING

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
07 92 00	Joint Sealants
08 71 13	Automatic Door Operators
08 81 10	Interior Glass Glazing
08 83 13	Mirrored Glass
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. Glass and Glazing

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all aluminum window and door assemblies including but not limited to frames, aluminum framed entrances and storefronts, aluminum windows, flat glass, spandrel glass, metal panels integral to system, tempered and laminated glass, fire-protection-rated glazing, insulation integral to system, gasketing systems and accessories as depicted in the Contract Documents.
2. Contractor shall furnish and install all glass and glazing for hollow metal and wood doors and hollow metal window frames.

3. Contractor shall provide all aluminum materials in finishes approved by the Architect and/or in accordance with the Contract Documents. Contractor shall coordinate finishes with adjacent, similarly finished materials.
4. Provide and install aluminum sun shades as shown on Contract Documents. This includes all drilling of steel for attachment.
5. Contractor shall furnish and install all required inserts, anchors, shims and blocking as required to properly install and/or attach Contractor's work to all other building components. Contractor includes all drilling, tapping, welding, fasteners, and other items as required for a complete and operable system.
6. Contractor shall furnish and install all caulking and joint sealants at all windows and Aluminum Doors as required for a watertight system and appearance. Include caulking between all contract work and adjacent dissimilar materials on both interior and exterior side of systems. Caulking materials shall be compatible with all building materials and per approved contractual specifications.
7. Contractor to provide and install all isolation strips as shown on the Contract Documents.
8. Contractor shall furnish and install all finish hardware, include thresholds, for aluminum door and window assemblies as specified in the Contract Documents. Contractor is responsible for keying per Owner keying schedule.
9. Contractor shall provide and install handicap door operators at storefront doors complete. This includes provision of the power booster, controls circuits and all work beyond power booster.
10. Contractor shall furnish and install all factory-finished aluminum break metal, miscellaneous trims, drywall receivers, sill flashings, bent flashings, and reveal flashings at aluminum door and window assemblies, as required for a complete and finished system installation.
11. Contractor shall furnish and install glazing with Solar Control Low E Coatings as specified in the Contract Documents.
12. Unless steel supports for the storefronts and curtain walls are specifically shown on the drawings, this contractor has full responsibility for the structural support of their own systems. Provide steel in metal panel sections, mullions or elsewhere as needed.
13. Contractor shall coordinate frame throats with Contract Documents for wall thickness.
14. Contractor shall provide temporary infill (plywood, minimum) for long lead items (glass or frames)
15. Contractor shall clean all glazing at the completion of work, including removal of all labels, stickers and packing materials. (All installation-related debris and material shall be removed daily.)
16. Prior to ordering materials, Contractor shall verify dimensions in the field, and ensure that all specified finish hardware is fully compatible both in function and in physical dimensions and offsets of hardware with the aluminum door and frame systems being provided.
17. Prior to installation, Contractor and Construction Manager shall fully inspect all glazing for any deficiencies in material.
18. Contractor shall clearly identify with labels each type of glass. Labels shall remain in place until glass is installed, one exception, labels shall be removed immediately from sealed insulating glass units.
19. Contractor shall provide full coordination of all work to be installed per the Contract Documents. Coordinate dimensions, layout, sub framing, and work by other trades to ensure proper fit and finish.
20. Contractor shall provide details and engineered calculations for various components as required by Contract Documents.
21. Contractor shall field verify all openings prior to fabrication.
22. Contractor shall isolate all aluminum materials properly from all other building components.
23. Contractor's shop drawings shall provide sufficient detailed information to locate and install all backing and support members that are provided by other trades for use by this Contractor. Failure of Contractor to indicate all backing requirements on Contractor's shop drawings will result in this Contractor being fully responsible to provide the omitted backing.

24. Contractor shall fully coordinate support systems of Contractor's work with Architect and Structural Engineer. Additionally, Contractor shall coordinate structural details with installing trades as necessary.
25. Contractor shall provide all delivery, storage and handling of the glass and glazing in accordance with manufacturer's recommendations. All glass and glazing shall be stored to avoid water and direct sunlight.

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. Bid Package 10 Doors and Hardware: Contractor to provide all hollow metal doors and frames and hardware associated with hollow metal doors and frames.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.

I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.

J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.

K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. Not at this time

END OF SECTION

BID PACKAGE 09
FRAMING, DRYWALL, PLASTER AND SHIELDING

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
07 21 00	Thermal Insulation

* As applicable to work within this Bid Package.

B. Scope

1. Repair existing fire rated walls within scope as required to maintain rating, typ.
2. Provide sister studs where new backing plates are required at existing walls which are not 16ga studs, typ.
3. Where fire rated walls need to be repaired, upgrade head of wall and fire penetrations to meet detail ULl design no. U419
4. Scope of work consists of the project area and adjacent areas within the 1st level, 2nd level and lower level. Include in bid all work necessary to address new scope including work on nights and weekends. Scope of work shall be coordinated within all disciplines including structural, mechanical, electrical, plumbing, low voltage, medical gas, fire alarm, fire sprinkler and equipment vendor requirements. Review all drawings to obtain complete scope of work. General contractor to coordinate work among multiple disciplines.
5. See sheet ae151 for phasing plans and sheet ae152 for phasing ceiling plans. Coordinate all work within all disciplines.
6. All walls requiring shielding shall have lead shielding extend to a height of 7' - 0" above floor. Lead batten strips, disks and patches shall cover all joints and intrusions into walls, ceiling or floors including j-boxes or other reasons.

7. All doors and windows contained in a wall shall have a lead equivalent shielding thickness equal to or greater than prescribed for that wall.
8. For all boxes to be installed along rated walls, provide 5-sided box detail per Detail
9. All interior partition not tagged shall be 4" metal stud.
10. Install Access Panels as required.

Metal Stud Framing

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all cold formed metal framing and light gauge metal framing systems in strict conformance to the Contract Documents.
2. Contractor shall receive, distribute and install hollow metal door frames.
3. Contractor shall furnish and install all expansion bolts and epoxy bolts for framing systems anchoring into existing concrete/masonry.
4. Contractor shall furnish and install all anchor bolts for light gauge metal framing embedded in new concrete or masonry work. Provide quantity survey and layout as required. Contractor will verify layout prior to material installation.
5. Contractor shall furnish and install all framing accessories as applicable to this Contract's scope of work, e.g., straps, bent plates, clips, "stickers", shims, angle fasteners, hold downs, as shown on plans and required to attach/support light-gauge framing to building structure. Framing accessories shall be installed as required to provide "true and straight" work especially where this contract work is attached to other building components, e.g., structural steel, metal deck edge form, concrete, masonry, and pre-cast. Particular attention shall be paid to openings for windows, doors, and close tolerance conditions.
6. Contractor shall furnish and install all wires, hangers, and straps to support work included in this contract. All work and suspension systems to comply with code requirements.
7. Contractor shall furnish and install all framing and suspending structural systems in order to install work under obstruction, e.g. under plenum mounted equipment, and ductwork.
8. Contractor shall furnish and install all seismic bracing and supports as required at all walls and suspended drywall ceilings.
9. Contractor shall furnish and install blocking/backing as shown on Contract Documents. Contractor shall also include backing for toilet partitions.
10. Contractor shall furnish and install slip track at all areas.
11. Contractor shall furnish and install all wall end caps.
12. Contractor shall install steel counter supports provided by others.
13. Contractor shall furnish and install all light-gauge structural parapet roof, soffit ceilings and floor joist systems as noted on the structural drawings. Provide and install all attachment hardware, bolts, nuts, and washers as required to install same to the building structure. Custom size, drill and cope components as required to fit structural steel and ensure a level floor surface and properly pitched roof surface. Provide flat plate on top of joists at all areas where metal deck does not land squarely on joists. Frame out and support all penetrations.
14. Contractor shall furnish and install all hat channels, furring, backing behind expansion joints, sheet metal items and other items requiring same.
15. Contractor shall furnish and install all draft stops per the Contract Documents.
16. Contractor shall furnish and install all framing /drywall work at opening penetrations required for other trades and equipment, e.g., ducts, fire dampers, pipes, conduits, lights, elevator rail brackets, doors, frames, and J-boxes.
17. Contractor shall furnish and install light-gauge framing and drywall soffits under stair assemblies as required by the Contract Documents. Include all necessary attachment angles to the structural steel stair framing.

18. Contractor shall furnish and install light-gauge framing and drywall under elevator trusses and shaft walls. Provide all necessary components to attach work to elevator trusses, walls and ceilings.
19. Contractor shall furnish and install all light-gauge framing supports/backing for attachment of aluminum soffit/fascia/storefront systems (by others) to the structure per contract documents.
20. Contractor shall furnish and install all rated enclosures, soffits, shafts, and penetrations for plumbing, electrical, HVAC ducting/piping, elevator and other items as required by the Contract Documents.
21. Contractor shall furnish and install all fire/smoke-rated construction and shall maintain continuous required ratings at all areas including, intersections of dissimilar construction, e.g., metal decking and concrete, steel. Include fire-safing, fire barrier sealants, and drywall/taping compound as required by the Contract Documents and by code requirements.
22. Contractor shall furnish and install all steel plates located at the underside of metal decking for top track anchorage. Include any/all compression seals and fire-safing at these areas.
23. Contractor shall furnish and install all new walls, and ceilings areas to be constructed from metal studs. All notes referring to nailer sills, headers, backing are to be installed using metal studs and/or accessories.
24. Contractor shall furnish and install all metal studs and final drywall configurations will match adjacent surfaces and be true and flush with adjacent new construction. This may require custom stud sizes and/or shimming/furring as required.
25. Constructing the elevator shaft in a code approved manner. This includes extending drywall and furring over exposed steel beams (if applicable). All surfaces shall be flush and/or sloped as required. Furr out at sill angles and door operators. Include all patching as required around penetrations in shaft, e.g., elevator guide rails, J-boxes, conduit, and pipe. Fully coordinating the framing requirements in the shaft and at the hall entrances with the Elevator Contractor.
26. Installing, maintaining and removal of temporary handrails in the interior stair shafts. Temporary handrails shall be installed immediately after wall framing in each stairwell is complete. Temporary rails must meet OSHA requirements and may be constructed out of light-gauge framing materials. Rails shall be removed prior to installation of drywall.
27. Contractor shall furnish and install all miscellaneous steel gussets, anchors, and supports for framing systems.
28. Contractor shall furnish and install all welding as applicable to this scope of work. Welders shall be certified as required by all governing authorities having jurisdictions.
29. Contractor shall furnish all power for welding equipment.
30. All fire watch for contractor's work. A properly trained and equipped tradesman will perform the fire watch. When welding, provide all fire control measures, e.g., fire blankets and ventilation as required.
31. Contractor shall furnish and install all backing plates and support members for all handrails, stair rails, equipment, toilet partitions/accessories, fixtures, cabinets, shelving, white boards, TV brackets (including welded studs), casework, and tack boards as shown on the drawings, details, and as required by the Contract Documents.

<u>Insulation, Drywall, Interior Caulking, FRP</u>

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all thermal and acoustical insulation as generally shown and/or specified to satisfy the project requirements and to meet the requirements of the building code.
2. Contractor shall furnish and install all sound insulation at all penetrations and utility boxes as required to maintain sound-rated assemblies.

3. Contractor shall furnish and install all foil-faced insulation as shown and or specified in the Contract Documents.
4. Contractor shall provide fireproofing as required including, caulking and firestopping, per the Contract Documents and project requirements.
5. Contractor shall furnish and install all acoustical treatments at mechanical and generator rooms.
6. Contractor shall furnish and install all fasteners including but not limited to, self-tapping screws, bolts, nuts, and washers for work of this Bid Package.
7. Contractor shall provide all patching/drywall work at opening penetrations required for other bid packages and equipment, e.g., ducts, fire dampers, pipes, conduits, lights, window shades, j-boxes, access doors and panels.
8. Contractor shall patch, if necessary, all fire rated enclosures, soffits and shafts for plumbing, electrical, HVAC ducting/piping and other items as required.
9. All fire/smoke-rated construction shall maintain continuous required ratings at all areas including penetrations, intersections of dissimilar construction, e.g., drywall and wood framing, concrete, steel. Include fire safing, fire barrier sealants, and drywall/taping compound as required and by code requirements.
10. Contractor to apply all identification for rated wall assemblies as required by Contract Documents.
11. All final drywall configurations will match adjacent surfaces and be true and flush with adjacent construction. This may require shimming/furring as required.
12. Contractor shall provide construction power for tools and task lighting from designated sources as per Owner's approval or via self-supplied generator.
13. Contractor shall furnish and install all interior gypsum board and finishing as required by the Contract Documents. Provide fire-rated, moisture resistant, and abuse resistant board/compounds where required by code and the Contract Documents. Include all trims, accessories, casings, corner/edge trims, reveals, and moldings. Provide moisture resistant gypsum board at all early drywall areas.
14. Contractor shall furnish and install all exterior-rated gypsum sheathing board under exterior surfaces and plaster surfaces.
15. Contractor shall verify and coordinate dimensions for alcoves, walls and opening dimensions for equipment furnished by others, e.g., toilet accessories, fire extinguisher cabinets, and Owner/Contractor equipment. Particular attention to code-mandated exiting clearance and handicap clearance dimensions is required, e.g., restrooms, drinking fountain alcoves, hallways, and stairways. All work shall fully comply with current handicap codes (even if contrary to the Contract Documents and submittal approvals). Contractor shall request specific written direction from the Construction Manager before proceeding with any work that is non-compliant.
16. Contractor shall furnish and install all cementitious backer board.
17. Where furring or framing systems are scheduled to be attached to the surface that is rough, uneven, and not true or level, Contractor shall provide shimming, building out and adjustments to the framing system as required to compensate for the uneven substrate.
18. Contractor shall furnish and install all aluminum trims/reveals/moldings.
19. Contractor shall furnish and install necessary trim, molds, reveals, shadow molds, and f-stops.
20. Finish taping behind all equipment/fixtures as is consistent with the taping requirements of the area in question, i.e., do not merely fire tape behind these areas.
21. Contractor shall provide early drywall at all framing when directed by Construction Manager as required to commence acoustical ceiling grid installation or metal duct installation. This may or may not be in sequence with drywall production work but will be performed as necessary for other adjacent installations. Taping may not be in place prior to the start of acoustical grid installation due to schedule requirements. If this is the case, provide all protection of acoustical ceiling as necessary.
22. Contractor shall furnish and install acoustical sealants as required by the Contract Documents at sound and/or rated construction.

23. Contractor shall furnish and install all sealants (elastomeric, solvent-released, and acoustical) and caulking as required, except at casework, countertops, wood base, hollow metal door frames and ceramic tile. Scope of work includes preparation, backer rod materials, and sealant for joints as shown. Contractor shall anticipate that joints of a specific width and depth may vary due to differing construction tolerances.
24. Caulking and sealants of all gypsum board to dissimilar materials, break metal attachments, hollow metal door and window frames per the Contract Documents.
25. Contractor shall furnish and install all FRP.
26. Provide 40 hours of labor to use at the Construction Manager's direction for patching damaged drywall damaged by unknown others.
27. Contractor to caulk around all boxes for sound and vapor
28. Furnish and install mineral wool at top of walls

Lath, Plaster, Sheathing, Siding and Exterior Caulking and Sealing

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all site, exterior and interior plaster systems as required by the Contract Documents. Include all lathing, flashing paper, flexible flashing, lathing accessories, e.g., weep screeds, weep holes, plaster grounds, corner/edge trims, casings, control joints, reveal moldings, and venting at soffits, as required by the Contract Documents and for a complete job.
2. Contractor shall furnish and install all vertical stress relief for lathing systems as required by the Contract Documents.
3. Contractor shall furnish and install all building sheathing and rigid insulation.
4. Contractor shall furnish and install all flexible exterior weatherproofing, weather resistive barriers, vapor retarders, self-adhered sheet waterproofing, ice and water shield, flexible flashings, and air barriers as per Contract Documents and where work required of this Bid Package is installed. Contractor shall be responsible for a complete weather tight exterior for systems provided within this scope of work.
5. Contractor shall furnish and install all plaster and lath accessories as applicable to this scope of work, as shown in the Contract Documents and required to attach to the building structure. Plaster and Lath accessories shall be installed as required to provide "true and straight" work especially where this contract work is attached to other building components, e.g., structural steel, wood structure, metal deck edge form, concrete, masonry, and pre-cast. Particular attention shall be paid to openings for windows, doors, and close tolerance conditions.
6. Contractor shall provide and install all access panels and access doors indicated on the Contract Documents to be located in plaster ceilings or walls. Access panels not shown but required to access the work of other trades shall be provided and installed by those trades. Contractor shall coordinate plaster and drywall openings for these required access doors and panels with each trade.
7. All moisture control shall be maintained at all areas including penetrations, intersections of dissimilar construction, as required by the Contract Documents.
8. Contractor shall provide and install all caulking and sealants of all plaster to dissimilar materials, break metal attachments, hollow metal door and window frames per the Contract Documents.
9. Contractor shall coordinate caulking and sealants with other bid packages. Contractor shall provide all caulking within components provided within this bid package.
10. Contractor shall protect the roofing membrane and/or waterproof deck coating systems with temporary plywood protection during the installation of the work installed under this scope of work.
11. Contractor shall provide all wash out and dumpsters required for plaster related work.

Radiation Protection

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. All walls requiring shielding shall have lead shielding extend to a height of 7' - 0" above floor. Lead batten strips, disks and patches shall cover all joints and intrusions into walls, ceiling or floors including j-boxes or other reasons.
2. All doors and windows contained in a wall shall have a lead equivalent shielding thickness equal to or greater than prescribed for that wall.
3. For all boxes to be installed along rated walls, provide 5-sided box per detail.

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. None.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task

lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.

H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.

I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.

J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.

K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Provide Pricing for the installation of Miscellaneous Accessories.
B. Provide Pricing for the installation of Wall and Corner Guards
C. ICRA
    a. Provide Pricing for the installation of ICRA
    b. Provide Pricing for the ICRA maintenance
    c. Provide Pricing for the removal of the ICRA

1.07 ALLOWANCES

A. Not at this time.

END OF SECTION

BID PACKAGE 10
ACOUSTICAL PANEL CEILINGS

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
07 92 10	Interior Joint Sealants
09 51 13	Acoustical Panel Ceilings
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. Acoustical Panel Ceilings

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all acoustical panels, exposed grid suspension systems, wire hangers, wire attachments, fasteners, main runners, joint clips, cross tees, seismic requirements (bars, struts, and clips), and wall angle moldings as noted in the Contract Documents. Scope shall include all soffit details, deck connections, compression struts.
2. Contractor shall furnish and install hanger wire for light fixtures and HVAC registers / grilles.
3. Contractor shall comply with fire test response characteristics testing as noted in the Contract Documents.

4. Contractor shall coordinate all acoustical ceiling work with other bid packages, including but not limited, to building insulation, drywall, light fixtures, HVAC components, control systems (security, fire alarm and access), speakers, access panels, electrical systems and sprinklers.
5. Contractor shall supply device tiles prior to installation ceiling.
6. Contractor shall abide by project conditions and handle all acoustical ceiling units diligently to avoid chipping edges or damaging units in any way.
7. Contractor shall provide all required warranties, maintenance and added stock as noted in the Contract Documents.
8. All suspension systems and panels shall be in accordance with manufacturer's instructions in compliance with ASTM C 636.
9. Contractor shall replace any damaged and/or broken panels. All exposed surfaces of acoustical ceilings including trim, edge moldings and suspension members must be clean.
10. Contractor shall fully coordinate the layout of all acoustical ceiling, main runner locations, etc. with the other bid packages. Contractor shall coordinate layout and conflicts with other bid packages prior to the "framing stage" of construction.

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. None.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an

on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.

G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.

H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.

I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.

J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.

K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. N/A

END OF SECTION

BID PACKAGE 11
PAINT AND WALL COVERING

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
07 92 10	Interior Joint Sealants
09 91 00	Painting
09 96 13	Abrasion-Resistant Coatings
09 97 23	Concrete And Masonry Coatings
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. Paint

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. All exposed conduit and backboxes to be painted to match structure. Confirm exact color with architect prior to installation.
2. Paint inside duct with bitumastic to4' above grill.
3. Contractor shall furnish and paint all exterior concrete, exterior Portland cement (stucco), cementitious substrates, wood, aluminum, and steel (primed and galvanized metal) per the Contract Documents. All painting and material finishing required for the exterior areas of the building and site work as defined by the Contract Documents.

4. Contractor shall prime and paint all new exposed steel columns, beams and diagonal braces, joists, and metal decking as required per the specified color provided in the Contract Documents.
5. Contractor shall furnish and paint all interior concrete, steel, galvanized metal, aluminum (not anodized or otherwise coated), wood, gypsum board, access panels and plaster per the Contract Documents.
6. Contractor shall furnish and install all vinyl wall coverings per the Contract Documents.
7. Contractor shall furnish and install all adhesives, primers, sealers, wall liners, and metal primer as specified in the Contract Documents.
8. Contractor shall furnish and install all vinyl coated fabric coated tackable wall coverings per the Contract Documents.
9. Contractor shall furnish and apply all special coatings at both exterior and interior at specified locations as noted in the Contract Documents.
10. Contractor shall comply with all fire test response characteristics testing as noted in the Contract Documents.
11. Contractor shall coordinate with framing, dry wall and plaster Contractors for caulking and sealing of all joints in the interior and exterior perimeters noted in the Contract Documents.
12. Contractor shall properly clean, prep and prime all surfaces before applying finishes.
13. Contractor shall touch-up paint and finish of new areas as required due to normal damage, splatters and marring caused by the process of the construction work.
14. Contractor shall mask, protect and cover surfaces and items that do not receive paint, including but not limited to, fire-rating labels, exposed concrete/masonry, and fixtures, equipment.
15. Contractor shall remove all debris, empty paint/solvent cans and rags from the building and site area on a daily basis.
16. Contractor shall furnish, utilize, and remove self-contained paint washout facilities/containers for all work related to this scope of work.
17. Contractor shall inspect all surfaces of building components (which are installed by others) prior to start of any work. Application of Contractor's work shall constitute acceptance.
18. Contractor shall coordinate with the Construction Manager prior to proceeding with any work in each room or areas i.e., finish painting in high-traffic areas, e.g., stairwells, corridors, entry and exit areas.
19. Contractor to provide caulking as required for sealing.
20. Provide 60 hours of touch up painting to be used at the Construction Manager’s direction.

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. Bid Package 3 Masonry: Provide and install all masonry sealers.

1.04 CONTRACTOR’S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor’s control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instructions regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. N/A

END OF SECTION

BID PACKAGE 12
FLOORING AND TILE

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
09 65 13	Resilient Base and Accessories
09 65 16	Resilient Sheet Flooring
09 65 23	Section 09 65 23 – Resilient Plank Flooring
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. Flooring

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor to evaluate moisture mitigation at slab after flooring demolition. Verify flooring finishes installation and warranty
2. Contractor shall furnish and install all flooring work.
3. Contractor shall furnish and install all minor filling and floor preparation of concrete floors and floating of walls as required for plumb level and smooth surfaces prior to setting tile. Contractor has reviewed job conditions and has included all work necessary to properly prepare floors. Preparation includes, but is not limited to, crack isolation membrane, bushing high areas, floating low areas, floating transitions, and cleaning.

4. Contractor shall conform to all adhesion tests per the Contract Documents on floor substrate prior to installing work. Provide test results and immediately inform the Construction Manager of any problems.
5. Contractor shall furnish and install all sealants and caulking as required for ceramic tile work.
6. Contractor shall furnish and install all expansion joints, control joints and sealant materials for a complete and watertight installation.
7. Contractor shall furnish and install all divider strips, trimmers and accessories where tile transitions to a dissimilar surface or material.
8. Contractor shall include all cutting and adjusting tile for floor boxes, drains, lavatories, urinals, toilets, toilet accessories and expansion joints as part of this scope of work.
9. Contractor shall comply with and provide the necessary test reports to confirm compliance with required slip-resistant surface criteria for tile products as required in the Contract Documents.
10. Contractor shall furnish and install temporary protection as specified in the Contract Documents.
11. Contractor shall comply with all curing requirements in strict accordance with the Contract Documents and manufacturer's recommendations.
12. Provide all floor prep to ensure level finish and preserve a warranties.
13. Contractor shall provide and perform final cleaning of ceramic tile after completion of the work. Take special care to avoid damaging other trades' finishes.
14. Contractor shall coordinate with all toilet and bath accessories installation by Bid Package 01 Misc. Specialties. Coordinate all backing requirements with Bid Package 09 Framing, Drywall, and Plaster.
15. Contractor shall furnish and install all grout and/or penetrating floor sealer as shown and/or specified in the Contract Documents. Furnish and install specified paper cover curing grout curing process.
16. Furnish and install specified grout sealer per manufacturer's instructions and recommendation after grout has properly cured.
17. Contractor shall field measure all areas prior to fabrication.
18. Contractor shall coordinate with other trades the tile interfaces with fixtures, floors, walls, ceilings, partitions, countertops, drains, and adjacent finishes. In the event of inconsistencies between the Contract Documents or shop drawings, provide written notification to the Construction Manager.
19. A significant portion of other floor finishes may be installed prior to the work of this scope of work. Contractor shall provide all labor, material and equipment necessary to avoid damage to other finish work. This specifically includes, but is not limited to, the following:
20. Providing plywood protection and ramps for material carts when transporting materials.
21. No materials shall be stocked in finished areas.
22. No cutting or polishing of tile shall be allowed near finished areas.
23. Thoroughly clean all tile work after sealer has dried.
24. Furnish and install floor protection, immediately after cleaning of tile work.

D. Carpet and Resilient Flooring

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all carpet tile, sheet carpet, linoleum flooring, resilient sheet flooring, resilient flooring, resilient base and accessories and walk off mats, including flooring in elevator. Include all other specified flooring and base materials, as required by the Contract Documents.
2. Contractor shall perform all floor filling, leveling and underlayment of subfloor substrate, as specified and required by "job conditions". New concrete floor surfaces will be provided to

this Contractor within the specified tolerance. Surface preparation consisting of the following items is included in this scope of work: Filling/leveling at "cold joints," "control joints," "block-outs," and at perimeter conditions. Contractor includes surface cleaning and preparation of substrate as required.

3. Contractor shall be responsible for receipt and storage of all flooring materials and delivery to the project site.
4. Contractor shall furnish and install all trim, accessories, and termination and transition strips at flooring, as required by the Contract Documents and actual job conditions to produce a complete, finished installation.
5. Contractor shall furnish and install all finish flooring in all areas noted on the Contract Documents. Flooring materials and colors shall comply with the Contract Documents and as selected by the Architect.
6. Contractor shall provide all required maintenance stock, as required by the Contract Documents. Properly label, package, deliver and store individual materials at direction of Construction Manager.
7. Contractor shall vacuum and clean all installed surfaces after completion of work to remove excess glue and materials.
8. Contractor shall provide special care to avoid damage to other finishes. Contractor will be held responsible for repairs and cleaning resulting from damage by careless operations.
9. Contractor shall inspect and accept all sub-floor substrate conditions before applying any flooring materials. This includes moisture testing, checking "levelness," and proper alkalinity and adhesion testing. Prior to the start of work, Contractor shall issue correspondence containing results of the moisture tests, alkalinity and adhesion tests, and stating acceptance of substrate conditions.
10. Prior to ordering materials, Contractor shall verify dimensions in the field, and ensure that all specified materials and accessories are fully compatible both in function and in physical dimensions.
11. Contractor shall ensure that base materials are installed continuously on vertical surfaces in all areas where flooring work occurs. Base material shall be installed around cabinets, foot wells, alcoves and other permanently attached building fixtures and components.
12. Contractor shall protect all areas, as specified in the Contract Documents, immediately following completion of flooring work and preliminary inspection of work by the Construction Manager. All protection shall be continuously secured at both perimeter and field seams.
13. Contractor shall install/apply all concrete sealers as shown on contract documents.

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. None.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.

F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. N/A

END OF SECTION

BID PACKAGE 13
FIRE SPRINKLER

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. Fire Sprinkler

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Verify existing sprinklers system with sprinkler contractor prior to demolition. Sprinkler contractor to modify and maintain system code requirements throughout the project.
2. Provide complete design for deffered approval
3. The Contractor shall furnish and install a complete building fire sprinkler system. Provide all necessary equipment but not limited to, fire sprinkler risers, exterior fire department connections, fire system control valves, supervisory tamper/flow switches, electric alarm bell/gong, piping, flex couplings, pendant heads (exposed and recessed), and spare materials/devices, as required.
4. Contractor shall furnish all layout work required to install work in this subcontract.
5. Contractor shall provide progressive clean up, final clean up and hauling off-site, all debris associated with Contractor's work.
6. Contractor shall furnish and install miscellaneous valve boxes and frames, as required for work.

7. Contractor shall furnish and install all firestopping caulking and packing materials required to encase piping at points of penetration through fire-rated and smoke-rated construction. Include all hangers, supports, angles, sleeves, access doors required for a complete installation.
8. Contractor shall furnish and install all fire protection systems in the exterior areas as indicated in the Contract Documents.
9. Contractor shall install all heads and escutcheons in the center of all architectural ceiling tiles and elements. Contractor shall coordinate with Bid Package 09 Framing, Drywall and Plaster.
10. Contractor shall comply with all National, State, Local codes and the Authority having Jurisdiction, standards, policies, and requirements.
11. Contractor shall perform all testing (hydrostatic and flow) and flushing of new systems as required complying with approving agency requirements and the Contract Documents.
12. Contractor shall furnish and install all tamper/flow switches and additional monitoring devices as required for a complete system. The line voltage connection to the fire alarm panel is provided by Bid Package 6 Electrical.
13. Contractor shall install fire sprinkler drain systems as required by code, governing authorities, and the Contract Documents. All drain outlets shall be located by Contractor at the exterior of the building or tie into sewer/storm drain systems as required. Specific approval of drain locations must be obtained in writing from the Architect prior to installation.
14. Contractor shall furnish and install all finish heads per Contract Documents.
15. Contractor shall provide and install all required seismic restraints.
16. Contractor shall furnish and install all counter flashing, caulking or fire caulking for all wall penetrations associated with this work.
17. Contractor shall fill all penetrations with approved waterproofing material or link seal as required.
18. Contractor shall provide detailed coordination drawings showing all main and branch piping and sprinkler heads in compliance with Building Information Model requirements in contractor's scope below.
19. Contractor shall properly coordinate the locations and dimensional requirements (including specific dimensions shown on the plans) of all work items with all other work items so that conflicts, incorrect locations, inadequate space/clearance, and similar types of circumstances are avoided. Contractor shall verify that all work items will fit within the designed wall cavities, ceiling spaces, and furred areas before any affected building elements are constructed, e.g., foundations, slab on grade, and elevated decks.
20. Contractor shall perform all coring and/or sleeving (as required by actual project requirements) for this scope of work. If required, include proper types of steel sleeves at penetrations. Any coring that is necessary through the existing structure shall be reviewed and approved by the Owner prior to performing coring and/or sleeving.
21. Contractor shall maintain the designed fire/smoke/sound ratings at all penetrations/pockets/recesses in the building construction. All sleeves and penetrations shall be sealed by Contractor with materials that are either specified or approved by the Architect.
22. Contractor shall furnish and install all necessary angles, clamps, hangers, channels, unistrut, supports, wires, cables, threaded rod, miscellaneous steel, isolation devices, seismic anchorage, slack wires, and backing for all fire sprinkler work, equipment, piping and miscellaneous items. All work shall comply with applicable codes and Contract Document requirements. In areas congested by trades with priority space requirements (e.g., ductwork, conduit, and waste lines) as determined by the coordination drawings, Contractor shall provide secondary supports below the upper systems as required to support the fire sprinkler system. Secondary supports shall be connected by Contractor to the building structure.
23. Contractor to provide lead flashing at all roof penetrations included in this bid package compatible with specified roof system.

24. Contractor shall furnish and install steel stiffener angles and /or metal deck reinforcement on the metal decking at locations where piping penetrates the floors. Contractor shall reference the Contract Documents and/or structural plans for requirements.
25. Contractor shall furnish and install proper support, per Contract Documents, under roof mounted piping.
26. Contractor shall include all fire sprinkler and similar related work items as may be referenced throughout the Contract Documents by typical notations, such as “by Fire Sprinkler Contractor,” “by Contractor,“ “by General Contractor,” or "FS".
27. All of Contractor’s work shall fully comply with current handicap codes (even if contrary to the Contract Documents and submittal approvals by the Engineer). Contractor shall request specific written direction from Contractor before proceeding with any work that is noncompliant.
28. In areas where new fire sprinkler systems are installed, Contractor’s cutting work shall be kept to an absolute minimum. Where possible, neat holes shall be cut in the finished surfaces and access panels shall be furnished and installed by Contractor. The methods of installation and locations of access to such concealed areas shall be approved by both the Architect and the Contractor prior to start of work. Contractor shall be responsible for the costs of patching and repair of areas only in cases where excessive removal and/or improper layout are performed by Contractor. As applicable, Contractor shall remove and replace various existing building components, e.g., acoustic ceiling panels, as required to facilitate installation of work. Damage as a result of mishandling, to such items that are to be salvaged, will be paid for by Contractor.
29. Contractor shall perform all specified labeling, stenciling, tagging, and identification of all equipment, piping, and devices, which are included in this scope of work.
30. Contractor shall provide all access doors that are required for the fire sprinkler system. The proper type and finish of architectural access doors shall be provided by Contractor. The type and finish may or may not be specifically listed in the fire sprinkler and/or architectural specification sections. Contractor shall coordinate all openings with the respective other bid packages, e.g., framing or acoustic ceiling. Bid Package 08 Framing, Drywall, Plaster and Ceiling Tile shall provide the openings in the metal framing systems and install the access panels.
31. Coordinate with other Contractor of the installation of devices, controls and sensor
32. Contractor shall notify all appropriate parties a minimum of 48 hours prior, as required by the Contract Documents, when deactivating fire protection systems.

PROJECT BUILDING INFORMATION MODELING (BIM) GUIDELINES

1. INTRODUCTION

1.1 A Building Information Model (BIM) will be developed by the Construction Manager and the Prime Contractors (Structural, Mechanical, Electrical, Plumbing and Fire Protection). The BIM will integrate architectural, structural, mechanical, electrical, plumbing and fire protection systems and components into a virtual model to improve trade coordination, streamline the construction process, and accurately reflect final as-built conditions.

2. MODELING REQUIREMENTS

2.1 Each Prime Contractor shall produce a trade-specific 3-D model which contains solid 3-D geometry (not lines or wire frames) that represents the actual dimensions of the building elements that will be installed on the project.

2.2 The following trades are required to produce a 3-D model:

- Structural Steel
- Plumbing

- Fire Sprinkler
- Electrical
- HVAC

2.3 Roofing and Acoustical Ceiling Tile will have to provide information and coordinate with the trades listed above.

2.4 Building systems will be organized as separate models linked to a common elevation, origin and benchmark for efficient and accurate coordination purposes. Each floor shall be created as a separate level in the authoring software, and all trades shall reference a shared and documented insertion point and methodology for developing these files.

2.5 BIM Level of development (LOD) requirement.

LOD 400 per the AIA BIM Protocol (E202) will be required. Model detail shall include, but not limited to, all system fittings, equipment, valves, flanges, insulation, hangers, braces, maintenance access areas, and code-enforced clearance requirements. Structural elements such as foundations, pits, slabs, decks, beams, columns, connector plates, gusset plates and braces shall be modeled. Prime Contractors are encouraged to also include any and all objects that would facilitate the coordination with other applicable trades. A trade-specific LOD chart will be distributed by the Construction Manager at the beginning of the coordination process.

2.6 Layer names of model objects shall be logical, accurate and consistent throughout the BIM.

2.7 Two-dimensional shop drawings, submittal drawings, and as-built drawings shall be extracted from the Project BIM, formatted and submitted to the Design Team in compliance with the Contract Documents by each respective prime contractor.

3. TECHNOLOGY PLATFORM AND SOFTWARE

3.1 It is the responsibility of the Prime Contractor to have or obtain the proper hardware and software needed to successfully complete the BIM 3-D coordination process.

3.2 The choice of 3-D modeling software is open, but any software utilized must be able to export to a .DWG file format. Parametric modeling programs with direct .NWC/.NWD export options are preferred.

3.3 Prime Contractors are encouraged to have Navisworks Manage to conduct in-house clash detection and coordination prior to coordination meetings.

4. QUALIFICATIONS OF BIM PERSONNEL

4.1 It is the responsibility of the Prime Contractor to have or obtain trained personnel to successfully participate in the BIM 3-D modeling and coordination process. Personnel participating in the modeling and coordination efforts must be proficient in the use of all hardware and software required and must have field application/installation knowledge and experience necessary to make coordination decisions for their scope of work.

4.2 The Prime Contractor assigned personnel will be required to have access to an email account and the internet for file sharing and participation in web-based coordination meetings.

5. PARTICIPATION REQUIREMENTS

5.1 Each Prime Contractor is required to actively participate in on-site and web-based BIM coordination meetings. Coordination meetings must be attended by each Prime Contractor's Qualified BIM Personnel throughout the duration of the project, the majority of which will be web-based. Field personnel are also encouraged to attend these coordination meetings for constructability input.

5.2 The purpose of the BIM coordination meetings will be to identify, track and document interferences and clashes between the trades that require Construction Manager's facilitation

and/or changes in contract document design. Prime Contractors shall conduct proactive model review and clash detection and coordination with other trades between meetings and arrive to meetings prepared with a list of unresolvable items to discuss.

5.3 Coordination software will be utilized to assemble the various models and provide a report of coordination and/or design issues, usually within 24 hours of the meeting. The report will be reviewed by the team members and agreed upon solutions shall be implemented into the 3-D models in a timely fashion by the respective trade. Implementation includes re-modeling, re-analyzing, and re-distributing the updated BIM. This process will be repeated until all coordination issues are resolved.

5.4 A detailed coordination schedule will be developed and distributed by the Construction Manager at the beginning of the BIM coordination process.

6. BIM WORK PLAN

6.1 At the commencement of the BIM coordination process, a BIM Work Plan will be issued by the Construction Manager which will include:

a. Project sequence and schedule for initial delivery of each model

b. Schedule for updating of each model and preservation of versions of each model

c. File formats used for project submittal and file exchange

d. Compliance with Folder Structure, File Naming, Object naming conventions

e. Utilization of Web Site and FTP Sites

f. Trade-specific LOD requirements

g. Model origin (common 0,0,0 location)

h. Coordination report format

i. Model sign-off procedure

j. Field validation

k. As-built model creation

l. Final BIM deliverable

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. Bid Package 5 Plumbing and Site Utilities: Contractor to provide fire riser to 6” above finish floor.

1.04 CONTRACTOR’S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor’s control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.

F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. N/A

END OF SECTION

BID PACKAGE 14
PLUMBING

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
07 41 13	**Metal Roof Panels**
07 84 00	**Firestopping**
22 05 00	**Common Work Results for Plumbing**
22 05 19	**Meters And Gages for Plumbing Piping**
22 05 23	**General-Duty Valves for Plumbing Piping**
22 05 29	**Hangers And Supports for Plumbing Piping and Equipment**
22 05 53	**Identification For Plumbing Piping and Equipment**
22 07 00	**Plumbing Insulation**
22 08 00	**Commissioning Of Plumbing**
22 11 16	**Domestic Water Piping**
22 11 19	**Domestic Water Piping Specialties**
22 13 16	**Sanitary Waste and Vent Piping**
22 13 19	**Sanitary Waste Piping Specialties**
22 40 00	**Plumbing Fixtures**
22 63 13	**Gas Piping for Laboratory and Healthcare Facilities**
23 05 00	**Common Work Results For HVAC**
23 05 13	**Common Motor Requirements for HVAC Equipment**
23 05 23	**General-Duty Valves for HVAC Piping**
23 05 29	**Hangers and Supports for HVAC Piping And Equipment**
23 05 53	**Identification For HVAC Piping and Equipment**
23 05 93	**Testing, Adjusting, And Balancing For HVAC**
23 21 13	**Hydronic Piping**
23 22 13	**Steam And Condensate Heating Piping**
23 23 00	**Refrigerant Piping**
TIO	**Testing, Inspection, and Observation Program**
Division 1	**General Requirements***

* As applicable to work within this Bid Package.

B. Site Utilities

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor to provide, install, connect all domestic water, fire water, sanitary sewer, vent and storm drain systems, fire hydrants, post indicator valves, backflow preventers, supports, test cocks required for testing, water meters and water boxes, manhole assemblies, catch basis, inlets, vaults, vortex separation units, cleanouts, traffic rated vaults, cleanouts, perforated pipe, trench drains, sub-drains, “burrito wrap” systems, piping insulation and identification as required in Contract Documents. Include any necessary temporary valves for utility relocations.
2. Contractor shall furnish and install all roof drain/overflow drain piping and foundry type curb openings.
3. Contractor shall furnish and install all valve boxes, frames, and grates, manhole covers and frames.
4. Contractor shall install drain bodies as shown on existing storm drain risers.

5. Contractor shall coordinate with Bid Package for Fire Sprinkler System for acceptance and verification that underground system has been properly flushed and is acceptable for the fire system.
6. Contractor shall supply coring and saw cutting and removal as required for installation of work within this scope of work where openings are not specifically shown to be performed by others. Obtain approvals where required. Restore adjacent surfaces to their original condition, including all patchwork as required.
7. Contractor shall furnish and install all waste line and storm drain clean-outs as specified and as required by code to provide proper access to all points of the system. Clean-outs shall be located in a manner that does not interfere with any building components and at inconspicuous locations. Exterior clean-outs shall not be installed in paved areas without consent of Architect. Exterior clean-outs shall be installed in landscape areas whenever possible.
8. Contractor shall furnish and install all final connections of work to existing services, new equipment, work supplied under this scope of work, equipment, and components supplied by others as defined by the Contract Documents.
9. Contractor shall perform flushing and sterilizing of the domestic water piping systems. Disconnect/reconnect water mains at meters as required to charge system with chemicals. Contractor shall provide chlorinating certificates at completion of all testing. Contractor shall properly flush all exterior faucets (without strainers installed), fixture supply valves, toilet flush valves, etc. Contractor shall provide bacteria testing results upon completion of work.
10. Contractor shall perform all hot tapping of service connections, as required to satisfy the provisions of the Contract Documents and local building codes and ordinances.
11. Contractor shall be responsible for all site utility related digging, shoring and backfill for the installation of this scope of work. All digging and shoring shall comply with the necessary specification, OSHA regulations and code requirements. All backfill shall be in accordance with the Contract Documents.
12. Contractor shall perform "snaking" of all sewer and storm drains and flow testing at conclusion of project.
13. Contractor shall furnish and install any sealants as required for complete installation.
14. Contractor shall protect all uninstalled pipe materials that are stored on-site from damage or contamination.
15. Contractor shall furnish and install concrete plugging of all piping systems that are abandoned in-place, as shown.
16. Contractor shall repair or replace any crushed or broken lines/connections which occur to any type of piping installed by Contractor during construction or upon discovery in the final video (unless another party has been determined to be at fault). This responsibility extends to the removal and proper placement of any existing conditions required to be disturbed to make appropriate repairs.
17. Contractor shall furnish and install all necessary unistrut, angles, channels, brackets, backing, threaded rod, and miscellaneous steel fasteners as required to install all fixtures and piping work included in this scope of work, including seismic supports and sway bracing. All work shall comply with applicable codes and Contract Documents. In areas congested by trades with priority space requirements (e.g., ductwork and waste lines) as determined by the coordination drawings, Contractor shall provide secondary supports below the upper systems as required to support Contractor's work. Contractor shall connect secondary supports to the building structure.
18. Contractor shall properly secure all sleeves, work, and fixtures that are cast into concrete work so that movement does not occur during placement. Contractor shall verify proper location and placement before concrete placement

<u>Plumbing</u>

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor will provide all necessary Safe Off.
2. Contractor shall furnish and install all plumbing work within the building and site interface to the designated point of connections outside and inside the facility including but not limited to domestic water (hot and cold), storm drain lines, sewer lines, waste and vent lines, foundation drainage systems, "burrito wrap" systems, natural gas and storm drain systems, water heaters (electric), drains (area, trench, floor, standpipe, overflow and roof), drinking fountains, eyewash stations, water hammer arrestors, hose bibs, condensate drain systems, plumbing fixtures, gas turrets, and equipment (lavatories, water closets, urinals, sinks, floor sinks, mop sinks, traps, primers, catch basins, supply boxes, valves (mixing and standard) and regulators, thermal expansion tanks, circulating pumps, backflow preventers, and piping insulation as required by the Contract Documents for complete and functioning systems.
3. Contractor is responsible for all plumbing related trenching and backfill. Excess spoil material is to be removed from the site and properly disposed of. Spoils are not allowed to be stockpiled on site and must be removed from the site on a consistent basis.
4. Contractor shall coordinate all work in ceiling and wall cavities with all other bid packages to ensure all required ceiling heights and clearances can be maintained.
5. Contractor shall seal and /or caulk all penetrations through walls, slabs and ceilings, as required to maintain fire rating, weather infiltration, and water tightness.
6. Contractor shall furnish and install all natural gas piping (underground and aboveground). Contractor shall include earthquake valves, as shown and/or specified in the Contract Documents and as required by local building codes/agencies.
7. Contractor shall furnish and install all sewer and domestic water systems. Contractor to provide drywells and final connections as shown on Contract Documents.
8. Contractor shall furnish and install all roof drain/overflow drain piping and foundry type curb openings from the building line to the face of the curbs. Contractor shall include all saw cutting, demolition and removal of existing curb as required.
9. Contractor shall furnish and install vibration isolators and steel support systems for plumbing equipment.
10. Contractor shall furnish and install all valve boxes, frames, and grates.
11. Contractor shall furnish and install all condensate drainage systems.
12. Contractor shall furnish and install protective insulation and covering over all exposed fixture piping and valves as specified and handicap codes, including stainless steel metal pipe covers over sink drain piping.
13. Contractor shall protect all uninstalled pipe materials that are stored on-site from damage or contamination.
14. Contractor shall furnish and install drain pans, drain traps, and all other associated piping at the water heaters.
15. Contractor shall furnish and install all waste line clean-outs as required by code and by the Contract Documents and as required to provide proper access to all points of the system. Clean-outs shall be located in a manner that does not interfere with any building components and at inconspicuous locations. Unless otherwise specifically approved by the Architect, floor clean-outs shall not be located in marble, tile or wood floors nor shall wall clean-outs be located in aesthetically significant walls. Provide cleanout above all urinals.
16. Contractor shall furnish and install water heater flue systems, from the connection at the water heater through the termination point above the roof. All vents shall be sized in accordance with the plans and shall meet the minimum size-requirements by the water heater manufacturer.
17. Contractor shall perform cleaning out and flow testing of all piping systems prior to project completion.

18. Contractor shall furnish and install final connection of work to existing services, new equipment, work supplied under this scope of work, equipment, and components supplied by other bid packages.
19. Contractor shall perform flushing and sterilizing domestic water piping systems required by the work of this scope of work. Disconnect/reconnect water mains at meters as required to charge system with chemicals. Contractor shall provide chlorinating certificates at completion of all testing. Contractor shall properly flush all faucets (without strainers installed) fixture supply valves, and toilet flush valves. Contractor shall provide bacteria testing results upon completion of work. Testing is to be witnessed and test sheets turned over to the Contractor as soon as available and also as part of closeout documents.
20. Contractor shall furnish and install protection to installed sewer, roof and storm drain systems and water systems from damage or contamination until completion.
21. Contractor shall polish all floor drain covers at conclusion of project.
22. Contractor shall participate in trade coordination meetings and prepare shop drawings coordinating installations with products and materials provided by other entities. These coordination drawings shall include areas where limited space availability necessitates maximum utilization of space for efficient installation of different components and identification of any areas of potential conflict.
23. Contractor shall properly coordinate the locations and dimensional requirements (including all specific dimensions shown on the plans) with all bid packages so that conflicts, incorrect locations, inadequate space/clearance, and similar types of circumstances are avoided. Contractor shall also verify that all work items will fit within the designed wall cavities, ceiling spaces and furred areas before any affected building elements are constructed, e.g., foundations, slab on grade, and elevated decks.
24. Contractor shall perform all coring, block-outs and sleeving, as required by actual plumbing project requirements. If required, include proper types of steel sleeves at penetrations.
25. Contractor shall maintain the designed fire/smoke/sound ratings at all plumbing penetrations/pockets/recesses in the building construction. All sleeves and penetrations e.g., piping, fixtures, and equipment shall be firestopped by this Contractor with materials that are either specified or approved by the Architect.
26. Contractor shall furnish and install all necessary unistrut, angles, channels, brackets, backing, threaded rod, and miscellaneous steel fasteners as required to install all fixtures and piping work, including seismic supports and sway bracing. In areas congested by trades with priority space requirements (e.g., ductwork and waste lines) as determined by the coordination drawings, Contractor shall provide secondary supports below the upper systems as required to support Contractor's work. Contractor shall connect secondary supports to the building structure.
27. Contractor shall furnish and install steel stiffener angles and deck reinforcing on the metal decking at locations where piping penetrates the floor and roof decks. Reference the Contract Documents for requirements.
28. Contractor shall furnish and install proper supports under piping and similar items that run horizontally on the roof membrane.
29. Contractor shall furnish and install non-lead roof jacks for all piping penetrations on the roof. Each piping penetration shall be a minimum of 18" from raised platforms, curbs, and adjacent penetrations. Roof penetrations shall not interfere with the operation or servicing of equipment (i.e., piping shall not be located in front of equipment access doors). Bid Package 06 Roofing and Sheet Metal shall approve all roof jacks prior to installation.
30. The locations, configuration, sizes, and height of roof penetrations shall be fully compatible with the type of roof system and manufacturer's warranty. The design, proper sequence, and installation of jacks, flashings, and drains shall be coordinated with the installation of the roofing system.

31. Contractor shall verify the exact location and finished height of each floor and deck drain in the interior rooms and exterior areas of the building before installation. Each drain shall be verified by Contractor as fully compatible and appropriate with the water proofing systems and thickness of the composite floor materials. The location of the drains shall be placed by Contractor properly, symmetrically and as required to avoid conflict with all other building components, e.g., toilet partitions.
32. Contractor shall furnish and install all access doors required for plumbing work. The proper type and finish of architectural access doors shall be provided. The type and finish may or may not be specifically listed in the plumbing and/or architectural specification sections. Contractor shall coordinate all openings with the respective Contractors, e.g., framing and acoustic ceiling. Bid Package 09 Framing, Drywall and Plaster provide the openings in the metal framing systems.
33. Contractor to participate Project Building Information Modeling per the below guidelines and requirements.
34. Lower Level Plumbing demo to be provided by Plumbing Contractor

PROJECT BUILDING INFORMATION MODELING (BIM) GUIDELINES

1. INTRODUCTION

1.1 A Building Information Model (BIM) will be developed by the Construction Manager and the Prime Contractors (Structural, Mechanical, Electrical, Plumbing and Fire Protection). The BIM will integrate architectural, structural, mechanical, electrical, plumbing and fire protection systems and components into a virtual model to improve trade coordination, streamline the construction process, and accurately reflect final as-built conditions.

2. MODELING REQUIREMENTS

2.1 Each Prime Contractor shall produce a trade-specific 3-D model which contains solid 3-D geometry (not lines or wire frames) that represents the actual dimensions of the building elements that will be installed on the project.

2.2 The following trades are required to produce a 3-D model:

- Structural Steel
- Plumbing
- Fire Sprinkler
- Electrical
- HVAC

2.3 Roofing and Acoustical Ceiling Tile will have to provide information and coordinate with the trades listed above.

2.4 Building systems will be organized as separate models linked to a common elevation, origin and benchmark for efficient and accurate coordination purposes. Each floor shall be created as a separate level in the authoring software, and all trades shall reference a shared and documented insertion point and methodology for developing these files.

2.5 BIM Level of development (LOD) requirement.

LOD 400 per the AIA BIM Protocol (E202) will be required. Model detail shall include, but not limited to, all system fittings, equipment, valves, flanges, insulation, hangers, braces, maintenance access areas, and code-enforced clearance requirements. Structural elements such as foundations, pits, slabs, decks, beams, columns, connector plates, gusset plates and braces shall be modeled. Prime Contractors are encouraged to also include any and all objects that

would facilitate the coordination with other applicable trades. A trade-specific LOD chart will be distributed by the Construction Manager at the beginning of the coordination process.

2.6 Layer names of model objects shall be logical, accurate and consistent throughout the BIM.

2.7 Two-dimensional shop drawings, submittal drawings, and as-built drawings shall be extracted from the Project BIM, formatted and submitted to the Design Team in compliance with the Contract Documents by each respective prime contractor.

3. TECHNOLOGY PLATFORM AND SOFTWARE

3.1 It is the responsibility of the Prime Contractor to have or obtain the proper hardware and software needed to successfully complete the BIM 3-D coordination process.

3.2 The choice of 3-D modeling software is open, but any software utilized must be able to export to a .DWG file format. Parametric modeling programs with direct .NWC/.NWD export options are preferred.

3.3 Prime Contractors are encouraged to have Navisworks Manage to conduct in-house clash detection and coordination prior to coordination meetings.

4. QUALIFICATIONS OF BIM PERSONNEL

4.1 It is the responsibility of the Prime Contractor to have or obtain trained personnel to successfully participate in the BIM 3-D modeling and coordination process. Personnel participating in the modeling and coordination efforts must be proficient in the use of all hardware and software required and must have field application/installation knowledge and experience necessary to make coordination decisions for their scope of work.

4.2 The Prime Contractor assigned personnel will be required to have access to an email account and the internet for file sharing and participation in web-based coordination meetings.

5. PARTICIPATION REQUIREMENTS

5.1 Each Prime Contractor is required to actively participate in on-site and web-based BIM coordination meetings. Coordination meetings must be attended by each Prime Contractor's Qualified BIM Personnel throughout the duration of the project, the majority of which will be web-based. Field personnel are also encouraged to attend these coordination meetings for constructability input.

5.2 The purpose of the BIM coordination meetings will be to identify, track and document interferences and clashes between the trades that require Construction Manager's facilitation and/or changes in contract document design. Prime Contractors shall conduct proactive model review and clash detection and coordination with other trades between meetings and arrive to meetings prepared with a list of unresolvable items to discuss.

5.3 Coordination software will be utilized to assemble the various models and provide a report of coordination and/or design issues, usually within 24 hours of the meeting. The report will be reviewed by the team members and agreed upon solutions shall be implemented into the 3-D models in a timely fashion by the respective trade. Implementation includes re-modeling, re-analyzing, and re-distributing the updated BIM. This process will be repeated until all coordination issues are resolved.

5.4 A detailed coordination schedule will be developed and distributed by the Construction Manager at the beginning of the BIM coordination process.

6. BIM WORK PLAN

6.1 At the commencement of the BIM coordination process, a BIM Work Plan will be issued by the Construction Manager which will include:

a. Project sequence and schedule for initial delivery of each model

b. Schedule for updating of each model and preservation of versions of each model

c. File formats used for project submittal and file exchange

d. Compliance with Folder Structure, File Naming, Object naming conventions

e. Utilization of Web Site and FTP Sites

f. Trade-specific LOD requirements

g. Model origin (common 0,0,0 location)

h. Coordination report format

i. Model sign-off procedure

j. Field validation

k. As-built model creation

l. Final BIM deliverable

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. None.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an

on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.

G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.

H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.

I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.

J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.

K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. N/A

END OF SECTION

BID PACKAGE 15
HVAC

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
07 84 00	Firestopping
22 05 00	Common Work Results for Plumbing
22 05 19	Meters And Gages for Plumbing Piping
22 05 23	General-Duty Valves for Plumbing Piping
22 05 29	Hangers And Supports for Plumbing Piping and Equipment
22 05 53	Identification For Plumbing Piping and Equipment
22 07 00	Plumbing Insulation
22 08 00	Commissioning Of Plumbing
22 11 16	Domestic Water Piping
22 11 19	Domestic Water Piping Specialties
22 13 16	Sanitary Waste and Vent Piping
22 13 19	Sanitary Waste Piping Specialties
22 40 00	Plumbing Fixtures
22 63 13	Gas Piping for Laboratory and Healthcare Facilities
23 05 00	Common Work Results For HVAC
23 05 13	Common Motor Requirements for HVAC Equipment
23 05 23	General-Duty Valves for HVAC Piping
23 05 29	Hangers and Supports for HVAC Piping And Equipment
23 05 53	Identification For HVAC Piping and Equipment
23 05 93	Testing, Adjusting, And Balancing For HVAC
23 07 00	HVAC Insulation
23 08 00	Commissioning Of HVAC
23 09 00	Instrumentation And Control For HVAC
23 09 93	Sequence Of Operations for HVAC Controls
23 21 13	Hydronic Piping
23 22 13	Steam And Condensate Heating Piping
23 23 00	Refrigerant Piping
23 31 13	Metal Ducts
23 33 00	Air Duct Accessories
23 34 00	HVAC Fans
23 36 16	Variable-Air-Volume Units
23 37 13	Diffusers, Registers, And Grilles
23 41 00	Particulate Air Filtration
23 81 29	Variable Refrigerant Flow HVAC Systems
23 84 13	Humidifiers
26 05 19	Low-Voltage Electrical Power Conductors and Cables
26 22 00	Low-Voltage Transformers
26 24 16	Panelboards
26 27 26	Wiring Devices
26 28 13	Fuses
26 28 16	Enclosed Switches and Circuit Breakers
26 43 13	Surge Protective Devices for Low-Voltage Electrical Power Circuits
26 51 00	Interior Lighting
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. HVAC

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor will provide all necessary Safe Off.
2. Install and maintain temporary by passes.
3. Rebalance after demo to ensure air balance is the same as the pretest values.
4. Rebalance if construction work impacts the air balance to adjoining areas.
5. Demolish existing therapy space and associated mechanical infrastructure back to the supply exhaust and return mains.
6. Install new mechanical infrastructure to support two new cardiac cath labs, associated post/pre-op bays and support spaces.
7. Install new mechanical infrastructure to support expansion of the existing hyperbaric chamber.
8. Contractor shall furnish and install all HVAC system components as required by the Contract Documents, including but not limited to: air handling equipment, exhaust systems, piping systems, ductwork systems, split systems, building automation and control systems. Reference Divisions 22, 23, 26 and 27 and the Contract Documents for specific criteria included in the project's HVAC systems.
9. Contractor shall furnish and install all flues, vent pipes, and caps for HVAC equipment within the areas as indicated in the Construction Documents.
10. Contractor shall furnish and install all condensate pumps and secondary drain pans where shown and / or specified.
11. Contractor shall furnish and install all fire and smoke dampers as shown on the Contract Documents and as required.
12. Contractor shall furnish and install all ductwork specified to laboratory fume hood and make all necessary final connections.
13. Contractor shall furnish and install angles, clamps, hangers, channels, Unistrut, supports, wires, cables, threaded rod, miscellaneous steel, isolation devices, seismic anchorage, slack wires, backing, and blocking for all HVAC work, equipment and miscellaneous items per the Contract Documents. All work shall comply with applicable Codes and Contract Document requirements. Contractor shall furnish design for approval for all anchorage per the Contract Documents.
14. Contractor shall furnish and install all louvers and roof hoods directly related to the HVAC system that are shown on the Contract Documents and/or directly connected to ductwork. Include steel angles, bird screens, and associated flashing/caulking. Inform Construction Manager of any louver and/or hood sizes that are not in conformance with free open area requirements. Coordinate all openings with other bid packages.
15. Contractor shall furnish and install all pitch pans, roof jacks, sheet metal enclosures, sheet metal caps, duct collars, flashings/counter flashings and caulking as required for roof or exterior wall penetrations of equipment, ductwork, piping, and supports. All pitch pockets/penetrations shall have a minimum of 18" horizontal separation between adjacent penetrations, unless specifically described otherwise by the Contract Documents. Install roof penetrations, piping, and equipment in accessible locations to allow adequate service clearance for normal maintenance without requiring removal of architectural, plumbing, and electrical, or structural elements. Contractor shall paint inside of ductwork black where exposed through registers.
16. Contractor shall furnish and install all miscellaneous sheet metal work associated with and required for the mechanical work.
17. Contractor shall design, furnish and install all anchorage for equipment over 400 lbs.
18. Contractor shall furnish and install all fire, smoke, and backdraft dampers as shown on the Contract Documents and as required to maintain rated construction. Include all fire-rated caulking and packing materials required to encase ducts and damper assemblies at points of penetration through fire-rated and smoke-rated construction. Include all steel angles, sleeves, access doors, and accessories required for a complete installation.

19. Contractor shall furnish and install all ductwork insulation, duct silencers, and acoustical duct lining as specified in the Contract Documents.
20. Contractor shall furnish and install, unless otherwise specifically identified in the contract documents, volume dampers on supply, return, and exhaust duct branches (whether shown on plans or not) for proper balancing of the air distribution. Opposed blade damper at diffusers and registers shall not be used for balancing.
21. Contractor shall perform all independent air/water balance testing, adjustments and reports in accordance with the Contract Documents.
22. Contractor shall furnish and install all vibration isolators, steel support rails and frames for HVAC equipment as required by the Contract Documents.
23. Contractor shall furnish and install all "Construction" filters on all air handling equipment during the construction period and initial start-up procedures. Final filters shall be installed at a time as directed by the Construction Manager and just prior to Owner occupancy. Contractor shall be responsible for protecting open ductwork from dust and debris during construction and perform all duct cleaning of new and existing as per the Contract Documents.
24. Contractor shall furnish and install all prefabricated roof curbs for all rooftop ductwork penetrations, HVAC units, exhaust fans and equipment. Include wood nailers, insulation board, sheet metal flashings and other items so that the roofing system can properly terminate at the top of the curb and provide a watertight condition.
25. Contractor shall furnish and install all supports under roof mounted piping. Contractor shall furnish and install all required wall piping supports as required and specified in the Contract Documents.
26. Contractor shall furnish and install all conduit rough in, wiring, step down transformers, and final terminations for all HVAC energy management/temperature control systems, including but not limited to interface exhaust systems, thermostats, time clocks, motion detectors, fire alarm, or other types of control systems as shown in the Contract Documents.
27. Contractor shall provide all caulking and sealing of all sleeves and penetrations for ductwork, piping, conduits, and equipment to that of dissimilar materials as required for weatherproofing, appearance and fire or sound rating, that are either specified by the Contract Documents or approved by the Architect.
28. Contractor to provide lead flashing at all roof penetrations included in this bid package compatible with the specified roof system.
29. Contractor shall provide and install all access doors that are required for HVAC equipment, components and systems. Proper type and finish of architectural access doors shall be in accordance with the Contract Documents. Contractor shall coordinate all opening sizes with other bid packages.
30. Contractor shall properly coordinate the locations and dimensional requirements (including all specific dimensions shown on the plans) of all work items with all other bid packages work items so that conflicts, incorrect locations, inadequate space/clearance, and similar types of circumstances are avoided. Examples of such work items include ductwork, piping, equipment items, disconnect switches, control modules, and dampers. Contractor shall also verify that all work items will fit within the designed wall cavities, ceiling spaces and furred areas before any affected building elements are constructed, e.g., foundations, slab on grade, and elevated decks.
31. Contractor shall coordinate exact location of all ceiling diffusers, registers, and grilles with lighting layout, ceiling tile pattern and type, and ceiling construction with Architectural reflected ceiling plans. In addition, Contractor shall coordinate location of ceiling and wall access panel for items requiring access such as fire dampers, combination smoke/fire dampers, volume dampers, and other devices requiring access.
32. Contractor shall fully coordinate with Bid Package 06 Electrical with regards to the line voltage conduit rough in and final termination locations for all HVAC systems. Contractor has reviewed all the Contract Documents and acknowledges that each bid package, responsibility to furnish and install each of the specified/shown components, conduit systems, equipment items and low/line voltage wiring are clearly defined between the Divisions 22, 23, 26, 27, and 28 so that all items required by the Contract Documents are installed. In addition to the above

requirements, Contractor shall furnish/install the low voltage conduit and wire system for the temperature control systems and any line voltage controls that are not shown or specified in Division 26 (e.g. ductless split systems).

33. Contractor shall fully coordinate with Bid Package 14 Fire Sprinklers and Bid Package 06 Electrical with regards to the smoke/fire dampers duct/mechanical equipment, and smoke detection systems. Contractor has reviewed all the Contract Documents and acknowledges that each bid package is responsible to furnish and install each of the specified/shown components, conduit systems, equipment items, and low/line voltage wiring are clearly defined between the Division Divisions 21, 22, 23 and 26 so that all items required by the Contract Documents are installed. In addition to the above requirements, Contractor agrees to install fire/smoke duct detectors.
34. Contractor shall understand that all major equipment items shall be delivered to the site in appropriate-sized sections as required to allow for adequate lifting equipment, hoisting, and rigging to install the equipment in each mechanical room/roof through the physical space and openings allowed by the completed building structure. Contractor shall place all equipment within these areas at scheduled times as designated by the Construction Manager to avoid delays to the surrounding work.
35. Contractor shall participate in trade coordination meetings and prepare shop drawings coordinating installations with products and materials provided by other entities. These coordination drawings shall include areas where limited space availability necessitates maximum utilization of space for efficient installation of different components and identification of any areas of potential conflict. See BIM Guidelines under 1.06 below.
36. Contractor shall protect the roofing membrane and/or waterproof deck coating systems with temporary plywood protection during the installation of the HVAC work in such areas.
37. The locations, configuration, sizes and height of roof penetrations shall be fully compatible with the type of roof system and manufacturer's warranty. Bid Package 08 – Roofing and Sheet Metal shall approve all such items prior to installation. The design, proper sequence and installation of jacks/flashings shall be coordinated with the installation of the roofing system. The height of all penetrations shall be in accordance with the Contract Documents. Contractor must verify the total combined thickness of the roof system and underlying substrate (insulating concrete fill system and rigid insulation, as applicable) plus the minimum curb height above the top of the roof membrane.
38. Contractor shall include all HVAC and similar related work items as may be referenced throughout the Contract Documents by typical notations, such as, "by Mechanical Contractor" "Contractor," "by General Contractor," "MC", "M", and similar, that may be noted throughout the entire set of Contract Documents.
39. If applicable, all components, equipment and work including installation shall fully comply with all current Codes (even if contrary to the Contract Documents and submittal approvals by the Mechanical Engineer). Contractor shall request specific written direction from the Construction Manager before proceeding with any work or ordering any materials that are non-compliant.
40. Contractor shall perform all specified labeling, stenciling, tagging and identification of all equipment, piping/ductwork systems, and devices which are included in this scope of work.
41. All equipment will be used during construction for acclimation of building. Contractor to provide necessary protections of equipment to use HVAC under construction conditions. Warranty for equipment to start at Substantial Completion.
42. Contractor to clean equipment coils prior to turnover to Owner.

PROJECT BUILDING INFORMATION MODELING (BIM) GUIDELINES

1. INTRODUCTION

1.1 A Building Information Model (BIM) will be developed by the Construction Manager and the Prime Contractors (Structural, Mechanical, Electrical, Plumbing and Fire Protection). The BIM

will integrate architectural, structural, mechanical, electrical, plumbing and fire protection systems and components into a virtual model to improve trade coordination, streamline the construction process, and accurately reflect final as-built conditions.

2. MODELING REQUIREMENTS

2.1 Each Prime Contractor shall produce a trade-specific 3-D model which contains solid 3-D geometry (not lines or wire frames) that represents the actual dimensions of the building elements that will be installed on the project.

2.2 The following trades are required to produce a 3-D model:

- Structural Steel
- Plumbing
- Fire Sprinkler
- Electrical
- HVAC

2.3 Roofing and Acoustical Ceiling Tile will have to provide information and coordinate with the trades listed above.

2.4 Building systems will be organized as separate models linked to a common elevation, origin and benchmark for efficient and accurate coordination purposes. Each floor shall be created as a separate level in the authoring software, and all trades shall reference a shared and documented insertion point and methodology for developing these files.

2.5 BIM Level of development (LOD) requirement.

LOD 400 per the AIA BIM Protocol (E202) will be required. Model detail shall include, but not limited to, all system fittings, equipment, valves, flanges, insulation, hangers, braces, maintenance access areas, and code-enforced clearance requirements. Structural elements such as foundations, pits, slabs, decks, beams, columns, connector plates, gusset plates and braces shall be modeled. Prime Contractors are encouraged to also include any and all objects that would facilitate the coordination with other applicable trades. A trade-specific LOD chart will be distributed by the Construction Manager at the beginning of the coordination process.

2.6 Layer names of model objects shall be logical, accurate and consistent throughout the BIM.

2.7 Two-dimensional shop drawings, submittal drawings, and as-built drawings shall be extracted from the Project BIM, formatted and submitted to the Design Team in compliance with the Contract Documents by each respective prime contractor.

3. TECHNOLOGY PLATFORM AND SOFTWARE

3.1 It is the responsibility of the Prime Contractor to have or obtain the proper hardware and software needed to successfully complete the BIM 3-D coordination process.

3.2 The choice of 3-D modeling software is open, but any software utilized must be able to export to a .DWG file format. Parametric modeling programs with direct. NWC/NWD export options are preferred.

3.3 Prime Contractors are encouraged to have Navisworks Manage to conduct in-house clash detection and coordination prior to coordination meetings.

4. QUALIFICATIONS OF BIM PERSONNEL

4.1 It is the responsibility of the Prime Contractor to have or obtain trained personnel to successfully participate in the BIM 3-D modeling and coordination process. Personnel participating in the modeling and coordination efforts must be proficient in the use of all hardware and software

required and must have field application/installation knowledge and experience necessary to make coordination decisions for their scope of work.

4.2 The Prime Contractor assigned personnel will be required to have access to an email account and the internet for file sharing and participation in web-based coordination meetings.

5. PARTICIPATION REQUIREMENTS

5.1 Each Prime Contractor is required to actively participate in on-site and web-based BIM coordination meetings. Coordination meetings must be attended by each Prime Contractor's Qualified BIM Personnel throughout the duration of the project, the majority of which will be web-based. Field personnel are also encouraged to attend these coordination meetings for constructability input.

5.2 The purpose of the BIM coordination meetings will be to identify, track and document interferences and clashes between the trades that require Construction Manager's facilitation and/or changes in contract document design. Prime Contractors shall conduct proactive model review and clash detection and coordination with other trades between meetings and arrive to meetings prepared with a list of unresolvable items to discuss.

5.3 Coordination software will be utilized to assemble the various models and provide a report of coordination and/or design issues, usually within 24 hours of the meeting. The report will be reviewed by the team members and agreed upon solutions shall be implemented into the 3-D models in a timely fashion by the respective trade. Implementation includes re-modeling, re-analyzing, and re-distributing the updated BIM. This process will be repeated until all coordination issues are resolved.

5.4 A detailed coordination schedule will be developed and distributed by the Construction Manager at the beginning of the BIM coordination process.

6. BIM WORK PLAN

6.1 At the commencement of the BIM coordination process, a BIM Work Plan will be issued by the Construction Manager which will include:

a. Project sequence and schedule for initial delivery of each model

b. Schedule for updating of each model and preservation of versions of each model

c. File formats used for project submittal and file exchange

d. Compliance with Folder Structure, File Naming, Object naming conventions

e. Utilization of Web Site and FTP Sites

f. Trade-specific LOD requirements

g. Model origin (common 0,0,0 location)

h. Coordination report format

i. Model sign-off procedure

j. Field validation

k. As-built model creation

l. Final BIM deliverable

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. None.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. N/A.

END OF SECTION

BID PACKAGE 06
ELECTRICAL AND LOW VOLTAGE

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	Description
08 17 13	Integrated Door Assemblies
08 31 16	Access Panels
08 42 43	ICU-CCU Entrances
08 71 13	Automatic Door Operators
26 05 10	Selective Electrical Demolition
26 05 19	Low-Voltage Electrical Power Conductors and Cables
26 05 26	Grounding And Bonding for Electrical Systems
26 05 29	Hangers And Supports for Electrical Systems
26 05 33	Raceway And Boxes for Electrical Systems
26 05 53	Identification For Electrical Systems
26 05 73	Overcurrent Protective Device Coordination Study
26 09 23	Lighting Control Devices
26 22 00	Low-Voltage Transformers
26 24 16	Panelboards
26 27 26	Wiring Devices
26 28 13	Fuses
26 28 16	Enclosed Switches and Circuit Breakers
26 43 13	Surge Protective Devices for Low-Voltage Electrical Power Circuits
26 51 00	Interior Lighting
27 05 00	Common Work Results for Communications
27 05 26	Grounding And Bonding for Communications Systems
27 05 28	Pathways For Communications Systems

27 11 00	Communications Equipment Room Fittings
27 15 00	Communications Horizontal Cabling
27 52 23	Nurse Call/Code Blue Systems
28 05 00	Common Work Results for Electronic Safety and Security
28 05 13	Conductors And Cables for Electronic Safety and Security
28 05 28	Pathways For Electronic Safety and Security
28 13 00	Access Control
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. Electrical

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor will provide all necessary Safe Off.
2. Scope to include Nurse Call, Access Controls, Security, Fire Alarm and Telecom.
3. Provide, install and maintain temporary power for construction. Provide spider boxes and sufficient number of power distribution cords for construction of the site work. Provide and install temporary power as required with not less than 100 amp at 120/208 volt, 3 phase, 4 wire plus ground. Coordinate location of power poles to be in landscape area, avoiding hardscape locations. Coordinate location of panels and power spider boxes with the Construction Manager. Provide duplex outlets with weatherproof GFI protected 20 amp grounded outlets at 1- duplex per 500 square feet. Outlets grouped in clusters of no more than six. Outlets must be accessible to all areas and cords no longer than 50'. Provide temporary lighting throughout building. Temporary lighting needs to be on separate circuit from temporary power. Monthly electrical bill will be paid by Owner. Contractor shall provide and install site temporary lighting on temporary power poles and additional temporary light poles as required to light up the site at night. Contractor shall remove temporary power and poles as directed by Construction Manager once temporary power is not needed.
4. Contractor shall furnish and install all electrical work/devices/terminations (conduits, wiring, conductors, raceways, wiremold, outlet and junction boxes, pull boxes, vaults, wiring devices, switches, disconnects, distribution boards, etc.) within the building and site, including, but not limited to, electrical power, lighting (normal and emergency), support and seismic systems, design-build fire alarm systems, site feeder/signal services, Theatrical lighting systems, lighting control, exit signs, as required by the Contract Documents.
5. Contractor shall furnish and install all electrical services, conduit systems and connections for low voltage systems that may be furnished and installed by others. Reference the contract documents for requirements and scope responsibilities. Include connections of line voltage wiring to each equipment item and control device as required and include pull strings for an operational system.
6. Contractor shall provide all required equipment to off load, lift, rig, and install all electrical equipment as noted in the Contract Documents.
7. Contractor shall ensure that all electrical distribution including but not limited to, breakers, disconnects, switchboards, panel boards, and Motor Control Centers have a code (National,

State and Local) compliant lockout tag-out capability. Contractors responsible for lockout/Tag out of panels during construction.

8. Contractor shall furnish and install all pull/splice boxes, transformer pad, frames, covers, grounding devices, and all other accessories required by the Contract Documents.
9. Contractor shall include all coring and saw cutting and patching required for Contractors Work. Contractor shall notify the Construction Manager and Owner prior to any saw cutting and/or coring.
10. Contractor shall furnish and install all electrical grounding systems as required for systems and services as shown and/or specified. Additionally, Contractor shall fully coordinate the primary grounding system with all other Contractors.
11. Contractor shall furnish and install all racks, panel supports, mounts, and all other types of supports required for all electrical/signal/communication/data/CCTV and similar systems, which are shown and required by the Contract Documents. Rack systems shall include necessary seismic restraints.
12. Contractor shall furnish and install all plywood back boards in electrical and data rooms.
13. Contractor shall participate in trade coordination meetings, preparation of coordination and shop drawings, and the coordination of installations with products and materials provided by other crafts. These coordination drawings shall include areas where limited space availability necessitates maximum utilization of space for the efficient installation of different components and the identification of any areas of potential conflict.
14. Contractor shall furnish and install all electrical line voltage rough in, interconnects and final connections to new HVAC equipment items as per the Contract Documents. Contractor shall coordinate all line voltage work with HVAC Bid Package.
15. Contractor shall furnish and install all electrical/data/control rough-in and final connections to equipment items/work which may be furnished by others, unless otherwise noted, such as but not limited to: projection screens/projectors, drinking fountains, flush valves, kitchen equipment, gas/solenoid valve(s), fire suppression system, condensate pump(s), electrical items that are within casework and millwork elements, HVAC and Plumbing power requirements to new or relocated units as required by the Contract Documents, code requirements, and specific requirements by the equipment manufacturer. Reference the specific equipment specifications for requirements in other sections of the Contract Documents.
16. Contractor shall furnish and install all necessary conduit, wiring, and connections required for the fire sprinkler tamper switches, bells and supervisory systems. Coordinate this work with Fire Sprinkler System.
17. Contractor shall furnish and install power (line/low voltage as applicable), power supplies, signal control, transformers, circuiting, wiring, and all connections to electrified door hardware and related components that are listed in the finish hardware specification section and/or as otherwise required by the Contract Documents. Coordinate all rough-in locations with the hollow metal and finish hardware suppliers.
18. Contractor shall furnish and install all interior and exterior lighting and power, site pole lighting, custom lighting, signage, security cameras, conduits, and circuiting as noted in the Contract Documents. Light pole bases shall be furnished with anchorage bolts accompanied with a bolt template attached for each location. Contractor shall coordinate the locations and placement requirements for anchor bolts and templates with the Bid Package for Concrete, Rebar and Grading. Contractor shall coordinate grout under light pole base plates as required. Contractor to grout under each light pole.
19. Contractor shall furnish and install wood nailers for electrical supports and curbs.
20. Contractor shall furnish and install all electrically illuminated and/or self-illuminated exit signage and "low level" exit signage as required by the Contract Documents.
21. Contractor shall furnish and install a complete fire alarm system and fire alarm system with emergency voice/alarm communication per the Contract Documents. Contractor shall coordinate, interface, and incorporate all HVAC mechanical units shut down requirements into the fire alarm design with the Mechanical Contractor. The fire alarm design shall

comply with all National, State, and local codes and shall be the Contractors responsibility to submit for review, approval, and permit with all Authorities Having Jurisdiction. The fire alarm points of connection to equipment provided by other trades will be no more than 12" away from the point of connection.

22. Contractor shall furnish and install pitch pans/ roof jacks for all conduit penetrations on the roof. Contractor shall coordinate all roof penetrations with the appropriate prime trade for locations of penetrations to their equipment. Roof penetrations shall not interfere with the operation or servicing of equipment, i.e., conduit shall not be located in front of equipment access doors.
23. Contractor shall provide and install any necessary sleeves, block-outs or coring necessary to complete work.
24. Contractor shall include all fire-rated caulking and packing materials required to encase conduits/sleeves at points of penetration through fire-rated and smoke-rated construction. Include all hangers, supports, angles, sleeves, access doors required for a complete installation.
25. Contractor shall validate all electrical/communication/data/control system installations based on the Contract Documents.
26. Contractor shall properly coordinate the locations and spatial/dimensional requirements (including specific dimensions shown on the plans) of all Contractors' work, items with all other trade work items so that conflicts are avoided. Contractor shall verify that all work items will fit within the designed wall cavities, ceiling spaces, and furred areas before any affected building elements are constructed, e.g., foundations, slab on grade and elevated decks.
27. Contractor shall furnish and install all necessary angles, clamps, hangers, channels, unistrut, supports, wires, cables, threaded rod, miscellaneous steel, isolation devices, seismic anchorage, slack wires, and backing for Contractor's work. All work shall comply with applicable Codes and Contract Document requirements.
28. Contractor has reviewed all of the Contract Documents and acknowledges that each specific prime contractor is responsible to furnish and install each of the specified/shown components, conduit systems, equipment items, and low/line voltage wiring are clearly defined between the Divisions 21, 22, 23, 26, 27 and 28 so that all items required by the Contract Documents are furnished and installed.
29. Contractor to wire all fire sprinkler valve supervisory devices and water flow switches.
30. Contractor shall fully coordinate with the mechanical, fire sprinkler and fire alarm Contractors with regards to the smoke/fire dampers and duct/mechanical equipment smoke detection systems, including locations of detection devices and installation of LED indicators denoting locations of dampers (as applicable).
31. Contractor shall protect the roofing membrane and/or waterproof deck coating systems with temporary plywood protection during the installation of the electrical work in such areas, as required.
32. Contractor shall furnish and install sleepers sitting on walk pad material (or other types of proper support) if applicable, under conduits and similar items that run horizontally on the roof membrane. This type of support shall be installed in the absence of a specific detail.
33. Contractor shall ensure that the locations, configuration, sizes, and height of roof penetrations shall be fully compatible with the type of roof system and manufacturer's warranty. Bid Package 8, Roofing and Sheet Metal shall approve all such items prior to installation. The design, proper sequence, and installation of jacks/flashings shall be coordinated with the installation of the roofing system. The height of all penetrations shall be a minimum of 8" above the highest point of the finished roof surface.
34. Contractor shall install pull ropes in all spare or empty conduits and conduit systems that are installed under this scope of work to be used by other bid packages.
35. Contractor shall include the furnishing and installation of all electrical and similar related work items as may be referenced throughout the Contract Documents by typical notations,

such as, “by Electrical Contractor”, “by Contractor”, “by General Contractor”, "E", “Fire Alarm Contractor” and similar that may be noted on the Contract Documents.

36. Contractor shall ensure that all fixtures, equipment and work, including installation, shall fully comply with current Codes (even if contrary to the Contract Documents and submittal approvals by the Engineer). Contractor shall request specific written direction from Construction Manager before proceeding with any work that is non-compliant.
37. Contractor shall furnish and coordinate all electrical fixture/equipment templates for cutouts in cabinetry and all other building components, as applicable.
38. All light fixture lenses shall be protected by plastic wrapping during the construction period, and plastic wrapping shall be removed at the completion of the project or as directed by Contractor. Contractor shall also perform the final cleaning of all equipment, light fixtures, and fixture lenses at a time directed by Construction Manager.
39. Contractor shall perform all specified labeling, stenciling, tagging, and identification of all equipment, panels, conduit systems, devices, and fixtures, which are included in this scope of work, prior to fire alarm testing.
40. Contractor shall provide and install all power supplies, raceways and back boxes only for audio/visual, communications, voice/data systems, network systems, video surveillance, access control and intrusion detection systems.
41. Contractor to provide all nodes shown and or necessary but not shown for a complete access control system. Contractor to coordinate with door contractor for access control related requirements.
42. Contractor shall furnish and install all access doors that are required for electrical equipment, components, and systems. The proper type and finish of architectural access doors shall be in accordance with the provisions of the Contract Documents and Building Code. Contractor shall coordinate all opening sizes with the respective bid packages, e.g., framing and acoustic ceiling. Installation of access doors shall be by this Contractor.
43. Contractor shall furnish and install grounding of static dissipative flooring.
44. Provide and install power connections to irrigation controllers. Include conduit and wire. Provide raceway for low voltage connection.
45. Provide Coordination study as required.
46. Contractor to install all Owner Furnished Equipment that ties into contractor’s work.
47. Contractor shall design, furnish and install all anchorage for equipment over 400 lbs.

PROJECT BUILDING INFORMATION MODELING (BIM) GUIDELINES

1. INTRODUCTION

1.1 A Building Information Model (BIM) will be developed by the Construction Manager and the Prime Contractors (Structural, Mechanical, Electrical, Plumbing and Fire Protection). The BIM will integrate architectural, structural, mechanical, electrical, plumbing and fire protection systems and components into a virtual model to improve trade coordination, streamline the construction process, and accurately reflect final as-built conditions.

2. MODELING REQUIREMENTS

2.1 Each Prime Contractor shall produce a trade-specific 3-D model which contains solid 3-D geometry (not lines or wire frames) that represents the actual dimensions of the building elements that will be installed on the project.

2.2 The following trades are required to produce a 3-D model:

- Structural Steel
- Plumbing
- Fire Sprinkler
- Electrical

- HVAC

2.3 Roofing and Acoustical Ceiling Tile will have to provide information and coordinate with the trades listed above.

2.4 Building systems will be organized as separate models linked to a common elevation, origin and benchmark for efficient and accurate coordination purposes. Each floor shall be created as a separate level in the authoring software, and all trades shall reference a shared and documented insertion point and methodology for developing these files.

2.5 BIM Level of development (LOD) requirement.

LOD 400 per the AIA BIM Protocol (E202) will be required. Model detail shall include, but not limited to, all system fittings, equipment, valves, flanges, insulation, hangers, braces, maintenance access areas, and code-enforced clearance requirements. Structural elements such as foundations, pits, slabs, decks, beams, columns, connector plates, gusset plates and braces shall be modeled. Prime Contractors are encouraged to also include any and all objects that would facilitate the coordination with other applicable trades. A trade-specific LOD chart will be distributed by the Construction Manager at the beginning of the coordination process.

2.6 Layer names of model objects shall be logical, accurate and consistent throughout the BIM.

2.7 Two-dimensional shop drawings, submittal drawings, and as-built drawings shall be extracted from the Project BIM, formatted and submitted to the Design Team in compliance with the Contract Documents by each respective prime contractor.

3. TECHNOLOGY PLATFORM AND SOFTWARE

3.1 It is the responsibility of the Prime Contractor to have or obtain the proper hardware and software needed to successfully complete the BIM 3-D coordination process.

3.2 The choice of 3-D modeling software is open, but any software utilized must be able to export to a .DWG file format. Parametric modeling programs with direct .NWC/.NWD export options are preferred.

3.3 Prime Contractors are encouraged to have Navisworks Manage to conduct in-house clash detection and coordination prior to coordination meetings.

4. QUALIFICATIONS OF BIM PERSONNEL

4.1 It is the responsibility of the Prime Contractor to have or obtain trained personnel to successfully participate in the BIM 3-D modeling and coordination process. Personnel participating in the modeling and coordination efforts must be proficient in the use of all hardware and software required and must have field application/installation knowledge and experience necessary to make coordination decisions for their scope of work.

4.2 The Prime Contractor assigned personnel will be required to have access to an email account and the internet for file sharing and participation in web-based coordination meetings.

5. PARTICIPATION REQUIREMENTS

5.1 Each Prime Contractor is required to actively participate in on-site and web-based BIM coordination meetings. Coordination meetings must be attended by each Prime Contractor's Qualified BIM Personnel throughout the duration of the project, the majority of which will be web-based. Field personnel are also encouraged to attend these coordination meetings for constructability input.

5.2 The purpose of the BIM coordination meetings will be to identify, track and document interferences and clashes between the trades that require Construction Manager's facilitation and/or changes in contract document design. Prime Contractors shall conduct proactive model review and clash detection and coordination with other trades between meetings and arrive to meetings prepared with a list of unresolvable items to discuss.

5.3 Coordination software will be utilized to assemble the various models and provide a report of coordination and/or design issues, usually within 24 hours of the meeting. The report will be reviewed by the team members and agreed upon solutions shall be implemented into the 3-D models in a timely fashion by the respective trade. Implementation includes re-modeling, re-analyzing, and re-distributing the updated BIM. This process will be repeated until all coordination issues are resolved.

5.4 A detailed coordination schedule will be developed and distributed by the Construction Manager at the beginning of the BIM coordination process.

6. BIM WORK PLAN

6.1 At the commencement of the BIM coordination process, a BIM Work Plan will be issued by the Construction Manager which will include:

a. Project sequence and schedule for initial delivery of each model

b. Schedule for updating of each model and preservation of versions of each model

c. File formats used for project submittal and file exchange

d. Compliance with Folder Structure, File Naming, Object naming conventions

e. Utilization of Web Site and FTP Sites

f. Trade-specific LOD requirements

g. Model origin (common 0,0,0 location)

h. Coordination report format

i. Model sign-off procedure

j. Field validation

k. As-built model creation

l. Final BIM deliverable

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. None.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit Material Safety Data Sheets (MSDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of MSDS, instructions regarding MSDS and maintaining all stored materials on site in strict accordance with MSDS and other governing codes and regulations.
G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. N/A

END OF SECTION

BID PACKAGE 17
Owner Furnished Contractor Installed Equipment

1.01 SECTION INCLUDES

1.02 Work covered by Contract Documents
1.03 Related work by others under separate bid packages
1.04 Contractors use of premises
1.05 Contractors duties
1.06 Alternates
1.07 Allowances

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

Specification Section	**Description**
06 10 53	Miscellaneous Rough Carpentry
10 11 16	Markerboards
10 26 00	Wall And Door Protection
10 28 13	Toilet Accessories
10 44 00	Fire Protection Specialties
10 51 13	Metal Lockers
12 24 13	Roller Window Shades
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

* As applicable to work within this Bid Package.

B. Product Delivery, Storage, And Handling:
1. Receive, store and handle products in accordance with the manufacturer's instructions.
2. Protect equipment items as required to Prevent damage during storage and construction

C. Installer Contractor's Responsibilities
1. Verify mounting and utility requirements for Owner-furnished materials and equipment items.
   a. Coordinate and utility rough in for all items where required.
   b. Rough in locations, sizes, capacities, and similar type items shall be as indicated and required by product manufacturer.

c.

D. Owner and Installer Contractor(s) Responsibilities:

1. Owner-Furnished/Contractor Installed ("OFCI"): Furnished by the Owner; installed by the Installer Contractor.
   a. Owner and Installer Contractor(s) will coordinate deliveries of materials and equipment to coincide with the construction schedule.
   b. Owner will furnish specified materials and equipment delivered to the site. Owner/vendor's representative shall be present on site at the time of delivery to comply with the contract requirements and Specifications.
   c. The Owner furnishing specified materials and equipment is responsible to provide manufacturer guarantees as required by the Contract to the Installer Contractor.
2. The Installer Contractor shall:
   a. Review, verify and accept the approved manufacturer's Submittal/Shop Drawings for all materials and equipment required to be installed by the Installer Contractor and furnished by the Owner. Any discrepancies, including but not limited to possible space conflicts, should be brought to the attention of the Project Manager and/or Program Manager, if applicable.
   b. Coordinate timely delivery. Installer Contractor shall receive materials and equipment at Site when delivered and give written receipt at time of delivery, noting visible defects or omissions; if such declaration is not given, the Installer Contractor shall assume responsibility for such defects and omissions.
   c. Store materials and equipment until ready for installation and protect from loss and damage. Installer Contractor is responsible for providing adequate storage space.
   d. Coordinate with other bid package contractors and field measurement to ensure complete installation.
   e. Uncrate, assemble, and set in place.
   f. Provide adequate supports.
   g. Install materials and recommendations, instructions, and Shop Drawings, supply labor and material required, and make mechanical, plumbing, and electrical connections required to operate equipment.
   h. Be certified by equipment manufacturer for installation of the specific equipment supplied by the Owner.
   i. Provide anchorage and/or bracing as required for seismic restraint per Title 24, UBC Standard 27-11 and all other applicable codes.
   j. Provide the contract-required warranty and guarantee for all work, materials, equipment, and installation upon its completion and acceptance by the Owner. Guarantee includes all costs associated with the removal, shipping to and from the Site, and re-installation of any equipment found to be defective.
3. Manufacturer's printed descriptions, specifications, and instructions shall govern the Work unless specifically indicated or specified otherwise.
4. Upon completion of installation, clean equipment items in accordance with manufacturer's recommendations, and protect from damage until final acceptance of the Work by the Owner.

E.

1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES

A. The following specific work items listed below will be provided by others:

1. None.

1.04 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.

B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
C. Assume full responsibility for the protection and safekeeping of products under this Contract.
D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
E. All signs and services required by AQMD for grading and/or site demolition operations.
F. Coordinate the use of premises under the direction of the Construction Manager.

1.05 CONTRACTOR'S DUTIES

A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
F. Contractor must provide and submit afety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

1.06 ALTERNATES

A. Items noted as alternates shall govern only if specifically included within the Agreement.

1.07 ALLOWANCES

A. N/A at this time.

END OF SECTION

RIVERSIDE UNIVERSITY HEALTH SYSTEM

(PROJECT NO. MC08430011869, HCAi NO. S231455-33-00)

CATHETERIZATION LABORATORY SUITE

COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

Appendix C Logistics

Notes
First and Last Parking Spaces to be blocked off near lay down area.
Contractors to park in designated area.
If no spaces is available, contractors to park in available spaces around parking lots.



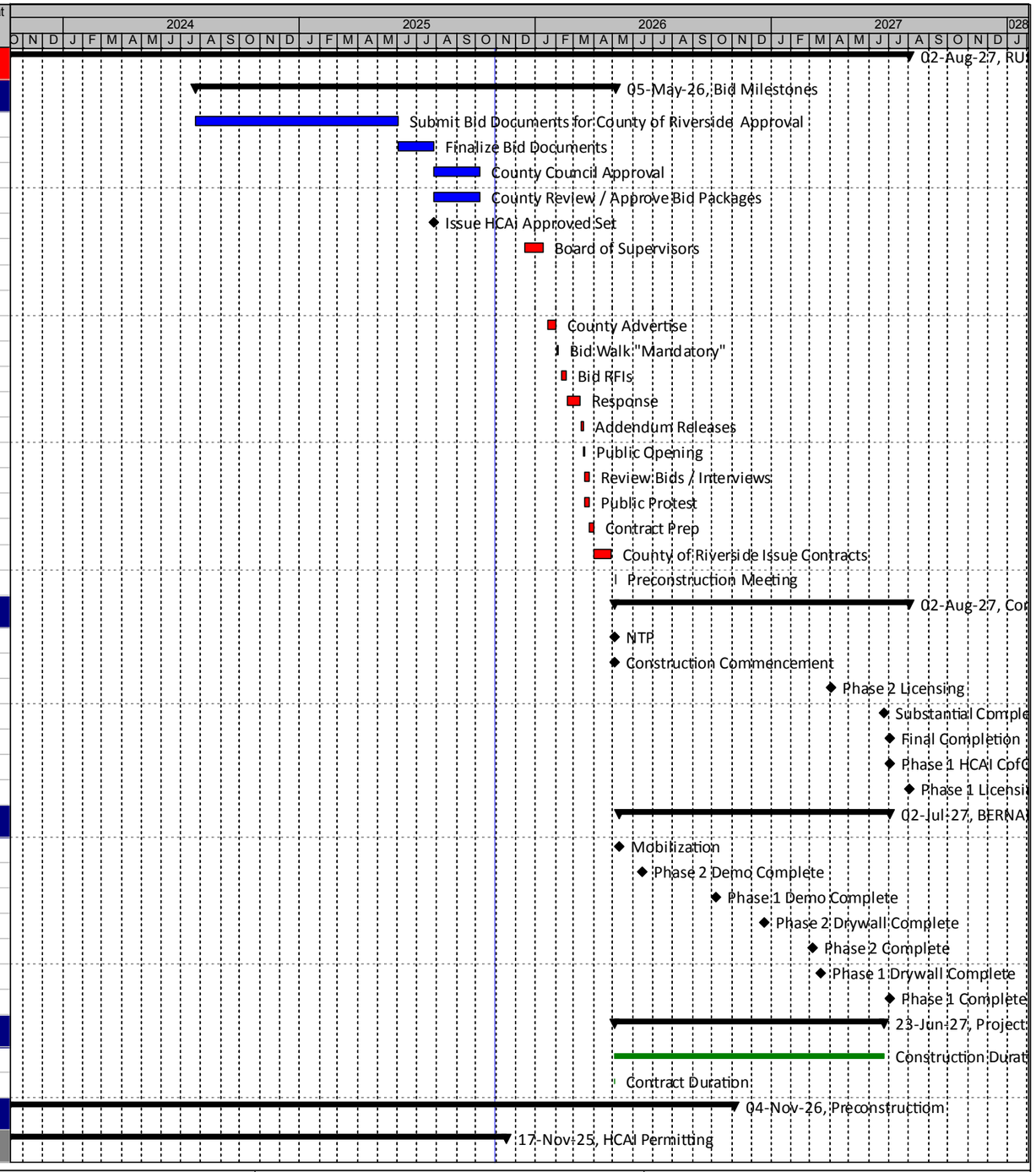
RIVERSIDE UNIVERSITY HEALTH SYSTEM

(PROJECT NO. MC08430011869, HCAi NO. S231455-33-00)

CATHETERIZATION LABORATORY SUITE

COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
APPENDIX C Schedule

Activity ID	Activity Name	OD	Start	Finish	Total Float
RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What I		783	10-Oct-23 A	02-Aug-27	
EBid Milestones		459	24-Jul-24 A	05-May-26	
BID-0-0100	Submit Bid Documents for County of Riverside Approval	18	24-Jul-24 A	02-Jun-25 A	
BID-0-0110	Finalize Bid Documents	9	03-Jun-25 A	28-Jul-25 A	
BID-0-0230	County Council Approval	5	28-Jul-25 A	07-Oct-25	
BID-0-0260	County Review / Approve Bid Packages	10	28-Jul-25 A	07-Oct-25	
BID-0-0120	Issue HCAi Approved Set	0		28-Jul-25 A	
BID-0-0250	Board of Supervisors	19	07-Jan-26	27-Jan-26	
BID-0-0140					
BID-0-0290					
BID-0-0270	County Advertise	10	02-Feb-26	13-Feb-26	
BID-0-0150	Bid Walk "Mandatory"	3	17-Feb-26	19-Feb-26	
BID-0-0170	Bid RFIs	6	25-Feb-26	04-Mar-26	
BID-0-0180	Response	15	05-Mar-26	25-Mar-26	
BID-0-0280	Addendum Releases	3	26-Mar-26	30-Mar-26	
BID-0-0220	Public Opening	1	02-Apr-26	02-Apr-26	
BID-0-0190	Review Bids / Interviews	5	03-Apr-26	09-Apr-26	
BID-0-0240	Public Protest	5	03-Apr-26	09-Apr-26	
BID-0-0300	Contract Pre	5	09-Apr-26	15-Apr-26	
BID-0-0200	County of Riverside Issue Contracts	19	16-Apr-26	12-May-26	
BID-0-0210	Preconstruction Meeting	1	19-May-26	19-May-26	
Contract Milestones			18-May-26	02-Aug-27	
CM-CS-0001	NTP	0	18-May-26		
CM-CS-0002	Construction Commencement	0	18-May-26		
CM-CS-0026	Phase 2 Licensing	0		16-Apr-27	
CM-CS-0005	Substantial Completion / C of O (Work Days)	0		23-Jun-27	
CM-CS-0006	Final Completion	0		02-Jul-27	
CM-CS-0036	Phase 1 HCAI CofO	0		02-Jul-27	
CM-CS-0016	Phase 1 Licensing	0		02-Aug-27	
BERNARDS KEY MILESTONES					
BER-1010	Mobilization	0		26-May-26	
BER-1050	Phase 2 Demo Complete	0		15-Jun-26	
BER-1020	Phase 1 Demo Complete	0		07-Oct-26	
BER-1060	Phase 2 Drywall Complete	0		21-Dec-26	
BER-1070	Phase 2 Complete	0		05-Mar-27	
BER-1030	Phase 1 Drywall Complete	0		17-Mar-27	
BER-1040	Phase 1 Complete	0		02-Jul-27	
FProject Duration			18-May-26	23-Jun-27	
MS-0150	Construction Duration	402	18-May-26	23-Jun-27	
MS-0160	Contract Duration	0	18-May-26	18-May-26	
Preconstructiom		569	10-Oct-23 A	04-Nov-26	193
HCAI Permitting		139	10-Oct-23 A	17-Nov-25	0



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

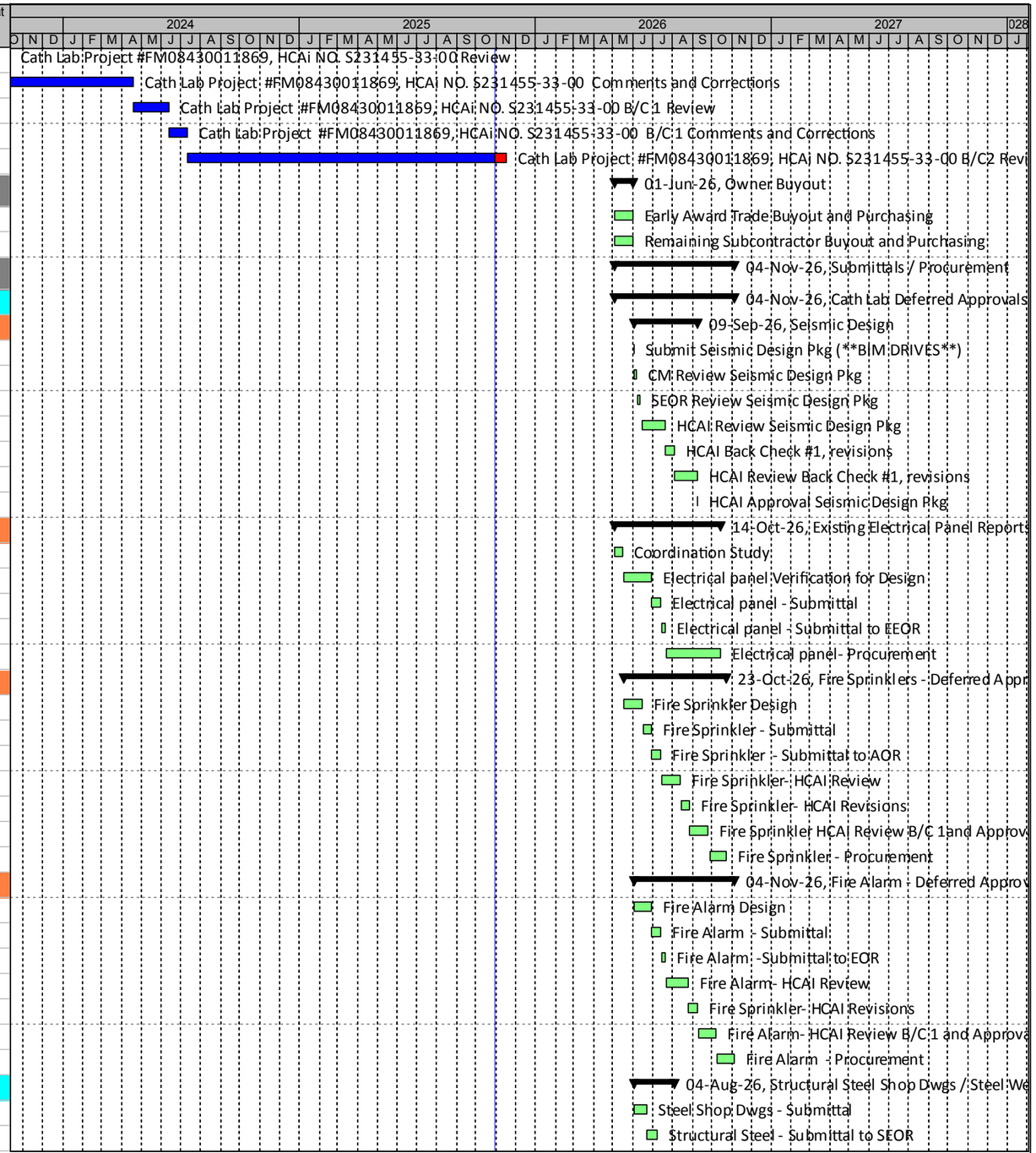
RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What If - "Updated"

Proposal Schedule

Riverside University HEALTH SYSTEM

BERNARDS

Activity ID	Activity Name	OD	Start	Finish	Total Float
A1030	Cath Lab Project #FM08430011869, HCAi NO. S231455-33-00 Review	1	10-Oct-23 A	10-Oct-23	
A1040	Cath Lab Project #FM08430011869, HCAi NO. S231455-33-00 Comm	138	10-Oct-23 A	19-Apr-24	
A1050	Cath Lab Project #FM08430011869, HCAi NO. S231455-33-00 B/C 1 R	40	19-Apr-24	14-Jun-24 A	
A1060	Cath Lab Project #FM08430011869, HCAi NO. S231455-33-00 B/C 1 C	20	14-Jun-24 A	12-Jul-24 A	
A1070	Cath Lab Project #FM08430011869, HCAi NO. S231455-33-00 B/C2 Re	22	12-Jul-24 A	17-Nov-25	0
Owner Buyout		20	04-May-26	01-Jun-26	75
A1090	Early Award Trade Buyout and Purchasing	20	04-May-26	01-Jun-26	35
A1100	Remaining Subcontractor Buyout and Purchasing	20	04-May-26	01-Jun-26	75
Submittals / Procurement		133	04-May-26	04-Nov-26	141
Cath Lab Deferred Approvals		133	04-May-26	04-Nov-26	120
Seismic Design		70	02-Jun-26	09-Sep-26	87
SUB-21	Submit Seismic Design Pkg (**BIM DRIVES**)	1	02-Jun-26	02-Jun-26	87
SUB-22	CM Review Seismic Design Pkg	3	03-Jun-26	05-Jun-26	87
SUB-23	SEOR Review Seismic Design Pkg	5	08-Jun-26	12-Jun-26	87
SUB-24	HCAI Review Seismic Design Pkg	25	15-Jun-26	20-Jul-26	87
SUB-25	HCAI Back Check #1, revisions	10	21-Jul-26	03-Aug-26	87
SUB-26	HCAI Review Back Check #1, revisions	25	04-Aug-26	08-Sep-26	87
SUB-27	HCAI Approval Seismic Design Pkg	1	09-Sep-26	09-Sep-26	87
Existing Electrical Panel Reports for Pin 70 Compliance		118	04-May-26	14-Oct-26	135
SUB-135	Coordination Study	10	04-May-26	15-May-26	132
SUB-75	Electrical panel Verification for Design	30	18-May-26	29-Jun-26	129
SUB-89	Electrical panel - Submittal	10	30-Jun-26	14-Jul-26	129
SUB-91	Electrical panel - Submittal to EEOR	5	15-Jul-26	21-Jul-26	129
SUB-90	Electrical panel- Procurement	60	22-Jul-26	14-Oct-26	129
Fire Sprinklers - Deferred Approval		112	18-May-26	23-Oct-26	35
SUB-74	Fire Sprinkler Design	20	18-May-26	15-Jun-26	35
SUB-86	Fire Sprinkler - Submittal	10	16-Jun-26	29-Jun-26	35
SUB-88	Fire Sprinkler - Submittal to AOR	10	30-Jun-26	14-Jul-26	35
SUB-218	Fire Sprinkler- HCAI Review	22	15-Jul-26	13-Aug-26	35
SUB-228	Fire Sprinkler- HCAI Revisions	10	14-Aug-26	27-Aug-26	35
SUB-238	Fire Sprinkler HCAI Review B/C 1and Approvals	20	28-Aug-26	25-Sep-26	35
SUB-87	Fire Sprinkler - Procurement	20	28-Sep-26	23-Oct-26	35
Fire Alarm - Deferred Approval		110	02-Jun-26	04-Nov-26	51
SUB-73	Fire Alarm Design	20	02-Jun-26	29-Jun-26	51
SUB-83	Fire Alarm - Submittal	10	30-Jun-26	14-Jul-26	51
SUB-85	Fire Alarm -Submittal to EOR	5	15-Jul-26	21-Jul-26	51
SUB-225	Fire Alarm- HCAI Review	25	22-Jul-26	25-Aug-26	51
SUB-235	Fire Sprinkler- HCAI Revisions	10	26-Aug-26	09-Sep-26	51
SUB-245	Fire Alarm- HCAI Review B/C 1 and Approvals	20	10-Sep-26	07-Oct-26	51
SUB-84	Fire Alarm - Procurement	20	08-Oct-26	04-Nov-26	51
Structural Steel Shop Dwgs / Steel Welding Procedure		45	02-Jun-26	04-Aug-26	35
SUB-1	Steel Shop Dwgs - Submittal	15	02-Jun-26	22-Jun-26	35
SUB-4	Structural Steel - Submittal to SEOR	10	23-Jun-26	07-Jul-26	35



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What If - "Updated"

Proposal Schedule

Riverside University HEALTH SYSTEM

BERNARDS

Activity ID	Activity Name	OD	Start	Finish	Total Float
SUB-2	Structural Steel - Fabrication/Procurement	15	08-Jul-26	28-Jul-26	35
SUB-3	Structural Steel - coordinate on-site delivery	5	29-Jul-26	04-Aug-26	35
Cath Lab Submittal / Approvals / Procurement		112	02-Jun-26	04-Nov-26	141
Foundation / Mechanical Pad - Rebar Shop Dwgs		35	02-Jun-26	21-Jul-26	148
SUB-63	Foundation / SOG - Rebar - Submittal	10	02-Jun-26	15-Jun-26	148
SUB-66	Foundation / SOG - Rebar - Submittal to SEOR	10	16-Jun-26	29-Jun-26	148
SUB-64	Foundation / SOG -Rebar - Procurement	10	30-Jun-26	14-Jul-26	148
SUB-65	Foundation / SOG - Rebar - coordinate on-site delivery	5	15-Jul-26	21-Jul-26	148
Concrete Mix Design (HCAI Approval)		25	02-Jun-26	07-Jul-26	158
SUB-57	Concrete Mix Design - Submittal	10	02-Jun-26	15-Jun-26	158
SUB-147	Concrete Mix Design - SEOR review	5	16-Jun-26	22-Jun-26	158
SUB-58	Concrete Mix Design - HCAI review	10	23-Jun-26	07-Jul-26	158
Spray On Fireproofing (SOFP)		35	02-Jun-26	21-Jul-26	122
SUB-45	Spray On Fireproofing - Submittal	10	02-Jun-26	15-Jun-26	122
SUB-48	Spray On Fireproofing - Submittal to AOR	10	16-Jun-26	29-Jun-26	122
SUB-49	Spray On Fireproofing - Submittal to HCAI	5	30-Jun-26	07-Jul-26	122
SUB-46	Spray On Fireproofing - Procurement	5	08-Jul-26	14-Jul-26	122
SUB-47	Spray On Fireproofing - coordinate on-site delivery	5	15-Jul-26	21-Jul-26	122
Drywall and Framing		35	02-Jun-26	21-Jul-26	75
SUB-100	Drywall and Framing- Submittal	10	02-Jun-26	15-Jun-26	75
SUB-101	Drywall and Framing -Submittal to AOR	10	16-Jun-26	29-Jun-26	75
SUB-102	Drywall and Framing - Procurement	10	30-Jun-26	14-Jul-26	75
SUB-103	Drywall and Framing - coordinate on-site delivery	5	15-Jul-26	21-Jul-26	75
Door and Frames		75	02-Jun-26	16-Sep-26	98
SUB-54	Doors/Frames - Submittal	20	02-Jun-26	29-Jun-26	98
SUB-56	Doors/Frames - Submittal to AOR	10	30-Jun-26	14-Jul-26	98
SUB-55	Doors/Frames - Procurement	40	15-Jul-26	09-Sep-26	98
SUB-129	Doors/Frames- coordinate on-site delivery	5	10-Sep-26	16-Sep-26	98
Door Hardware		50	02-Jun-26	11-Aug-26	195
SUB-70	Doors Hardware - Submittal	25	02-Jun-26	07-Jul-26	195
SUB-72	Doors Hardware - Submittal to AOR	10	08-Jul-26	21-Jul-26	195
SUB-71	Doors Hardware - Procurement	10	22-Jul-26	04-Aug-26	195
SUB-130	Doors hardware - coordinate on-site delivery	5	05-Aug-26	11-Aug-26	195
Glazing		60	02-Jun-26	25-Aug-26	169
SUB-92	Glazing - Submittal	10	02-Jun-26	15-Jun-26	169
SUB-93	Glazing -Submittal to AOR	10	16-Jun-26	29-Jun-26	169
SUB-94	Glazing - Procurement	30	30-Jun-26	11-Aug-26	169
SUB-95	Glazing - coordinate on-site delivery	10	12-Aug-26	25-Aug-26	169
Casework		100	02-Jun-26	21-Oct-26	136
SUB-50	Casework - Submittal	30	02-Jun-26	14-Jul-26	136
SUB-53	Casework - Submittal to AOR	10	15-Jul-26	28-Jul-26	136
SUB-51	Casework - Procurement	60	29-Jul-26	21-Oct-26	136
SUB-52	Casework - coordinate on-site delivery	5	15-Oct-26	21-Oct-26	136
Flooring		35	02-Jun-26	21-Jul-26	206



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What If - "Updated"

Proposal Schedule

Riverside University HEALTH SYSTEM

BERNARDS

Activity ID	Activity Name	OD	Start	Finish	Total Float
SUB-104	Flooring- Submittal	10	02-Jun-26	15-Jun-26	206
SUB-105	Flooring -Submittal to AOR	10	16-Jun-26	29-Jun-26	206
SUB-106	Flooring - Procurement	10	30-Jun-26	14-Jul-26	206
SUB-107	Flooring - coordinate on-site delivery	5	15-Jul-26	21-Jul-26	206
ACT Ceilings		50	02-Jun-26	11-Aug-26	161
SUB-108	ACT Ceilings -Submittal	10	02-Jun-26	15-Jun-26	161
SUB-109	ACT Ceilings -Submittal to AOR	10	16-Jun-26	29-Jun-26	161
SUB-110	ACT Ceilings - Procurement	25	30-Jun-26	04-Aug-26	161
SUB-111	ACT Ceilings- coordinate on-site delivery	5	05-Aug-26	11-Aug-26	161
Div 10 Specialties		85	02-Jun-26	30-Sep-26	158
SUB-112	Div 10 Specialties- Submittal	10	02-Jun-26	15-Jun-26	158
SUB-113	Div 10 Specialties -Submittal to AOR	10	16-Jun-26	29-Jun-26	158
SUB-114	Div 10 Specialties - Procurement	60	30-Jun-26	23-Sep-26	158
SUB-115	Div 10 Specialties - coordinate on-site delivery	5	24-Sep-26	30-Sep-26	158
Toilet Accessories		65	02-Jun-26	01-Sep-26	170
SUB-152	TA's- Submittal	10	02-Jun-26	15-Jun-26	170
SUB-153	TA's -Submittal to AOR	10	16-Jun-26	29-Jun-26	170
SUB-154	TA's - Procurement	40	30-Jun-26	25-Aug-26	170
SUB-155	TA's - coordinate on-site delivery	5	26-Aug-26	01-Sep-26	170
Lockers		65	02-Jun-26	01-Sep-26	178
SUB-156	Lockers- Submittal	10	02-Jun-26	15-Jun-26	178
SUB-157	Lockers -Submittal to AOR	10	16-Jun-26	29-Jun-26	178
SUB-158	Lockers - Procurement	40	30-Jun-26	25-Aug-26	178
SUB-159	Lockers- coordinate on-site delivery	5	26-Aug-26	01-Sep-26	178
Paint		65	02-Jun-26	01-Sep-26	134
SUB-160	Paint- Submittal	10	02-Jun-26	15-Jun-26	134
SUB-161	Paint -Submittal to AOR	10	16-Jun-26	29-Jun-26	134
SUB-162	Paint- Procurement	40	30-Jun-26	25-Aug-26	134
SUB-163	Paint - coordinate on-site delivery	5	26-Aug-26	01-Sep-26	134
FRP/Crash and Corner Guards		65	02-Jun-26	01-Sep-26	180
SUB-164	FRP/Crash and Corner Guards- Submittal	10	02-Jun-26	15-Jun-26	180
SUB-165	FRP/Crash and Corner Guards- -Submittal to AOR	10	16-Jun-26	29-Jun-26	180
SUB-166	FRP/Crash and Corner Guards-- Procurement	40	30-Jun-26	25-Aug-26	180
SUB-167	FRP/Crash and Corner Guards- - coordinate on-site delivery	5	26-Aug-26	01-Sep-26	180
Fire Extinguisher Boxes		55	02-Jun-26	18-Aug-26	190
SUB-168	FEC's- Submittal	10	02-Jun-26	15-Jun-26	190
SUB-169	FEC's -Submittal to AOR	10	16-Jun-26	29-Jun-26	190
SUB-170	FEC's - Procurement	30	30-Jun-26	11-Aug-26	190
SUB-171	FEC's - coordinate on-site delivery	5	12-Aug-26	18-Aug-26	190
Curtain Track		65	02-Jun-26	01-Sep-26	139
SUB-176	Curtain Track- Submittal	10	02-Jun-26	15-Jun-26	139
SUB-177	Curtain Track-Submittal to AOR	10	16-Jun-26	29-Jun-26	139
SUB-178	Curtain Track- Procurement	40	30-Jun-26	25-Aug-26	139
SUB-179	Curtain Track - coordinate on-site delivery	5	26-Aug-26	01-Sep-26	139



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

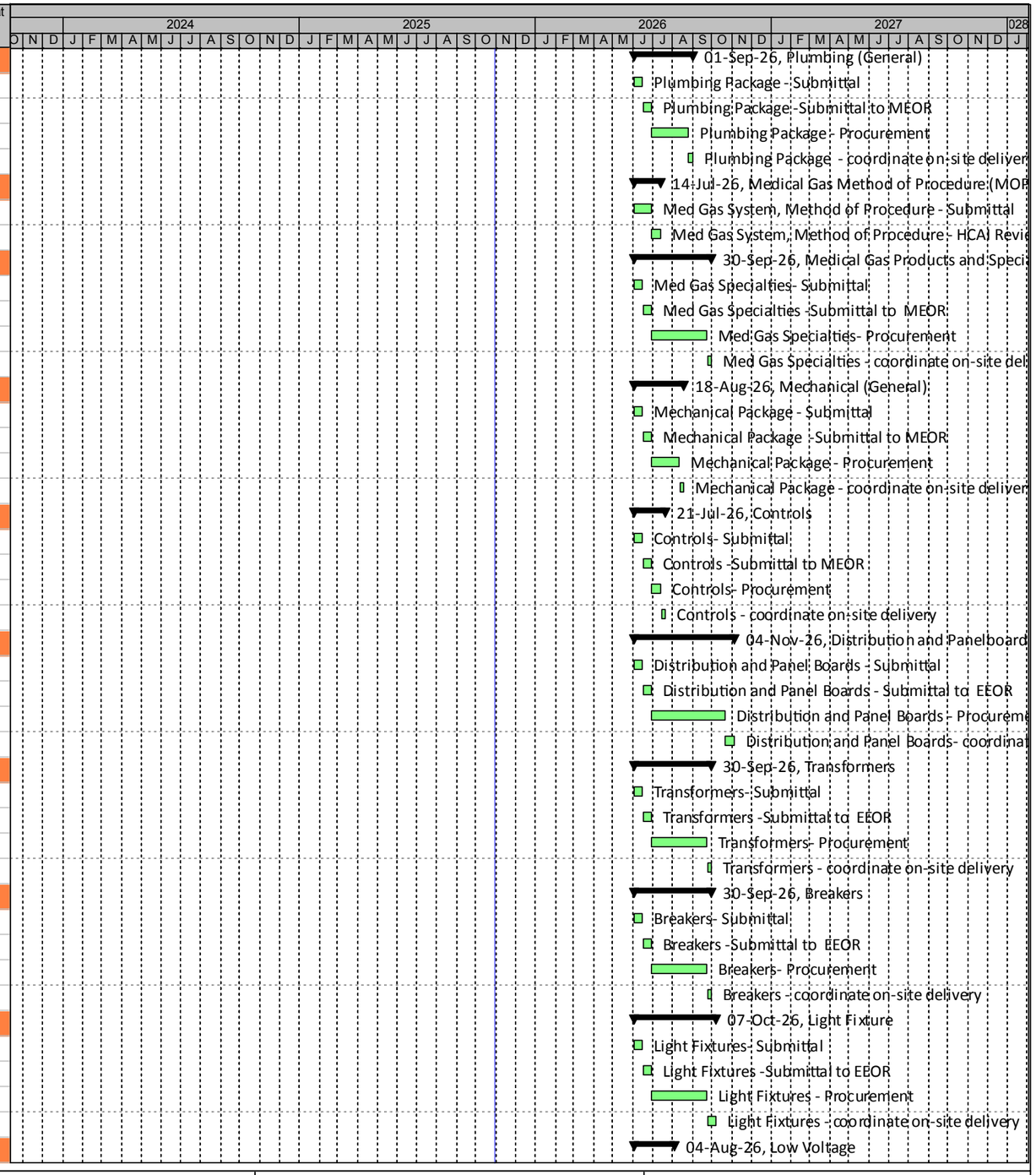
RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What If - "Updated"

Proposal Schedule

Riverside University HEALTH SYSTEM

BERNARDS

Activity ID	Activity Name	OD	Start	Finish	Total Float
Plumbing (General)		65	02-Jun-26	01-Sep-26	72
SUB-120	Plumbing Package - Submittal	10	02-Jun-26	15-Jun-26	72
SUB-121	Plumbing Package -Submittal to MEOR	10	16-Jun-26	29-Jun-26	72
SUB-122	Plumbing Package - Procurement	40	30-Jun-26	25-Aug-26	72
SUB-123	Plumbing Package - coordinate on-site delivery	5	26-Aug-26	01-Sep-26	72
Medical Gas Method of Procedure (MOP HCAI Approval)		30	02-Jun-26	14-Jul-26	92
SUB-35	Med Gas System, Method of Procedure - Submittal	20	02-Jun-26	29-Jun-26	92
SUB-36	Med Gas System, Method of Procedure - HCAI Review	10	30-Jun-26	14-Jul-26	92
Medical Gas Products and Specialties		85	02-Jun-26	30-Sep-26	37
SUB-184	Med Gas Specialties- Submittal	10	02-Jun-26	15-Jun-26	37
SUB-185	Med Gas Specialties -Submittal to MEOR	10	16-Jun-26	29-Jun-26	37
SUB-186	Med Gas Specialties- Procurement	60	30-Jun-26	23-Sep-26	37
SUB-187	Med Gas Specialties - coordinate on-site delivery	5	24-Sep-26	30-Sep-26	37
Mechanical (General)		55	02-Jun-26	18-Aug-26	82
SUB-124	Mechanical Package - Submittal	10	02-Jun-26	15-Jun-26	82
SUB-125	Mechanical Package -Submittal to MEOR	10	16-Jun-26	29-Jun-26	82
SUB-126	Mechanical Package - Procurement	30	30-Jun-26	11-Aug-26	82
SUB-127	Mechanical Package - coordinate on-site delivery	5	12-Aug-26	18-Aug-26	82
Controls		35	02-Jun-26	21-Jul-26	112
SUB-204	Controls- Submittal	10	02-Jun-26	15-Jun-26	112
SUB-205	Controls -Submittal to MEOR	10	16-Jun-26	29-Jun-26	112
SUB-206	Controls- Procurement	10	30-Jun-26	14-Jul-26	112
SUB-207	Controls - coordinate on-site delivery	5	15-Jul-26	21-Jul-26	112
Distribution and Panelboards		110	02-Jun-26	04-Nov-26	114
SUB-41	Distribution and Panel Boards - Submittal	10	02-Jun-26	15-Jun-26	114
SUB-44	Distribution and Panel Boards - Submittal to EEOR	10	16-Jun-26	29-Jun-26	114
SUB-42	Distribution and Panel Boards - Procurement	80	30-Jun-26	21-Oct-26	114
SUB-43	Distribution and Panel Boards- coordinate on-site delivery	10	22-Oct-26	04-Nov-26	114
Transformers		85	02-Jun-26	30-Sep-26	139
SUB-208	Transformers- Submittal	10	02-Jun-26	15-Jun-26	139
SUB-209	Transformers -Submittal to EEOR	10	16-Jun-26	29-Jun-26	139
SUB-210	Transformers- Procurement	60	30-Jun-26	23-Sep-26	139
SUB-211	Transformers - coordinate on-site delivery	5	24-Sep-26	30-Sep-26	139
Breakers		85	02-Jun-26	30-Sep-26	139
SUB-212	Breakers- Submittal	10	02-Jun-26	15-Jun-26	139
SUB-213	Breakers -Submittal to EEOR	10	16-Jun-26	29-Jun-26	139
SUB-214	Breakers- Procurement	60	30-Jun-26	23-Sep-26	139
SUB-215	Breakers - coordinate on-site delivery	5	24-Sep-26	30-Sep-26	139
Light Fixture		90	02-Jun-26	07-Oct-26	129
SUB-96	Light Fixtures- Submittal	10	02-Jun-26	15-Jun-26	129
SUB-97	Light Fixtures -Submittal to EEOR	10	16-Jun-26	29-Jun-26	129
SUB-98	Light Fixtures - Procurement	60	30-Jun-26	23-Sep-26	129
SUB-99	Light Fixtures - coordinate on-site delivery	10	24-Sep-26	07-Oct-26	129
Low Voltage		46	02-Jun-26	04-Aug-26	122



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What If - "Updated"

Proposal Schedule

Riverside University HEALTH SYSTEM

BERNARDS

Activity ID	Activity Name	OD	Start	Finish	Total Float
SUB-116	Low Voltage- Submittal	10	02-Jun-26	15-Jun-26	116
SUB-137	Low Voltage -Submittal to Riverside IT	10	16-Jun-26	29-Jun-26	120
SUB-117	Low Voltage -Submittal to EEOR	10	30-Jun-26	14-Jul-26	116
SUB-118	Low Voltage - Procurement	10	15-Jul-26	28-Jul-26	116
SUB-119	Low Voltage- coordinate on-site delivery	5	29-Jul-26	04-Aug-26	116
Owner/Vendor Procurement		120	04-May-26	21-Oct-26	195
A1110	Cath Lab Equipment (Purchasing and Procurement)	120	04-May-26	21-Oct-26	195
A1120	Hyperbaric Equipment (Purchasing and Procurement)	120	04-May-26	21-Oct-26	195
Construction		326	04-May-26	02-Aug-27	0
Mobilization		7	04-May-26	12-May-26	0
Make Ready Demo/Coordination		7	04-May-26	12-May-26	0
C-MR4	Construction Start	1	04-May-26	04-May-26	0
C-MR3	Mobilization	5	05-May-26	11-May-26	0
C-MR1	Demolition Coordination with Facilities/CM	5	06-May-26	12-May-26	0
Phase 1		278	09-Jul-26	02-Aug-27	0
Phase 1- Lower Level		43	09-Sep-26	06-Nov-26	0
Notifications of Work		15	09-Sep-26	29-Sep-26	1
C-PH1-LL-NOTI1	Prepare MOP's and Notifications of Work	5	09-Sep-26	15-Sep-26	0
C-PH1-LL-NOTI2	Infection Control Permit	5	16-Sep-26	22-Sep-26	0
C-PH1-LL-NOTI4	Review and Approve MOP for Work Notification	10	16-Sep-26	29-Sep-26	1
Demo		13	23-Sep-26	09-Oct-26	0
C-PH1-LL-DEMO1	Set-Up Infection Control	2	23-Sep-26	24-Sep-26	0
C-PH1-LL-DEMO	Pre Demo Air Balance	2	23-Sep-26	24-Sep-26	0
C-PH1-LL-DEMO2	Exploratory Demo, Flag, Document and Cap	2	25-Sep-26	28-Sep-26	0
C-PH1-LL-DEMO3	Remove Ceilings and Demo	2	29-Sep-26	30-Sep-26	0
C-PH1-LL-DEMO	Air Balance	2	01-Oct-26	02-Oct-26	0
C-PH1-LL-DEMO4	Spot Abatement	3	05-Oct-26	07-Oct-26	0
C-PH1-LL-DEMO5	Patch Fireproofing	1	08-Oct-26	08-Oct-26	0
C-PH1-LL-DEMO6	Clean-Up	1	09-Oct-26	09-Oct-26	0
(N) MEP Installation		20	12-Oct-26	06-Nov-26	0
Plumbing Demo GL J-G/7-19		20	12-Oct-26	06-Nov-26	0
C-PH1-LL-OH2	OH MEP Installation	10	12-Oct-26	23-Oct-26	0
C-PH1-LL-OH3	Testing and Inspection	5	26-Oct-26	30-Oct-26	0
C-PH1-LL-OH4	Restore Finishes	5	02-Nov-26	06-Nov-26	0
Phase 1- Level 1		245	09-Jul-26	16-Jun-27	7
Notifications of Work		25	09-Jul-26	12-Aug-26	3
C-PH1-L1-NOTI11	Drywall activities of Corridor	10	09-Jul-26	22-Jul-26	0
C-PH1-L1-NOTI1	Prepare MOP's and Notifications of Work	5	23-Jul-26	29-Jul-26	0
C-PH1-L1-NOTI2	Infection Control Permit	5	30-Jul-26	05-Aug-26	0
C-PH1-L1-NOTI4	Review and Approve MOP for Work Notification	10	30-Jul-26	12-Aug-26	3
Demo		30	06-Aug-26	16-Sep-26	5
C-PH1-L1-DEMO1	Set-Up Infection Control	5	06-Aug-26	12-Aug-26	0
C-PH1-L1-DEMO	Pre Demo Air Balance	2	06-Aug-26	07-Aug-26	3



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What If - "Updated"

Proposal Schedule

Riverside University HEALTH SYSTEM

BERNARDS

Activity ID	Activity Name	OD	Start	Finish	Total Float
C-PH1-L1-DEMO2	Exploratory Demo, Flag, Document and Cut and Cap	3	13-Aug-26	17-Aug-26	0
C-PH1-L1-DEMO3	Demolition and Abatement	15	18-Aug-26	08-Sep-26	0
C-PH1-L1-DEMO5	Patch Fireproofing	3	09-Sep-26	11-Sep-26	5
C-PH1-L1-DEMO6	Clean-Up	3	14-Sep-26	16-Sep-26	5
Structural Steel		72	17-Sep-26	30-Dec-26	15
C-PH1-L0-SS00	Install Roof Support Structures	5	17-Sep-26	23-Sep-26	5
C-PH1-L0-SS01	Install Cathlab Support Structure 1 & 2	20	24-Sep-26	21-Oct-26	5
C-PH1-L1-CATH1	Medical Equipment OH Supports and Booms Structural	10	09-Dec-26	22-Dec-26	15
C-PH1-L0-SS11	Fire Spray	5	23-Dec-26	30-Dec-26	15
Interior Build Out		195	17-Sep-26	16-Jun-27	7
Overhead		77	22-Oct-26	05-Feb-27	2
C-PH1-L1-OH1	Start Interior Work	0	22-Oct-26		5
C-PH1-L1-OH11	Layout walls	7	22-Oct-26	30-Oct-26	5
C-PH1-L1-OH18	Layout MEP for wall framing	2	29-Oct-26	30-Oct-26	5
C-PH1-L1-OH22	MEP Coring	5	02-Nov-26	06-Nov-26	20
C-PH1-L1-OH12	OH MEP hangers & attachments (before SOFP)	5	09-Nov-26	13-Nov-26	0
C-PH1-L1-OH13	Spray-on fireproofing and clean-up	5	16-Nov-26	20-Nov-26	0
C-PH1-L1-OH23	Wall Framing and Top Down Drywall	10	23-Nov-26	08-Dec-26	0
C-PH1-L1-OH5	RI OH Fire Sprinkler Mains	5	09-Dec-26	15-Dec-26	0
C-PH1-L1-OH2	RI OH Plumbing, Waste & Vent	10	16-Dec-26	30-Dec-26	0
C-PH1-L1-OH4	RI OH Mechanical Piping, Mains & Racks	10	16-Dec-26	30-Dec-26	0
C-PH1-L1-OH3	RI OH Ductwork Main	10	31-Dec-26	14-Jan-27	0
C-PH1-L1-OH8	RI Terminal Units	5	31-Dec-26	07-Jan-27	0
C-PH1-L1-OH7	RI OH Branch Ducts	5	08-Jan-27	14-Jan-27	9
C-PH1-L1-OH14	RI OH Domestic CW, HW and HWR Mains and Rack	7	08-Jan-27	19-Jan-27	3
C-PH1-L1-OH16	Coordinate with Riverside IT for Device Placement	5	08-Jan-27	14-Jan-27	5
C-PH1-L1-OH20	OH Seismic bracing (MEP/FS/FA)	5	12-Jan-27	19-Jan-27	3
C-PH1-L1-OH21	Final pass monokote	3	14-Jan-27	19-Jan-27	5
C-PH1-L1-OH6	RI OH Electrical/ Low Voltage & Cable Tray	10	15-Jan-27	29-Jan-27	4
C-PH1-L1-OH19	RI OH Fire Sprinkler Branch	5	15-Jan-27	22-Jan-27	0
C-PH1-L1-OH10	Pressure Test & Inspect OH Sys	2	25-Jan-27	26-Jan-27	0
C-PH1-L1-OH9	Mechanical Insulation	5	27-Jan-27	02-Feb-27	2
C-PH1-L1-OH17	Completion of All Seismic Bracing	3	03-Feb-27	05-Feb-27	2
In-wall		120	17-Sep-26	03-Mar-27	0
C-PH1-L1-IW21	Apply Window Filim	5	17-Sep-26	23-Sep-26	89
C-PH1-L1-IW1	Production Framing	5	27-Jan-27	02-Feb-27	0
C-PH1-L1-IW16	Complete framing @ Mech shaft Walls / Soffits	5	27-Jan-27	02-Feb-27	3
C-PH1-L1-IW2	Rough In-Wall Electrical	10	03-Feb-27	17-Feb-27	0
C-PH1-L1-IW3	Rough In-Wall Domestic Water	10	03-Feb-27	17-Feb-27	0
C-PH1-L1-IW4	Rough In-Wall Waste, Vent	10	03-Feb-27	17-Feb-27	0
C-PH1-L1-IW5	Countertop Supports	2	03-Feb-27	04-Feb-27	1
C-PH1-L1-IW18	RI In-Wall low voltage/ Security/ FA systems	10	03-Feb-27	17-Feb-27	0
C-PH1-L1-IW19	RI BMS system (conduits, pull wiring & set devices)	10	03-Feb-27	17-Feb-27	0
C-PH1-L1-IW36	Individual Trade Backing Layout	2	03-Feb-27	04-Feb-27	2



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

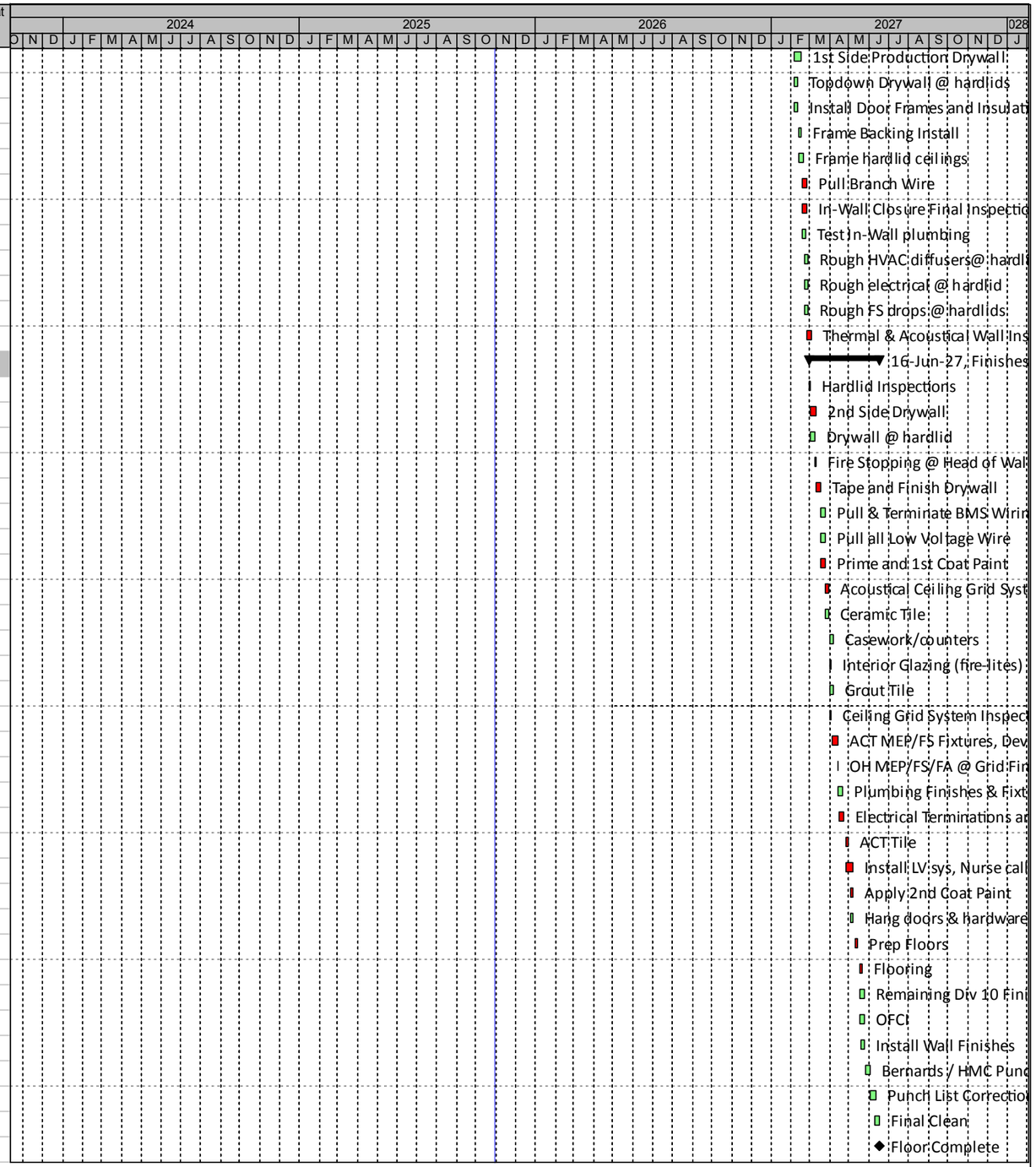
RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What If - "Updated"

Proposal Schedule

Riverside University HEALTH SYSTEM

BERNARDS

Activity ID	Activity Name	OD	Start	Finish	Total Float
C-PH1-L1-IW8	1st Side Production Drywall	7	05-Feb-27	16-Feb-27	1
C-PH1-L1-IW9	Topdown Drywall @ hardlids	5	05-Feb-27	11-Feb-27	1
C-PH1-L1-IW26	Install Door Frames and Insulation	5	05-Feb-27	11-Feb-27	2
C-PH1-L1-IW6	Frame Backing Install	2	12-Feb-27	16-Feb-27	1
C-PH1-L1-IW10	Frame hardlid ceilings	5	12-Feb-27	19-Feb-27	1
C-PH1-L1-IW7	Pull Branch Wire	5	18-Feb-27	24-Feb-27	0
C-PH1-L1-IW11	In-Wall Closure Final Inspections	5	18-Feb-27	24-Feb-27	0
C-PH1-L1-IW17	Test In-Wall plumbing	3	18-Feb-27	22-Feb-27	2
C-PH1-L1-IW13	Rough HVAC diffusers@ hardlid	5	22-Feb-27	26-Feb-27	1
C-PH1-L1-IW14	Rough electrical @ hardlid	5	22-Feb-27	26-Feb-27	1
C-PH1-L1-IW15	Rough FS drops @ hardlids	5	22-Feb-27	26-Feb-27	1
C-PH1-L1-IW12	Thermal & Acoustical Wall Insulation	5	25-Feb-27	03-Mar-27	0
Finishes		78	01-Mar-27	16-Jun-27	7
C-PH1-L1-F28	Hardlid Inspections	1	01-Mar-27	01-Mar-27	2
C-PH1-L1-F1	2nd Side Drywall	7	02-Mar-27	10-Mar-27	0
C-PH1-L1-F3	Drywall @ hardlid	5	02-Mar-27	08-Mar-27	2
C-PH1-L1-F27	Fire Stopping @ Head of Walls	3	09-Mar-27	11-Mar-27	4
C-PH1-L1-F4	Tape and Finish Drywall	5	11-Mar-27	17-Mar-27	0
C-PH1-L1-F2	Pull & Terminate BMS Wiring	5	18-Mar-27	24-Mar-27	22
C-PH1-L1-F5	Pull all Low Voltage Wire	5	18-Mar-27	24-Mar-27	22
C-PH1-L1-F7	Prime and 1st Coat Paint	5	18-Mar-27	24-Mar-27	0
C-PH1-L1-F6	Acoustical Ceiling Grid System	5	25-Mar-27	31-Mar-27	0
C-PH1-L1-F11	Ceramic Tile	5	25-Mar-27	31-Mar-27	21
C-PH1-L1-F10	Casework/counters	5	01-Apr-27	07-Apr-27	27
C-PH1-L1-F13	Interior Glazing (fire-lites)	2	01-Apr-27	02-Apr-27	20
C-PH1-L1-F14	Grout Tile	5	01-Apr-27	07-Apr-27	21
C-PH1-L1-F30	Ceiling Grid System Inspection	2	01-Apr-27	02-Apr-27	0
C-PH1-L1-F9	ACT MEP/FS Fixtures, Devices, Registers	7	05-Apr-27	13-Apr-27	0
C-PH1-L1-F8	OH MEP/FS/FA @ Grid Final Inspections	1	14-Apr-27	14-Apr-27	0
C-PH1-L1-F16	Plumbing Finishes & Fixtures	5	14-Apr-27	20-Apr-27	17
C-PH1-L1-F12	Electrical Terminations and Fixtures	7	15-Apr-27	23-Apr-27	0
C-PH1-L1-F15	ACT Tile	5	26-Apr-27	30-Apr-27	0
C-PH1-L1-F29	Install LV sys, Nurse call, OH paging, Security, DAS, FA Devices	10	26-Apr-27	07-May-27	0
C-PH1-L1-F17	Apply 2nd Coat Paint	5	03-May-27	07-May-27	0
C-PH1-L1-F18	Hang doors & hardware	5	03-May-27	07-May-27	14
C-PH1-L1-F19	Prep Floors	5	10-May-27	14-May-27	0
C-PH1-L1-F20	Flooring	5	17-May-27	21-May-27	0
C-PH1-L1-F21	Remaining Div 10 Finishes	7	17-May-27	25-May-27	2
C-PH1-L1-F22	OFCI	7	17-May-27	25-May-27	17
C-PH1-L1-F40	Install Wall Finishes	5	19-May-27	25-May-27	2
C-PH1-L1-F23	Bernards / HMC Punch list	5	26-May-27	02-Jun-27	2
C-PH1-L1-F24	Punch List Corrections	7	03-Jun-27	11-Jun-27	7
C-PH1-L1-F25	Final Clean	5	10-Jun-27	16-Jun-27	7
C-PH1-L1-F26	Floor Complete	0		16-Jun-27	7



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

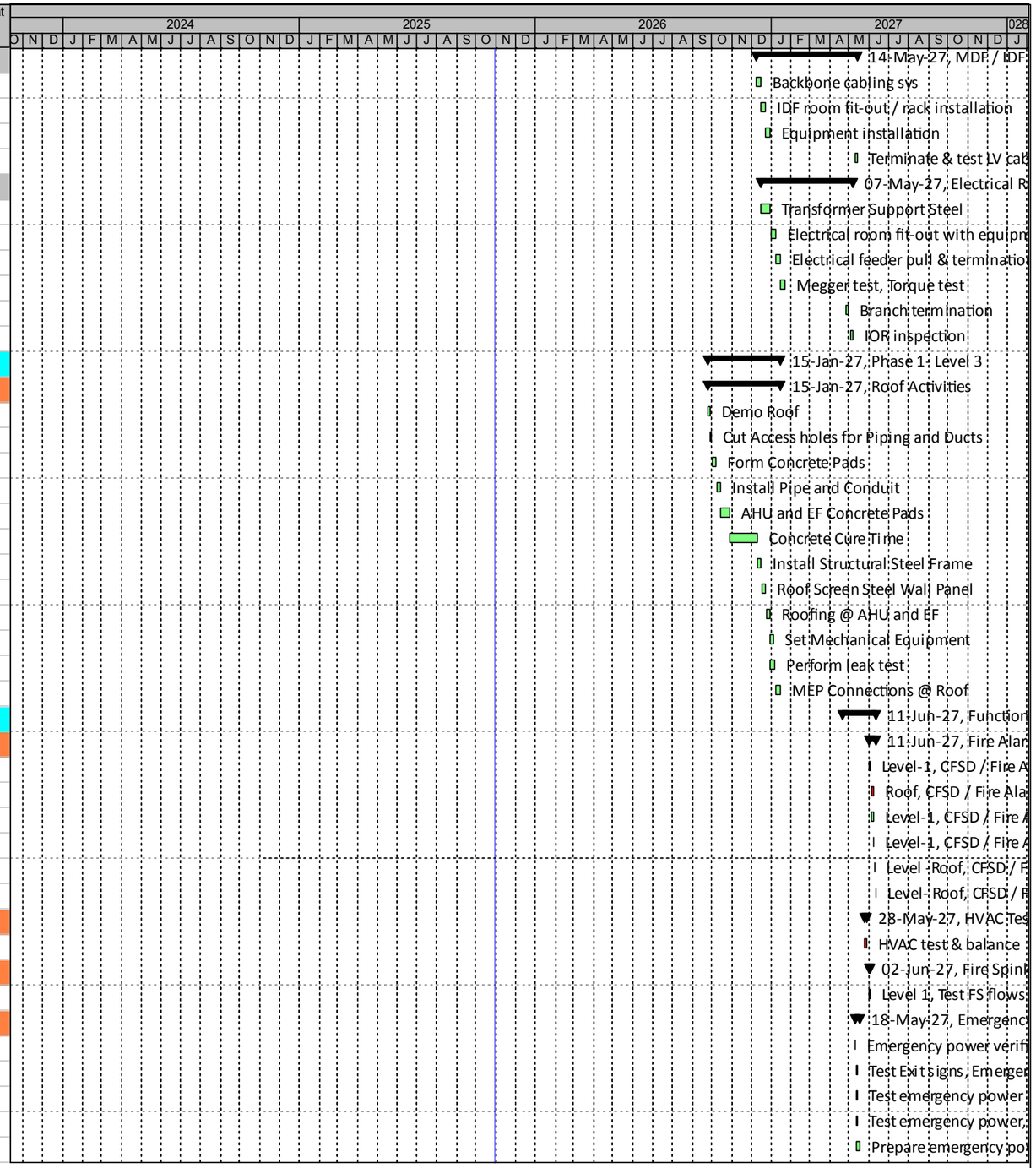
RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What If - "Updated"

Proposal Schedule

Riverside University HEALTH SYSTEM

BERNARDS

Activity ID	Activity Name	OD	Start	Finish	Total Float
MDF / IDF Rooms		109	09-Dec-26	14-May-27	3
C-PH1-L1-IDF4	Backbone cabling sys	5	09-Dec-26	15-Dec-26	92
C-PH1-L1-IDF1	IDF room fit-out / rack installation	5	16-Dec-26	22-Dec-26	92
C-PH1-L1-IDF3	Equipment installation	5	23-Dec-26	30-Dec-26	92
C-PH1-L1-IDF2	Terminate & test LV cabling	5	10-May-27	14-May-27	3
Electrical Room		99	16-Dec-26	07-May-27	13
C-PH1-L1-ELEC21	Transformer Support Steel	10	16-Dec-26	30-Dec-26	77
C-PH1-L1-ELEC1	Electrical room fit-out with equipment	5	31-Dec-26	07-Jan-27	77
C-PH1-L1-ELEC2	Electrical feeder pull & termination	5	08-Jan-27	14-Jan-27	77
C-PH1-L1-ELEC3	Megger test, Torque test	5	15-Jan-27	22-Jan-27	77
C-PH1-L1-ELEC4	Branch termination	5	26-Apr-27	30-Apr-27	13
C-PH1-L1-ELEC5	IOR inspection	5	03-May-27	07-May-27	13
Phase 1- Level 3		82	24-Sep-26	15-Jan-27	90
Roof Activities		82	24-Sep-26	15-Jan-27	90
C-PH1-L3-ROOF15	Demo Roof	3	24-Sep-26	28-Sep-26	88
C-PH1-L3-ROOF25	Cut Access holes for Piping and Ducts	2	29-Sep-26	30-Sep-26	88
C-PH1-L3-ROOF35	Form Concrete Pads	5	01-Oct-26	07-Oct-26	88
C-PH1-L3-ROOF45	Install Pipe and Conduit	5	08-Oct-26	14-Oct-26	88
C-PH1-L3-ROOF5	AHU and EF Concrete Pads	10	15-Oct-26	28-Oct-26	88
C-PH1-L3-ROOF1	Concrete Cure Time	28	29-Oct-26	09-Dec-26	88
C-PH1-L3-ROOF21	Install Structural Steel Frame	5	10-Dec-26	16-Dec-26	92
C-PH1-L3-ROOF11	Roof Screen Steel Wall Panel	5	17-Dec-26	23-Dec-26	88
C-PH1-L3-ROOF4	Roofing @ AHU and EF	3	24-Dec-26	29-Dec-26	88
C-PH1-L3-ROOF3	Set Mechanical Equipment	3	30-Dec-26	04-Jan-27	90
C-PH1-L3-ROOF14	Perform leak test	5	30-Dec-26	06-Jan-27	88
C-PH1-L3-ROOF2	MEP Connections @ Roof	7	07-Jan-27	15-Jan-27	88
Functional, Performace Test, Balance, & Close-out		37	21-Apr-27	11-Jun-27	0
Fire Alarm System		9	01-Jun-27	11-Jun-27	0
C-PH1-MEPSUT1	Level-1, CFSD / Fire Alarm	3	01-Jun-27	03-Jun-27	0
C-PH1-MEPSUT2	Roof, CFSD / Fire Alarm	3	04-Jun-27	08-Jun-27	0
C-PH1-MEPSUT3	Level-1, CFSD / Fire Alarm IOR testing	2	04-Jun-27	07-Jun-27	2
C-PH1-MEPSUT4	Level-1, CFSD / Fire Alarm HCAI testing	1	08-Jun-27	08-Jun-27	2
C-PH1-MEPSUT34	Level -Roof, CFSD / Fire Alarm IOR testing	2	09-Jun-27	10-Jun-27	0
C-PH1-MEPSUT33	Level- Roof, CFSD / Fire Alarm HCAI testing	1	11-Jun-27	11-Jun-27	0
HVAC Testing and Balance		5	24-May-27	28-May-27	0
C-PH1-MEPSUT5	HVAC test & balance	5	24-May-27	28-May-27	0
Fire Spinkler		2	01-Jun-27	02-Jun-27	3
C-PH1-MEPSUT19	Level 1, Test FS flows & tampers	2	01-Jun-27	02-Jun-27	3
Emergency Power Testing		7	10-May-27	18-May-27	17
C-PH1-MEPSUT8	Emergency power verification testing	2	10-May-27	11-May-27	17
C-PH1-MEPSUT9	Test Exit signs, Emergency Lighting, FA panel	2	12-May-27	13-May-27	17
C-PH1-MEPSUT10	Test emergency power @ Med Gas	2	12-May-27	13-May-27	17
C-PH1-MEPSUT11	Test emergency power, Task Lighting, receptacles, nurse call	2	12-May-27	13-May-27	17
C-PH1-MEPSUT12	Prepare emergency power verified report	5	12-May-27	18-May-27	17



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What If - "Updated"

Proposal Schedule

Riverside University HEALTH SYSTEM

BERNARDS

Activity ID	Activity Name	OD	Start	Finish	Total Float
Door / Hardware Testing		2	24-May-27	25-May-27	3
C-PH1-MEPSUT14	Level 1, Door hardware testing (FLS)	2	24-May-27	25-May-27	3
Chlorination fo Plumbing System		14	21-Apr-27	10-May-27	23
C-PH1-MEPSUT15	Chlorinate & flush DWS	3	21-Apr-27	23-Apr-27	23
C-PH1-MEPSUT16	DWS testing	1	26-Apr-27	26-Apr-27	23
C-PH1-MEPSUT17	DWS testing report / lab results	3	27-Apr-27	29-Apr-27	23
C-PH1-MEPSUT18	P/E review DWS report	5	30-Apr-27	06-May-27	23
C-PH1-MEPSUT30	Start-up water heaters / boilers	2	30-Apr-27	03-May-27	23
C-PH1-MEPSUT31	DWS water balancing / QA & QC	5	04-May-27	10-May-27	23
C-PH1-MEPSUT32	Domestic water systems complete	0		10-May-27	23
Low Voltage Sys. Testing (Nurse call, OH paging, Security, DAS, FA Devices)		7	17-May-27	25-May-27	3
C-PH1-MEPSUT20	Start-up & pre-test Low Voltage systems	7	17-May-27	25-May-27	3
Med-gas Systems		15	21-Apr-27	11-May-27	17
C-PH1-MEPSUT21	Med gas panel installation LD	1	21-Apr-27	21-Apr-27	17
C-PH1-MEPSUT23	Med gas, initial pressure test (PP/VS)	1	22-Apr-27	22-Apr-27	17
C-PH1-MEPSUT24	Med gas, cross connect test	2	23-Apr-27	26-Apr-27	17
C-PH1-MEPSUT25	Med gas, piping purity test	2	27-Apr-27	28-Apr-27	17
C-PH1-MEPSUT26	Med gas, standing pressure test (PP/VS)	2	29-Apr-27	30-Apr-27	17
C-PH1-MEPSUT22	Med gas panel start-up & certification	1	03-May-27	03-May-27	17
C-PH1-MEPSUT27	Med gas, 3rd party certification	5	04-May-27	10-May-27	17
C-PH1-MEPSUT28	Med gas introduction	1	11-May-27	11-May-27	17
C-PH1-MEPSUT29	Med gas system complete	0		11-May-27	17
Equipment Install and Licensing		167	11-Dec-26	02-Aug-27	0
A1140	Vendor and Contractor Coordination	5	11-Dec-26	17-Dec-26	121
A1130	Owner Equipment Installation	20	12-May-27	09-Jun-27	17
C-PH1-LICE1	Cath Lab Equipment Installation by Vendor	20	12-May-27	09-Jun-27	17
C-PH1-LICE2	RUHS Install and Licensing	20	06-Jul-27	02-Aug-27	0
Closeout		27	26-May-27	02-Jul-27	20
C-PH1-CLOSE5	Closeout and Punchlist Sign-Off	20	26-May-27	23-Jun-27	2
C-PH1-CLOSE12	Testing of Nurse Call System	10	26-May-27	09-Jun-27	2
C-PH1-CLOSE2	Test, Startup & Balance Complete	0		11-Jun-27	0
C-PH1-CLOSE3	Fire & Life Safety Testing Complete	0		11-Jun-27	0
C-PH1-CLOSE1	Construction Admin and TIO Sign Off	15	14-Jun-27	02-Jul-27	0
C-PH1-CLOSE4	Substantial Completion Phase 1	0		02-Jul-27	20
Phase 2		205	13-May-26	23-Feb-27	85
Phase 2 - Level 1		205	13-May-26	23-Feb-27	85
Notifications of Work		10	13-May-26	27-May-26	0
C-PH2-L1-NOTI1	Prepare MOP's and Notifications of Work	5	13-May-26	19-May-26	0
C-PH2-L1-NOTI2	Infection Control Permit	5	20-May-26	27-May-26	0
C-PH2-L1-NOTI4	Review and Approve MOP for Work Notification	5	20-May-26	27-May-26	0
Demo and Abatment		18	28-May-26	22-Jun-26	0
C-PH2-L1-DEMO7	Set-Up Infection Control	3	28-May-26	01-Jun-26	0
C-PH2-L1-DEMO	Pre Demo Air Balance	2	02-Jun-26	03-Jun-26	0



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What If - "Updated"

Proposal Schedule

Riverside University HEALTH SYSTEM

BERNARDS

Activity ID	Activity Name	OD	Start	Finish	Total Float
C-PH2-L1-DEMO8	Exploratory Demo, Flag, Document and Cut and Cap	3	04-Jun-26	08-Jun-26	0
C-PH2-L1-DEMO9	Demolition	5	09-Jun-26	15-Jun-26	0
C-PH2-L1-DEMO	Clean-Up	3	16-Jun-26	18-Jun-26	0
C-PH2-L1-DEMO	Post Demo Air Balance	2	19-Jun-26	22-Jun-26	0
Overhead		107	23-Jun-26	20-Nov-26	86
C-PH2-L1-OH1	Start Interior Work	0	23-Jun-26		0
C-PH2-L1-OH11	Layout walls	4	23-Jun-26	26-Jun-26	0
C-PH2-L1-OH18	Layout MEP for wall framing	1	26-Jun-26	26-Jun-26	0
C-PH2-L1-OH12	OH MEP hangers & attachments (before SOFP)	2	29-Jun-26	30-Jun-26	0
C-PH2-L1-OH13	Spray-on fireproofing and clean-up	2	01-Jul-26	02-Jul-26	0
C-PH2-L1-OH23	Priority Wall Framing and Top Down Drywall	3	06-Jul-26	08-Jul-26	0
C-PH2-L1-OH5	RI OH Fire Sprinkler Mains	3	26-Oct-26	28-Oct-26	84
C-PH2-L1-OH2	RI OH Plumbing, Waste & Vent	3	29-Oct-26	02-Nov-26	84
C-PH2-L1-OH4	RI OH Mechanical Piping, Mains & Racks	3	29-Oct-26	02-Nov-26	84
C-PH2-L1-OH3	RI OH Ductwork Main	3	03-Nov-26	05-Nov-26	84
C-PH2-L1-OH8	RI Terminal Units	3	03-Nov-26	05-Nov-26	84
C-PH2-L1-OH19	RI OH Fire Sprinkler Branch	3	06-Nov-26	10-Nov-26	86
C-PH2-L1-OH6	RI OH Electrical/ Low Voltage & Cable Tray	5	10-Nov-26	16-Nov-26	88
C-PH2-L1-OH7	RI OH Branch Ducts	5	10-Nov-26	16-Nov-26	86
C-PH2-L1-OH14	RI OH Domestic CW, HW and HWR Mains and Rack	3	10-Nov-26	12-Nov-26	84
C-PH2-L1-OH20	OH Seismic bracing (MEP/FS/FA)	3	10-Nov-26	12-Nov-26	84
C-PH2-L1-OH21	Final pass monokote	2	11-Nov-26	12-Nov-26	85
C-PH2-L1-OH10	Pressure Test & Inspect OH Sys	1	13-Nov-26	13-Nov-26	84
C-PH2-L1-OH9	Mechanical Insulation	2	17-Nov-26	18-Nov-26	86
C-PH2-L1-OH17	Completion of All Seismic Bracing	2	19-Nov-26	20-Nov-26	86
In-wall		17	16-Nov-26	08-Dec-26	89
C-PH2-L1-IW1	Production Framing	3	16-Nov-26	18-Nov-26	84
C-PH2-L1-IW16	Complete framing @ Mech shaft Walls / Soffits	5	16-Nov-26	20-Nov-26	86
C-PH2-L1-IW3	Rough In-Wall Domestic Water	5	19-Nov-26	25-Nov-26	88
C-PH2-L1-IW4	Rough In-Wall Waste, Vent	5	19-Nov-26	25-Nov-26	88
C-PH2-L1-IW5	Countertop Supports	2	19-Nov-26	20-Nov-26	86
C-PH1-L1-IW46	Individual Trade Backing Layout	2	19-Nov-26	20-Nov-26	90
C-PH2-L1-IW2	Rough In-Wall Electrical	5	23-Nov-26	01-Dec-26	88
C-PH2-L1-IW6	Frame Backing Installation	2	23-Nov-26	24-Nov-26	89
C-PH2-L1-IW18	RI In-Wall low voltage/ Security/ FA systems	5	23-Nov-26	01-Dec-26	88
C-PH2-L1-IW19	RI BMS system (conduits, pull wiring & set devices)	5	23-Nov-26	01-Dec-26	88
C-PH1-L1-IW56	Install Door Frames and Insulation	2	23-Nov-26	24-Nov-26	90
C-PH2-L1-IW8	1st Side Production Drywall	3	25-Nov-26	01-Dec-26	84
C-PH2-L1-IW9	Topdown Drywall @ hardlids	3	25-Nov-26	01-Dec-26	84
C-PH2-L1-IW11	In-Wall Closure Final Inspections	2	30-Nov-26	01-Dec-26	88
C-PH2-L1-IW17	Test In-Wall plumbing	2	30-Nov-26	01-Dec-26	88
C-PH2-L1-IW7	Pull Branch Wire	2	02-Dec-26	03-Dec-26	88
C-PH2-L1-IW10	Frame hardlid ceilings	3	02-Dec-26	04-Dec-26	84
C-PH2-L1-IW12	Thermal & Acoustical Wall Insulation	2	02-Dec-26	03-Dec-26	88



Remaining Level of Effort
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Milestone

RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What If - "Updated"

Proposal Schedule

Riverside University HEALTH SYSTEM

BERNARDS

Activity ID	Activity Name	OD	Start	Finish	Total Float
C-PH2-L1-IW13	Rough HVAC diffusers@ hardlid	2	07-Dec-26	08-Dec-26	84
C-PH2-L1-IW14	Rough electrical @ hardlid	2	07-Dec-26	08-Dec-26	84
C-PH2-L1-IW15	Rough FS drops @ hardlids	2	07-Dec-26	08-Dec-26	84
Finishes		54	04-Dec-26	23-Feb-27	84
C-PH2-L1-F1	2nd Side Drywall	3	04-Dec-26	08-Dec-26	88
C-PH2-L1-F28	Hardlid Inspections	1	09-Dec-26	09-Dec-26	84
C-PH2-L1-F3	Drywall @ hardlid	3	10-Dec-26	14-Dec-26	84
C-PH2-L1-F27	Fire Stopping @ Head of Walls	2	11-Dec-26	14-Dec-26	89
C-PH2-L1-F4	Tape and Finish Drywall	5	15-Dec-26	21-Dec-26	84
C-PH2-L1-F2	Pull & Terminate BMS Wiring	3	22-Dec-26	24-Dec-26	96
C-PH2-L1-F5	Pull all Low Voltage Wire	3	22-Dec-26	24-Dec-26	96
C-PH2-L1-F7	Prime and 1st Coat Paint	3	22-Dec-26	24-Dec-26	84
C-PH2-L1-F6	Acoustical Ceiling Grid System	3	28-Dec-26	30-Dec-26	84
C-PH2-L1-F11	Ceramic Tile	3	28-Dec-26	30-Dec-26	93
C-PH2-L1-F10	Casework/counters	3	31-Dec-26	05-Jan-27	97
C-PH2-L1-F14	Grout Tile	2	31-Dec-26	04-Jan-27	93
C-PH2-L1-F30	Ceiling Grid System Inspection	1	31-Dec-26	31-Dec-26	85
C-PH2-L1-F9	ACT MEP/FS Fixtures, Devices, Registers	3	05-Jan-27	07-Jan-27	84
C-PH2-L1-F8	OH MEP/FS/FA @ Grid Final Inspections	1	08-Jan-27	08-Jan-27	84
C-PH2-L1-F16	Plumbing Finishes & Fixtures	3	08-Jan-27	12-Jan-27	90
C-PH2-L1-F12	Electrical Terminations and Fixtures	3	11-Jan-27	13-Jan-27	84
C-PH2-L1-F15	ACT Tile	2	14-Jan-27	15-Jan-27	84
C-PH2-L1-F29	Install LV sys, Nurse call, OH paging, Security, DAS, FA Devices	5	14-Jan-27	21-Jan-27	84
C-PH2-L1-F17	Apply 2nd Coat Paint	3	19-Jan-27	21-Jan-27	84
C-PH2-L1-F18	Hang doors & hardware	2	19-Jan-27	20-Jan-27	92
C-PH2-L1-F19	Prep Floors	2	22-Jan-27	25-Jan-27	84
C-PH2-L1-F20	Flooring	3	26-Jan-27	28-Jan-27	84
C-PH2-L1-F21	Remaining Div 10 Finishes	5	26-Jan-27	01-Feb-27	84
C-PH2-L1-F22	OFCI	5	26-Jan-27	01-Feb-27	94
C-PH2-L1-F23	Bernards / RUHS Punch list	5	02-Feb-27	08-Feb-27	84
C-PH2-L1-F24	Punch List Corrections	5	09-Feb-27	16-Feb-27	84
C-PH2-L1-F25	Final Clean	5	17-Feb-27	23-Feb-27	84
C-PH2-L1-F26	Floor Complete	0		23-Feb-27	84
Functional, Performace Test, Balance, & Close-out		19	13-Jan-27	09-Feb-27	86
Fire Alarm System		5	03-Feb-27	09-Feb-27	86
C-MEPSUT-1	Level-1, CFSD / Fire Alarm	2	03-Feb-27	04-Feb-27	86
C-MEPSUT-3	Level-1, CFSD / Fire Alarm IOR testing	2	05-Feb-27	08-Feb-27	86
C-MEPSUT-4	Level-1, CFSD / Fire Alarm OSHPD testing	1	09-Feb-27	09-Feb-27	86
HVAC Testing and Balance		3	29-Jan-27	02-Feb-27	86
C-MEPSUT-5	Level-1, HVAC test & balance	3	29-Jan-27	02-Feb-27	86
Fire Spinkler		1	03-Feb-27	03-Feb-27	87
C-MEPSUT-19	Level 1, Test FS flows & tampers	1	03-Feb-27	03-Feb-27	87
Emergency Power Testing		8	14-Jan-27	26-Jan-27	96



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

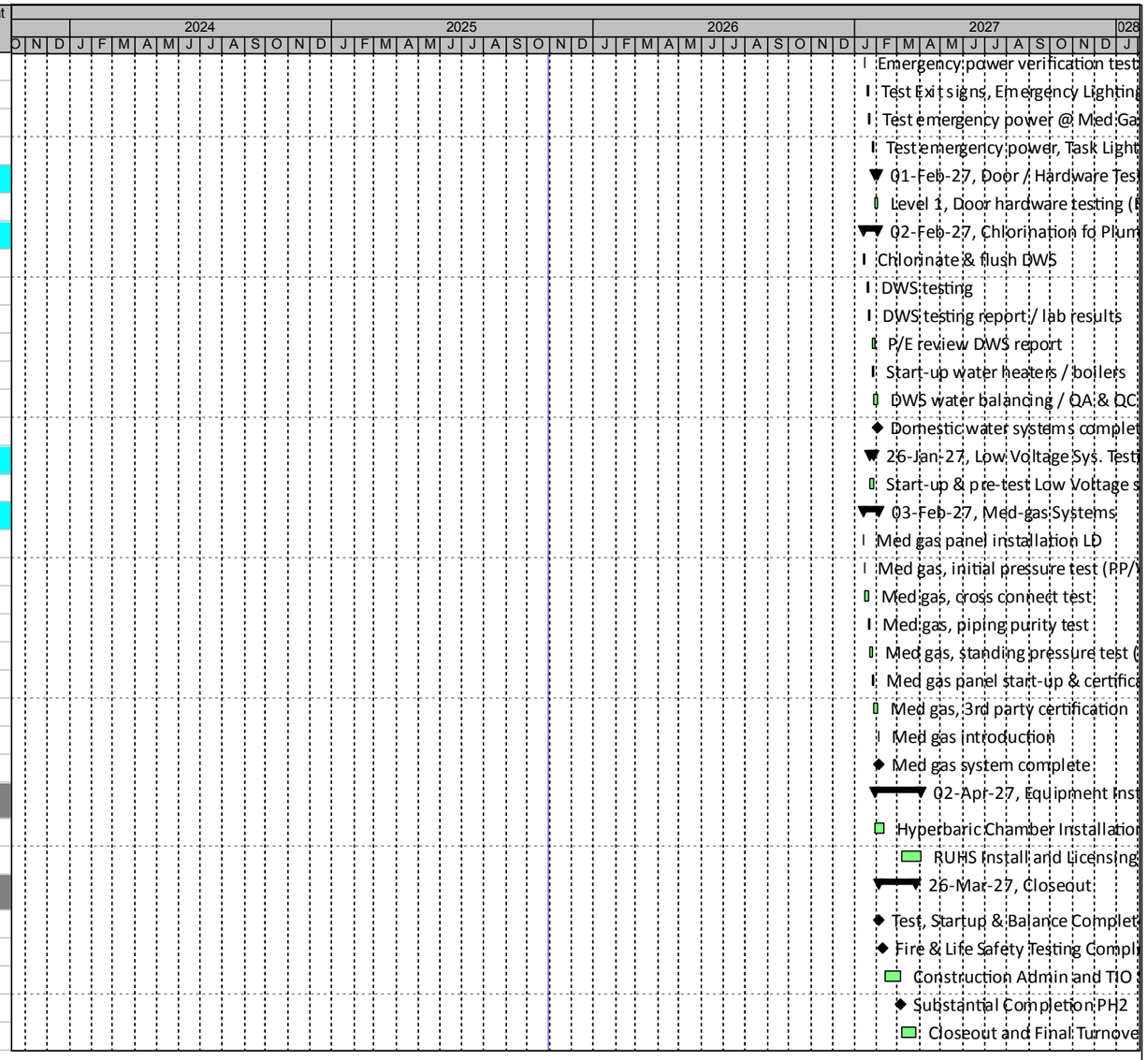
RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What If - "Updated"

Proposal Schedule

Riverside University HEALTH SYSTEM

BERNARDS

Activity ID	Activity Name	OD	Start	Finish	Total Float
C-MEPSUT-8	Emergency power verification testing	2	14-Jan-27	15-Jan-27	96
C-MEPSUT-9	Test Exit signs, Emergency Lighting, FA panel	2	19-Jan-27	20-Jan-27	96
C-MEPSUT-10	Test emergency power @ Med Gas	2	21-Jan-27	22-Jan-27	96
C-MEPSUT-11	Test emergency power, Task Lighting, receptacles, nurse call	2	25-Jan-27	26-Jan-27	96
Door / Hardware Testing		2	29-Jan-27	01-Feb-27	87
C-MEPSUT-14	Level 1, Door hardware testing (FLS)	2	29-Jan-27	01-Feb-27	87
Chlorination fo Plumbing System		14	13-Jan-27	02-Feb-27	91
C-MEPSUT-15	Chlorinate & flush DWS	3	13-Jan-27	15-Jan-27	91
C-MEPSUT-16	DWS testing	1	19-Jan-27	19-Jan-27	91
C-MEPSUT-17	DWS testing report / lab results	3	20-Jan-27	22-Jan-27	91
C-MEPSUT-18	P/E review DWS report	5	25-Jan-27	29-Jan-27	91
C-MEPSUT-30	Start-up water heaters / boilers	2	25-Jan-27	26-Jan-27	91
C-MEPSUT-31	DWS water balancing / QA & QC	5	27-Jan-27	02-Feb-27	91
C-MEPSUT-32	Domestic water systems complete	0		02-Feb-27	91
Low Voltage Sys. Testing (Nurse call, OH paging, Security, DAS, FA Devices)		3	22-Jan-27	26-Jan-27	91
C-MEPSUT-20	Start-up & pre-test Low Voltage systems	3	22-Jan-27	26-Jan-27	91
Med-gas Systems		15	13-Jan-27	03-Feb-27	90
C-MEPSUT-21	Med gas panel installation LD	1	13-Jan-27	13-Jan-27	90
C-MEPSUT-23	Med gas, initial pressure test (PP/VS)	1	14-Jan-27	14-Jan-27	90
C-MEPSUT-24	Med gas, cross connect test	2	15-Jan-27	19-Jan-27	90
C-MEPSUT-25	Med gas, piping purity test	2	20-Jan-27	21-Jan-27	90
C-MEPSUT-26	Med gas, standing pressure test (PP/VS)	2	22-Jan-27	25-Jan-27	90
C-MEPSUT-22	Med gas panel start-up & certification	1	26-Jan-27	26-Jan-27	90
C-MEPSUT-27	Med gas, 3rd party certification	5	27-Jan-27	02-Feb-27	90
C-MEPSUT-28	Med gas introduction	1	03-Feb-27	03-Feb-27	90
C-MEPSUT-29	Med gas system complete	0		03-Feb-27	90
Equipment Install and Licensing		45	29-Jan-27	02-Apr-27	84
A1010	Hyperbaric Chamber Installation by Vendor	10	29-Jan-27	11-Feb-27	84
A1020	RUHS Install and Licensing	20	08-Mar-27	02-Apr-27	84
Closeout		36	03-Feb-27	26-Mar-27	89
C-MEPSUT-34	Test, Startup & Balance Complete	0		03-Feb-27	90
C-MEPSUT-35	Fire & Life Safety Testing Complete	0		09-Feb-27	86
C-MEPSUT-33	Construction Admin and TIO Sign Off	15	12-Feb-27	05-Mar-27	84
C-MEPSUT-38	Substantial Completion PH2	0		05-Mar-27	89
C-MEPSUT-48	Closeout and Final Turnover	15	08-Mar-27	26-Mar-27	89



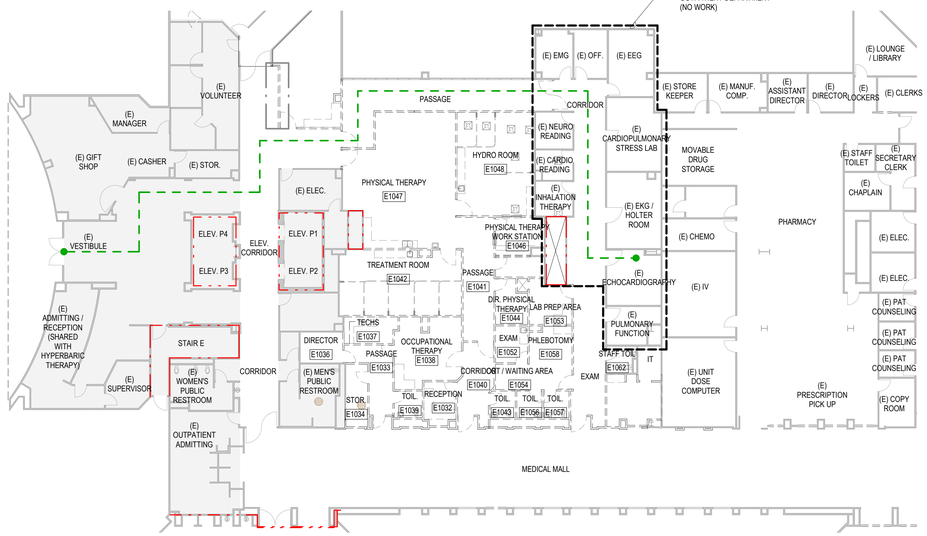
Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

RUHS - Medical Center Cardiac Catheterization Laboratory Suite - What If - "Updated"

Proposal Schedule

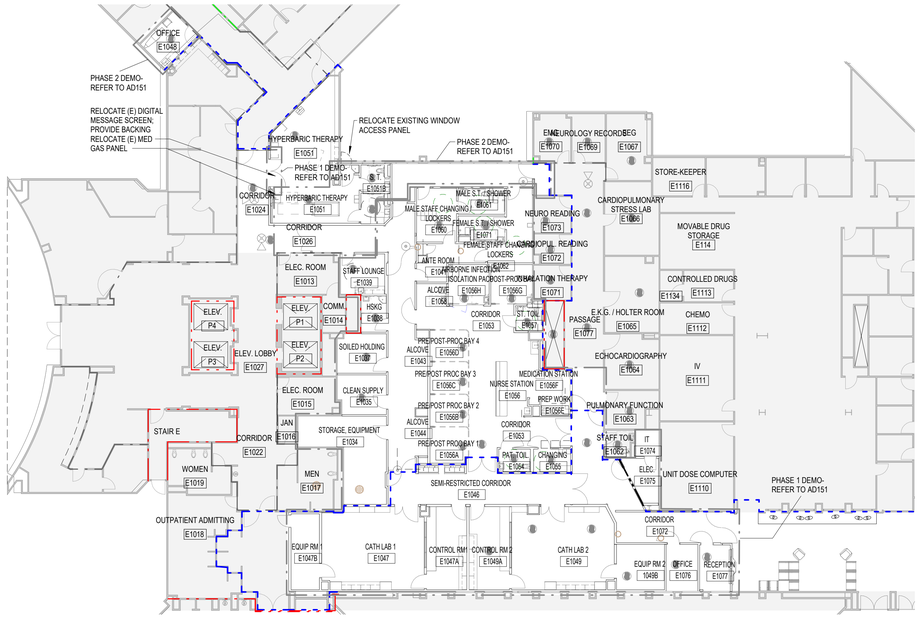
Riverside University HEALTH SYSTEM

BERNARDS



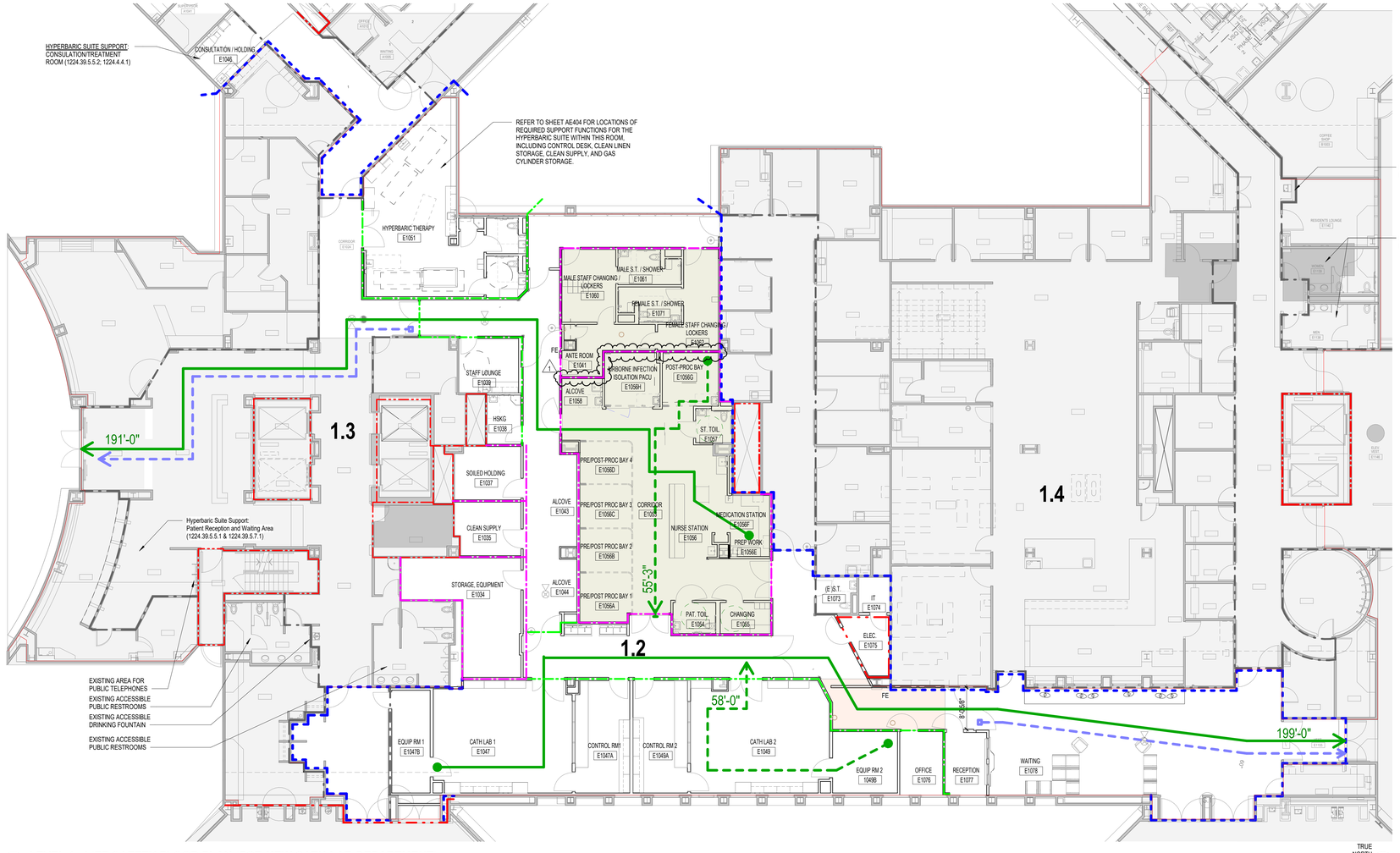
LEVEL 1 - LIFE SAFETY FLOOR PLAN (PHASE 1 EGRESS PLAN FOR EXISTING NEURO/CARDIO OUTPATIENT DEPARTMENT)

E1 SCALE: 1/16" = 1'-0"



PARTIAL FLOOR PLAN - LEVEL 1 - LIFE SAFETY FLOOR PLAN (PHASE 2 EGRESS PLAN FOR EXISTING NEURO/CARDIO DEPARTMENT)

E4 SCALE: 1/16" = 1'-0"



LEVEL 1 - LIFE SAFETY FLOOR PLAN (FOR NEW CATH LAB DEPARTMENT)

A1 SCALE: 1" = 10'-0"

TRUE NORTH

1ST FLOOR - EXISTING HEALTHCARE OCCUPANCY

COMPARMENT ID	COMPARTMENT SQ.FT.	OCCUPANCY LOAD	SPRINKLER SYSTEM	AREA USE	DISTANCE SMOKE	DISTANCE EXIT
1.1	8,603	36	FULL	TREATMENT	66'	105'
1.2	5,125	44	FULL	TREATMENT	86'	204'
1.3	12,538	129	FULL	TREATMENT	57'	194'
1.4	11,150	116	FULL	TREATMENT	107'	146'
1.5	10,459	105	FULL	TREATMENT	159'	76'

2022 CBC CODE APPLICATION MATRIX

Room #	Room Name	Room Function	App'l Code Ref.	SF Req'd	SF Provided
E1034	STORAGE, EQUIPMENT		1224.16.5.5		361 SF
E1035	CLEAN SUPPLY		1224.28.2.7		136 SF
E1037	SOILED HOLDING		1224.28.2.8		138 SF
E1038	HOUSEKEEPING		1224.28.2.9	15 SF	70 SF
E1039	STAFF LOUNGE				134 SF
E1040	CORRIDOR		1224.4.7		
E1041	ANTE ROOM				
E1043	ALCOVE				
E1044	ALCOVE				
E1046	CORRIDOR		1224.4.7		
E1047	CATH LAB 1		1224.28.2; 1224.28.2.1	400 SF	565 SF
E1048	EQUIP RM 1		1224.28.2.3		147 SF
E1049	CONTROL RM 1		1224.28.2.2		226 SF
E1050	CONTROL RM 2		1224.28.2.2		229 SF
E1051	CATH LAB 2		1224.28.2; 1224.28.2.1	400 SF	565 SF
E1052	EQUIP RM 2		1224.28.2.3		148 SF
E1051	HYPERBARIC THERAPY		1224.39.5; 1224.39.5.2.2		648 SF
E1051A	STAFF TOILET		1224.39.5.6		41 SF
E1051B	PATIENT TOILET / CHANGING		1224.39.5.7.2; 1224.39.5.7.3		71 SF
E1051C	HOUSEKEEPING		1224.39.5.5.7		24 SF
E1053	CORRIDOR				
E1054	PATIENT TOILET		1224.4.4.8		49 SF
E1055	CHANGING ROOM		1224.16.7.2		54 SF
E1056	NURSE STATION		1224.16.5.1;		162 SF
E1056A	PRE/POST PROC BAY 1		1224.28.2.6; 1224.16.2	80 SF	82 SF
E1056B	PRE/POST PROC BAY 2		1224.28.2.6; 1224.16.2	80 SF	83 SF
E1056C	PRE/POST PROC BAY 3		1224.28.2.6; 1224.16.2	80 SF	83 SF
E1056D	PRE/POST-PROC BAY 4		1224.28.2.6; 1224.16.2	80 SF	83 SF
E1056E	PREP WORK AREA				57 SF
E1056F	MEDICATION STATION		1224.16.5.3		63 SF
E1056G	POST-PROCEDURE BAY		1224.28.2.6; 1224.16.3		115 SF
E1056H	AIRBORN INFECTION ISOLATION EXAM/TREATMENT		1224.28.2.6; 1224.4.4.1.3		111 SF
E1057	STAFF TOILET		1224.16.6		45 SF
E1058	ALCOVE				
E1059	CORRIDOR		1224.4.7.2		
E1060	MALE STAFF CHANGING / LOCKERS		1224.28.2.5		138 SF
E1061	MALE STAFF TOILET / SHOWER				75 SF
E1062	FEMALE STAFF CHANGING / LOCKERS		1224.28.2.5		162 SF
E1071	FEMALE STAFF TOILET / SHOWER				75 SF
E1073	STAFF TOILET		1224.4.4.8		49 SF
E1074	IT ROOM		1224.5.2		41 SF
E1075	ELECTRICAL				79 SF
E1076	OFFICE		1224.21.1		98 SF
E1077	RECEPTION				98 SF
E1078	WAITING		1224.16.7.1; 1224.4.5		
A1048	HYPERBARIC PATIENT COUNSELING		1224.39.5.5.2; 1224.4.4.1	80 SF	
E1080	(E) PATIENT ADVOCACY				
E1107	HOLDING - GURNEY				

LIFE SAFETY GENERAL NOTES

1. ALL FIRE RATED PARTITIONS ARE EXISTING AND WITHIN THE CORE AREA, PATCH TO MAINTAIN RATING IF DISTURBED.
2. WOOD USED FOR BLOCKING, NAILERS, OR FRAMING IN FIRE RATED ASSEMBLIES SHALL BE FIRE RETARDANT TREATED. REFER TO SPECIFICATION SECTION 06 10 53
3. FOR EXIT LIGHTS AND EMERGENCY LIGHTING, SEE ELECTRICAL.
4. FOR FIRE DETECTION SYSTEM, SEE ELECTRICAL.
5. FOR FIRE ALARM SYSTEM, SEE ELECTRICAL.
6. WHERE FIRE EXTINGUISHER CABINETS OR OTHER EQUIPMENT IS RECESSED IN FIRE RATED PARTITIONS, MODIFY THE PARTITION AS REQUIRED TO PROVIDE A CONTINUOUS ENCLOSURE TO ENSURE UNINTERRUPTED FIRE RATING.
7. AT EXISTING FIRE RATED DOOR LOCATIONS FRAMES SHALL BE NEW AND DOORS SHALL BE LABELED FOR THE INTENDED USE OR EQUIVALENT.
8. NON-RATED SMOKE PARTITIONS SHALL BE CONSTRUCTED TO LIMIT THE TRANSFER OF SMOKE. PARTITIONS SHALL EXTEND FROM FLOOR SLAB TO UNDERSIDE THE DECK ABOVE. THE SPACE ADJACENT TO THE DECK AND OTHER SURFACES AND THE SPACES AROUND PENETRATING ITEMS SHALL BE CAULKED TO LIMIT THE FREE PASSAGE OF SMOKE.
9. HYPERBARIC CHAMBERS FOR HUMAN OCCUPANCY AND THEIR SUPPORTING SYSTEMS SHALL BE DESIGNED AND FABRICATED TO MEET ANSI/ ASME PVHO-1, SAFTRY STANDARD FOR PRESSURE VESSELS FOR HUMAN OCCUPANCY, BY PERSONNEL QUALIFIED TO FABRICATEVESSELS UNDER SUCH CODES PER 2021 NFPA 99, SECTION 14.2.2.1.

CODE ANALYIS LEGEND

REFER TO SHEET AE511 FOR DETAILS AND UL LISTINGS FOR CONSTRUCTION OF RATED PARTITIONS AND BARRIERS

- FP — 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- FB — 1 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 60 MINUTES FOR SHAFTS, EXIT STAIRWAYS AND EXIT PASSAGEWAY WALLS AND 45 FOR OTHER FIRE BARRIERS.
- FB — 2 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 90 MINUTES.
- SP — SMOKE PARTITION PER CBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- SB — 1HR SMOKE BARRIER PER CBC SECTION 709. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- EXISTING 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- TRAVEL DISTANCE
- AREA NAME 150 SF / 00 00 OCC. — ROOM (NET) AND AREA (GROSS) TAGS INDICATING SQUARE FOOTAGE / OCCUPANCY LOAD FACTOR, AND RESULTING OCCUPANCY BELOW
- 0 — INDICATES NUMBER OF OCCUPANTS EXITING ON EGRESS PATH
- 16' - 0" — ACCESSIBLE PATH OF TRAVEL TO BUILDING ENTRANCE
- PATH A 16' - 0" — EGRESS PATH WITH NAME, SEGMENT LENGTH, AND DIRECTION INDICATED
- 165 EXIT A — EXIT INDICATOR BASIC: WITH NAME OF EXIT AND TOTAL OCCUPANTS EXITING INDICATED
- 165 EXIT B; 0.2 X 165 = 33" MIN ACTUAL = 34.25" — EXIT INDICATOR ADVANCED: WITH NAME OF EXIT, TOTAL OCCUPANTS EXITING INDICATED, SIZE OF OPENING VS ACUTAL OPENING WIDTH
- I-2 OCCUPANCY — OCCUPANCY GROUP
- PATIENT CARE NON-SLEEPING SUITE
- EXISTING AREA TO REMAIN, AREA NOT IN SCOPE OF WORK
- 1 HOUR CEILING AREA

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	04/30/2025

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

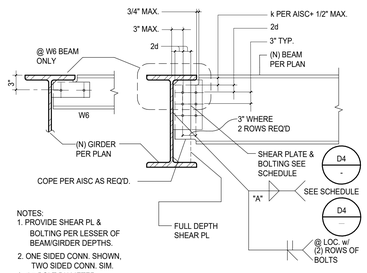
LIFE SAFETY PLAN

SHEET NUMBER

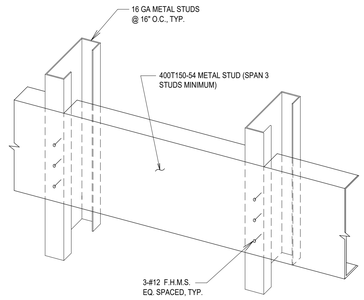
GI102

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5/8/2025 3:14:20 PM Autodesk Docs://047-10071-002_RUHS-TCI-1_Riverside_County_Health_Care_Dist_RUHS-2ND-CATH-LAB-ARCH.rvt

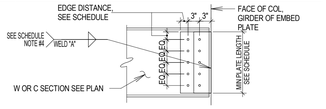


D2 (N) BEAM TO (N) BEAM SIMPLE CONNECTIONS
SCALE: 3/4" = 1'-0"



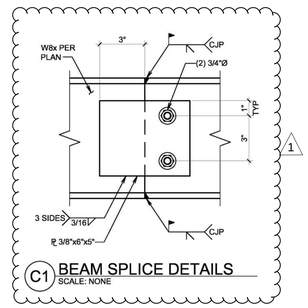
D3 METAL BACKING
SCALE: 1 1/2" = 1'-0"

NOMINAL BEAM/GIRDER DEPTH (1)	MINIMUM PLATE LENGTH (IN)	SHEAR PLATE THICKNESS (IN)	NUMBER OF VERTICAL ROWS OF BOLTS	NUMBER OF BOLTS PER ROW	BOLT DIAMETER (IN) (2)	EDGE DISTANCE (IN)	WELD "A" (2)	ASD DESIGN SHEAR STRENGTH (KIPS)	REMARKS
W8x	6	3/8	1	2	3/4	1 1/2	1/4	8	
W12x & C12	9	3/8	1	3	3/4	1 1/2	1/4	16	
W14x	11	3/8	1	3	1	1 1/2	1/4	29	
W16x	13	1/2	1	4	1	1 1/2	1/4	47	
W18x	15	1/2	1	4	1	2	1/4	47	
W21x	18	1/2	1	5	1 1/8	2	1/4	75	
W24x	20	1/2	1	6	1 1/8	2	1/4	91	
W27x	24	3/4	2	7	1 1/8	2	3/8	217	
W30x	26	1 1/2	2	6	1 1/2	2	1/2	298	

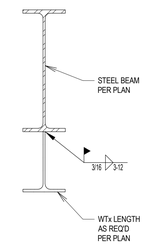


NOTES:
1. C BEAM CONNECTION SIMILAR TO W BEAM OF SAME DEPTH.
2. PROVIDE STANDARD AISC ROUND HOLES IN SHEAR PLATE.
3. PROVIDE THE LARGER OF WELD INDICATED & AWS MINIMUM.
4. WELD "A" SHALL BE FILLET WELD ON BOTH SIDES. WELD "A" CAN BE SUBSTITUTED WITH C.P. GROVE WELD WITH BACKING BAR REMOVED.
5. ALL BOLTS ARE A325 BOLTS PER GENERAL NOTES.
6. CONNECTION PLATE IS CONFORMING TO A992 OR A572 GRADE 50, Fy=50 KSI, Fu=65 KSI.

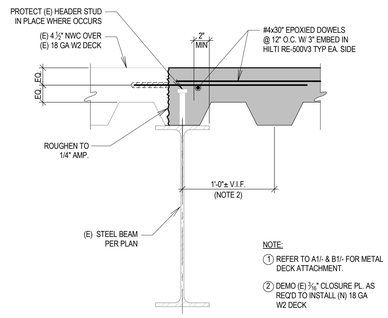
D4 SHEAR PLATE BOLTING SCHEDULE
SCALE: 3/4" = 1'-0"



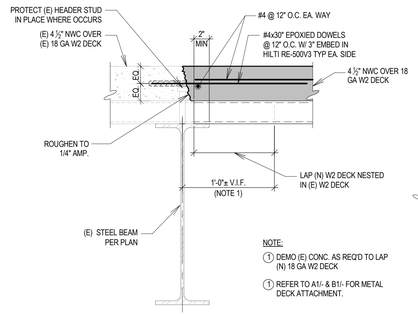
C1 BEAM SPLICE DETAILS
SCALE: NONE



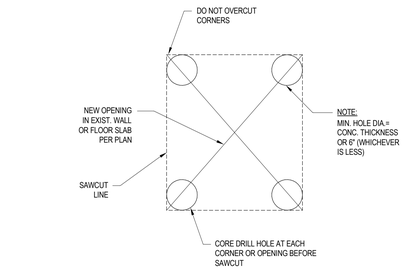
C2 STEEL BEAM STRENGTHENING
SCALE: 1 1/2" = 1'-0"



DECK PARALLEL TO BEAM

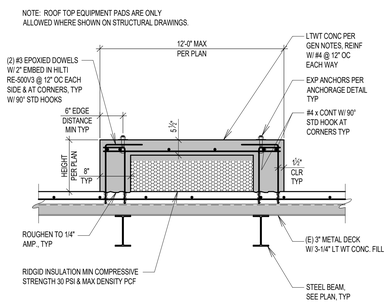


DECK PERPENDICULAR TO BEAM

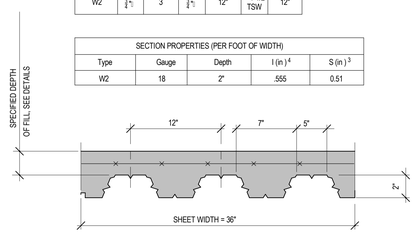


NOTE
1. REFER TO PLAN FOR ADDITIONAL FRAMING NOT SHOW.

C4 NEW OPENING IN EXIST. SLAB
SCALE: 3/4" = 1'-0"



C5 ROOF TOP EQUIOMENT PAD
SCALE: 3/4" = 1'-0"



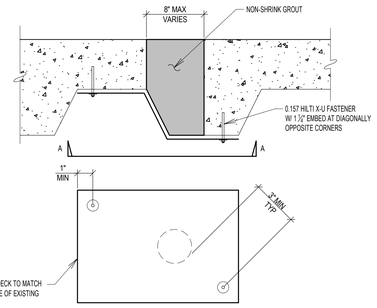
SECTION PROPERTIES (PER FOOT OF WIDTH)				
Type	Gauge	Depth	I (in.)⁴	S (in.)³
W2	18	2"	.555	0.51

VERCO DECK DEPTH AND SECTION TYPE	DECK WELDS, SEE A1					
	WELD A		WELD B		SIDELAP ATTACHMENT	
	SIZE AND TYPE	# PER SHEET	SIZE AND TYPE	SPAC-ING	TYPE	SPAC-ING
W2	¾ PAF	3	¾ PAF	12"	1-1/2" TSW	12"

TYPE W2 DECK

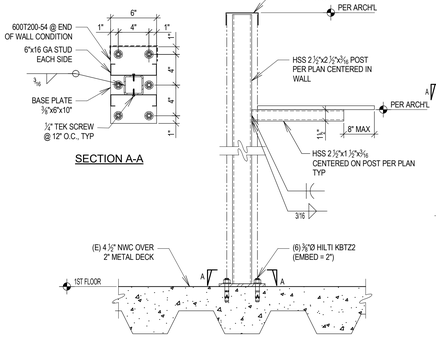
NOTE: OR EQUIVALENT BUTTON PUNCH

B1 METAL DECK PROPERTIES
SCALE: NTS



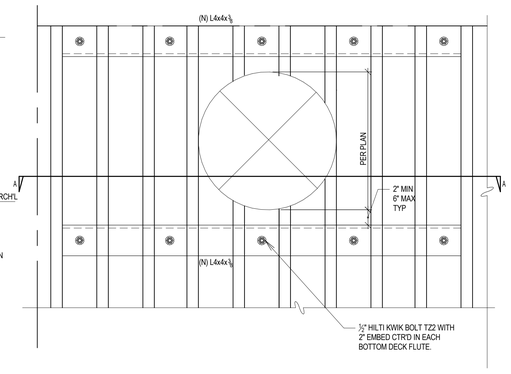
SECTION A-A

B2 THRU BOLT STRUT DETAIL
SCALE: 1 1/2" = 1'-0"



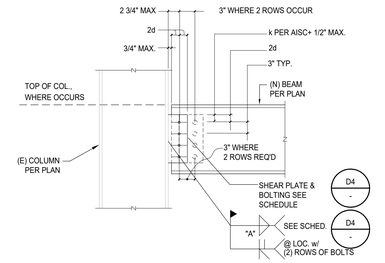
SECTION A-A

B3 FLOOR DECK INFILL
SCALE: 1 1/2" = 1'-0"

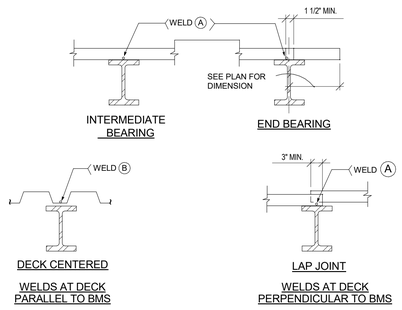


PLAN

A4 FLOOR / ROOF PENETRATION SLAB STRENGTHENING
SCALE: 1 1/2" = 1'-0"



A5 (N) BEAM TO (E) COLUMN FLANGE SIMPLE CONNECTIONS
SCALE: 3/4" = 1'-0"



B1 METAL DECK WELDING
SCALE: NTS

A2 INFIL OF SMALL SLAB OPENING
SCALE: 3" = 1'-0"

A3 PONY WALL SECTION
SCALE: NTS

Riverside University HEALTH SYSTEM

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CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER TRACY R. RICH RENEWAL 12/31/25 NO. 4831 STRUCTURAL STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/03/2024
1	ADDENDUM 01	04/30/2025

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	Issue Date

AGENCY APPLICATION NUMBER
S

AGENCY APPROVAL STAMP

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

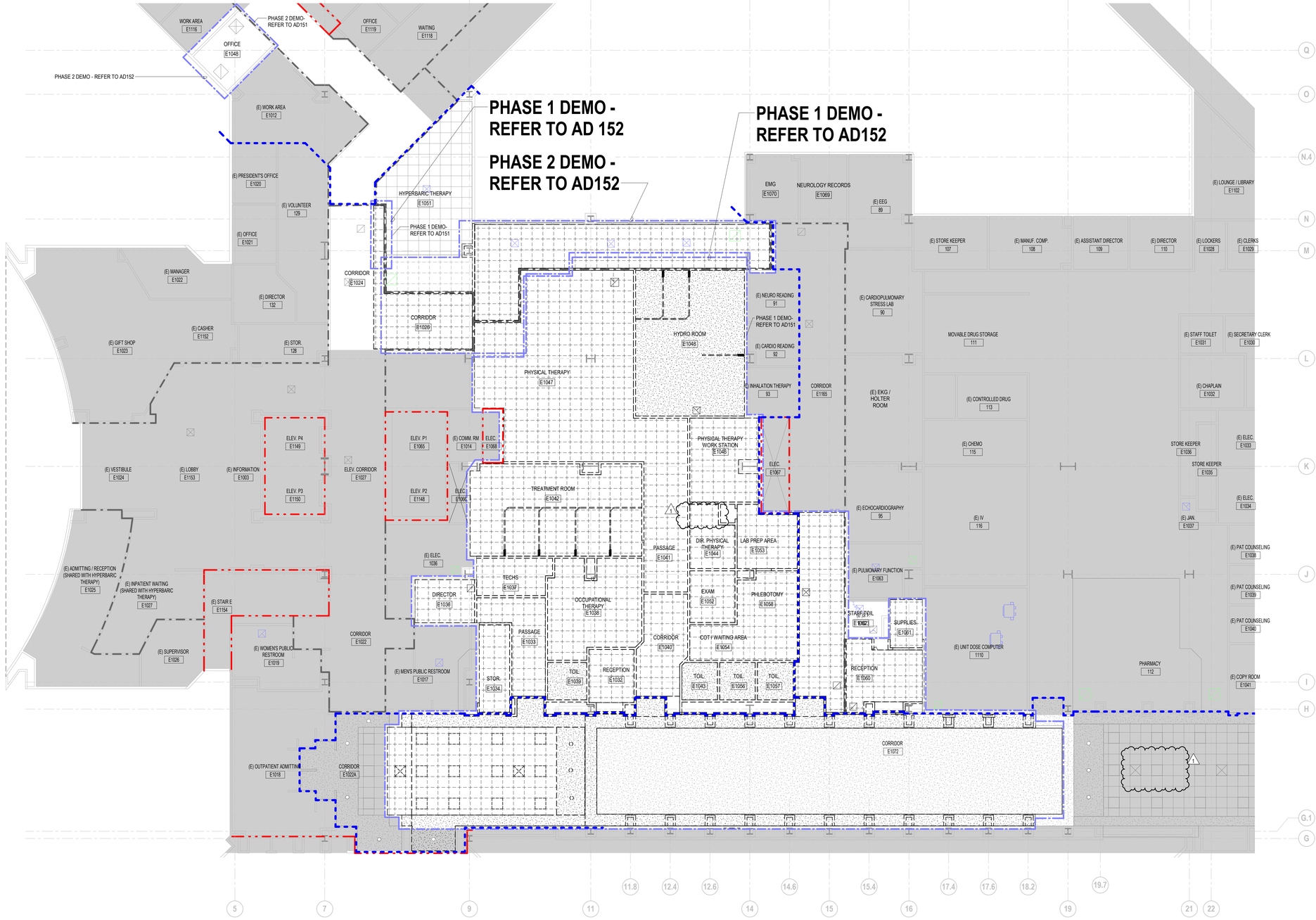
RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
TYPICAL DETAILS

SHEET NUMBER
S003

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A1 PARTIAL RELECTED CEILING PLAN - LEVEL 1 - DEMO

SCALE: 1/8" = 1'-0"

SHEET NOTES

THIS SHEET IS FOR OVERALL PHASE 1 & 2 DEMO PLAN. REFER TO AD152 FOR DETAIL SCOPE OF WORK PER PHASE.

KEY NOTES - CEILING PLAN

1

LEGEND

- REMOVE WALL
- REMOVE DOOR
- REMOVE AND SALVAGE ALL WATER CLOSETS AND LAVATORIES
- AREA NOT IN SCOPE OF WORK
- AREA IN SCOPE BUT NOT IN PHASE
- 2 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 90 MINUTES.
- 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- SMOKE PARTITION PER CBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- PHASING 1 OUTLINE
- PHASING 2 OUTLINE
- TEMPORARY CONSTRUCTION BARRIER, 1 HR FIRE PARTITION W/ 20 MIN PROTECTED OPENINGS. SEE DETAIL A1/AE511

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LICENSED ARCHITECT STEVEN A. HEARD C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	04/30/2025

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

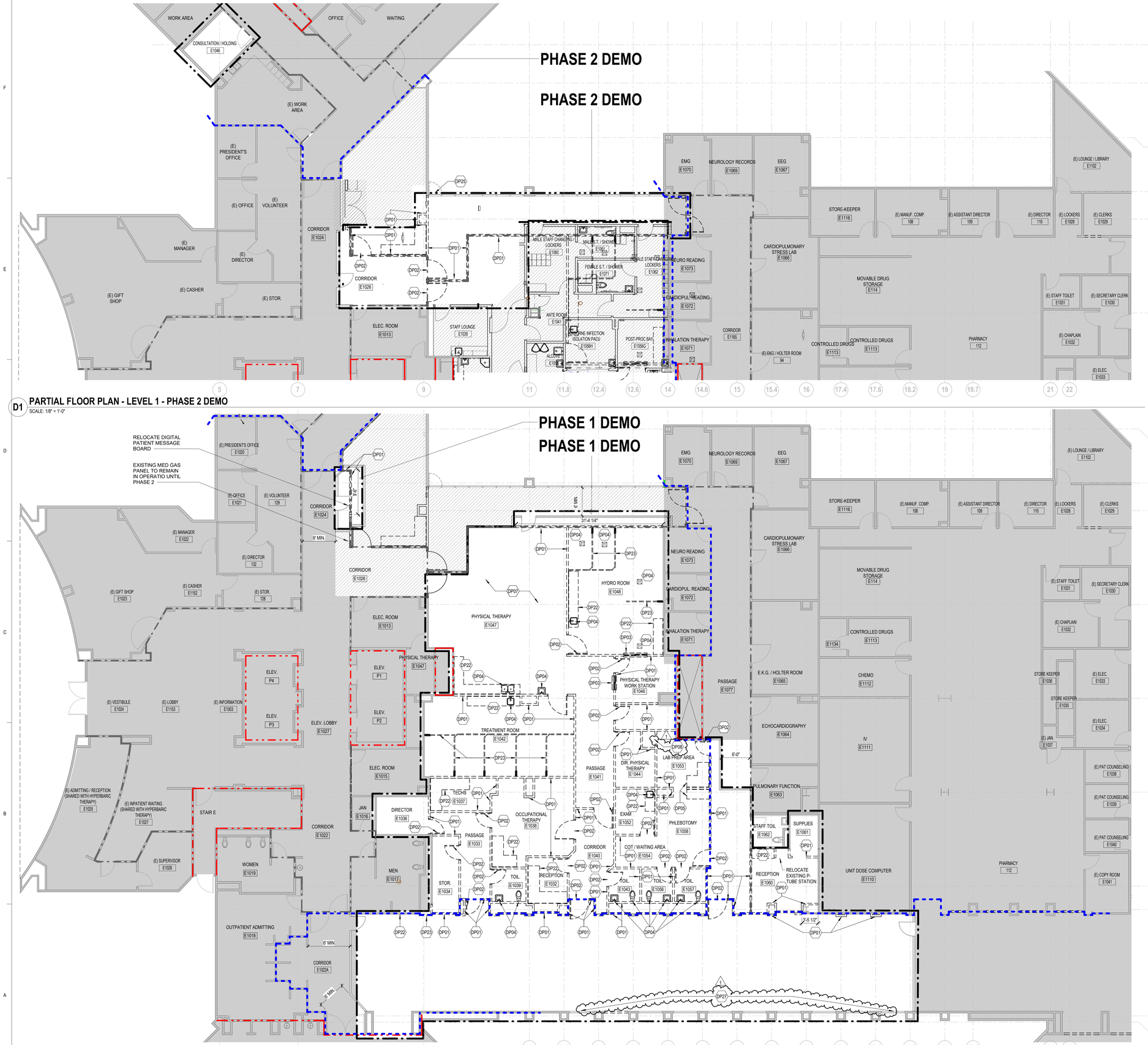
OVERALL REFLECTED CEILING PLAN - PHASE 1 & 2 - DEMO

SHEET NUMBER

AD121

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D1 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 2 DEMO
SCALE: 1/8" = 1'-0"

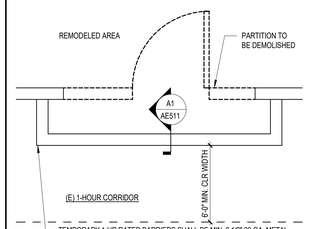
A1 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 1 DEMO
SCALE: 1/8" = 1'-0"

SHEET NOTES - DEMOLITION

1. DEMOLITION NOTES APPLY TO ALL DRAWING SHEETS.
2. REMOVE EXISTING FINISHES, ADHESIVES OR OTHER MATERIALS THAT WILL CONFLICT WITH NEW FINISHES SCHEDULED IN EXISTING OR NEWLY REMODELED SPACES. REMOVE OR MODIFY PARTITION, CEILNG, BASES AND FLOORING FINISH SUBSTRATES TO ACCOMODATE NEW FINISHES AS SCHEDULES
3. REMOVE EXISTING PARTITIONS, DOORS, FRAMES, SOFFITS, MILLWORK, FIXTURES, ETC. ON THE DEMOLITION PLAN SHOWN WITH DASHED LINES. TURN SALVAGEABLE ITEMS OVER TO OWNER AT A LOCATION OF THE OWNER'S CHOOSING.
4. REMOVE AND SALVAGE EXISTING EQUIPMENT AND WALL MOUNTED ACCESSORIES FOR RELOCATION BY OWNER.
5. REMOVE GENERAL, MECHANICAL AND ELECTRICAL MATERIAL NOT NECESSARILY SHOWN, BUT REQUIRED TO BE REMOVED TO COMPLETE WORK.
6. CUTTING AND PATCHING REQUIRED FOR NEW MECHANICAL AND ELECTRICAL WORK IN EXISTING SPACES SHALL BE BY RESPECTIVE CONTRACTORS.
7. CONTRACTOR TO VERIFY WITH OWNER THAT HAZARDOUS MATERIAL SURVEY HAS BEEN COMPLETED FOR MATERIALS TO BE REMOVED/DISTURBED.
8. THE CONTRACTOR SHALL VERIFY EXISTIN FINISHES AND CONDITION BEFORE CONSTRUCTION BEGINS.
9. CONTRACTOR SHALL COORDINATE DEMOLITION WORK PHASING AND SEQUENCING WITH OWNER PRIOR TO START OF CONSTRUCTION.
10. ERECT DUST-PROOF PARTITIONS AS REQUIRED BY OWNER AND FIRE MARSHALL TO PROTECT ADJACENT AREA DURING CONSTRUCIOTN.
11. MAINTAIN REQUIRED EXISTS AND MEANS OF EGRESS DURING CONSTRUCTION.
12. PROTECT MECHANICAL AND ELECTRIAL SERVICES AS REQUIRED TO REMAIN IN OPERATION.
13. REMOVE CEILING SYSTEMS AS REQUIRED TO ACCODDOMATE MECHANICAL AND ELECTRICAL WORK. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR APPROXIMATE LOCATIONS. SALVAGE TILES AND GRID FOR REINSTALLATION WHEN COMPETE UNLESS NOTED OTHERWISE.
14. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR SCOPE AND EXTENT OF MECHANICAL AND ELECTRICAL WORK.
15. DURING THE DEMOLITION PROCESS THERE MAY BE INSTANCES WHERE THE REMOVAL OR ABANDONMENT OF A FIXTURE, DUCT, CONDUIT OR OTHER PIECE OF EQUIPMENT MAY LEAVE AN OPENING IN A REQUIRED FIRE RESISTIVE ASSEMBLY. AS PARET OF THE DEMOKITION AND REMODELING PROCESS A FIRE-RESISTIVE "MEMBER" OR "THROUGH" PENETRATION (AND/OR OPEN JOINT) RESULTING FORM SUCH DEMOLITION WORK SHALL BE FIRESTOPPED OR SEALED IN ACCORDANCE WITH CBC FOR THE NECESSARY RATING PROTECTION. PROVISIONS FOR REQUIRED FIRESTOP CONDITIONS SHALL BE INCLUDED AS PART OF THIS SECTION.
16. PATCH "EXISTING TO REMIAN" BUILDING COMPONENTS IF DAMAGED DURING DEMOLITION. MATCH AJDACENT MATERIALS AND FINISHES.
17. COORDINATE WITH THE OWNER FOR THE STORAGE AND RELOCATION REQUIREMENTS OF EXISTING AND SALVAGED ITEMS.
18. VERIFY EXISTING SPRINKLERS SYSTEM WITH SPRINKLER CONTRACTOR PRIOR TO DEMOLITION. SPRINKLER CONTRACTOR TO MODIFY AND MAINTAIN SYSTEM CODE REQUIREMENTS THROUGHOUT THE PROJECT.
19. CONTRACTOR SHALL REMOVE/MODIFY EXISTING GYPSUM BOARD AND ACT CEILINGS AS NECESSARY FOR NEW CEILING LAYOUT AND MECHAICAL DUCTWORK. SEE CEILING PLAN FOR NEW CEILING LAYOUT.
20. CONTRACTOR SHALL REMOVE OWNER'S EXISTING WALL MOUNTED ITEMS AND TURN OVER TO OVER'S STOCK IN DEMOLITION AREAS.
21. CONTRACTOR TO EVALUATE MOISTURE MITIGATION AT SLAB AFTER FLOORING DEMOLITION. VERIFY FLOORING FINISHES INSTALLATION AND WARRANTY REQUIREMENTS FROM MANUFACTURER.
22. USE AND PATHWAY OF TEMPORARY CONSTRUCTION WALLS AND TEMP DUST BARRIERS SHALL MEET THE REQUIREMENTS OF THE 2022 CFC, SECTION 3305.9 AND COMPLY WITH THE HOSPITAL INFECTIOUS CONTROL REQUIREMENTS. "TEMPORARY DUST BARRIER" MATERIAL SHALL SATISFY ONE OF THE FOLLOWING: 1. NONCOMBUSTIBLE MATERIALS. 2. MATERIALS THAT EXHIBIT A FLAME SPREAD INDEX NOT EXCEEDING 25 WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723. 3. MATERIALS EXHIBITING A PEAK HEAT RELEASE RATE NOT EXCEEDING 300 KW/M2 WHEN TESTED IN ACCORDANCE WITH ASTM E1354 AT AN INCIDENT HEAT FLUX OF 50 KW/M2 IN THE HORIZONTAL ORIENTATION ON SPECIMENS AT THE THICKNESS INTENDED FOR USE. PLEASE NOTE: IF THE MATERIAL IS TO COMPLY WITH ITEM #2 IDENTIFIED ABOVE, PLEASE BE SURE THE MATERIAL HAS A CLASS A FLAME SPREAD AND/OR DOES NOT EXCEED A FLAME SPREAD INDEX OF 25.

KEY NOTES - DEMOLITION

DP01	DEMOLISH EXISTING WALL IN ITS ENTIRETY
DP02	DEMOLISH EXISTING DOOR AND FRAME
DP03	DEMOLISH EXISTING WINDOW AND FRAME
DP04	DEMOLISH EXISTING PLUMBING FIXTURE IN ITS ENTIRETY, CAP PLUMBING AS REQUIRED
DP05	DEMOLISH EXISTING CASEWORK
DP07	DEMOLISH EXISTING FLOORING IN ITS ENTIRETY. PREPARE SUBSTRATE TO ACCEPT NEW FINISH
DP08	REMOVE EXISTING DUMBWAITER
DP22	REMOVE WALL ATTACHMENT AND RETURN TO OWNER
DP23	REMOVE BULKHEAD AND LIGHT FIXTURE ABOVE, TYP.
DP25	DEMOLITION AND RECONSTRUCTION WILL OCCUR WITHIN ONE SINGLE 8-HOUR SHIFT, SUBJECT TO THE PRIOR REVIEW AND APPROVAL OF THIS APPROACH BY THE OSHPD FIELD FIRE LIFE SAFETY OFFICER. WORK MAY NOT PROCEED UNTIL THAT APPROVAL HAS BEEN OBTAINED. IN THE EVENT THE WORK CANNOT BE COMPLETED IN THAT SINGLE SHIFT, A TEMPORARY BARRIER SHALL BE PROVIDED TO PROVIDE WEATHER PROTECTION PER 2022 CBC, SECTION 1705.2.
DP27	EXISTING EXTERIOR GLASS PANES TO BE REPLACED WITH SPANDREL GLASS, PER PLAN AND PER WINDOW SCHEDULE ON AE601. EXISTING WINDOW FRAME SHALL BE PROTECTED IN PLACE



TEMPORARY 1-HR RATED BARRIERS SHALL BE MIN. 2 1/2" 20 GA. METAL STUDS WITH TYPE X GYP. BD. BOTH SIDES. BARRIERS SHALL EXTEND TO UNDERSIDE OF RATED FLOOR/ROOF DECK OR RATED CORRIDOR TUNNEL OR RETURNED HORRIZONTALLY BACK TO THE RATED WALL.

DOORS AND HOLLOW METAL FRAME SHALL BE RATED AS REQ'D FOR THE PARTITIONS/BARRIERS BEING REMODELED. DOORS WILL HAVE MIN. 20 MIN H.M. FRAMES/DOORS.

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- PHASING 1 OUTLINE
- PHASING 2 OUTLINE
- TEMPORARY CONSTRUCTION BARRIER, 1 HR FIRE PARTITION W/ 20 MIN PROTECTED OPENINGS. SEE DETAIL A1/AE511

Riverside University HEALTH SYSTEM

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CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	04/30/2025

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
PHASING PLAN - LEVEL 1 - FLOOR PLAN - DEMO

SHEET NUMBER
AD151

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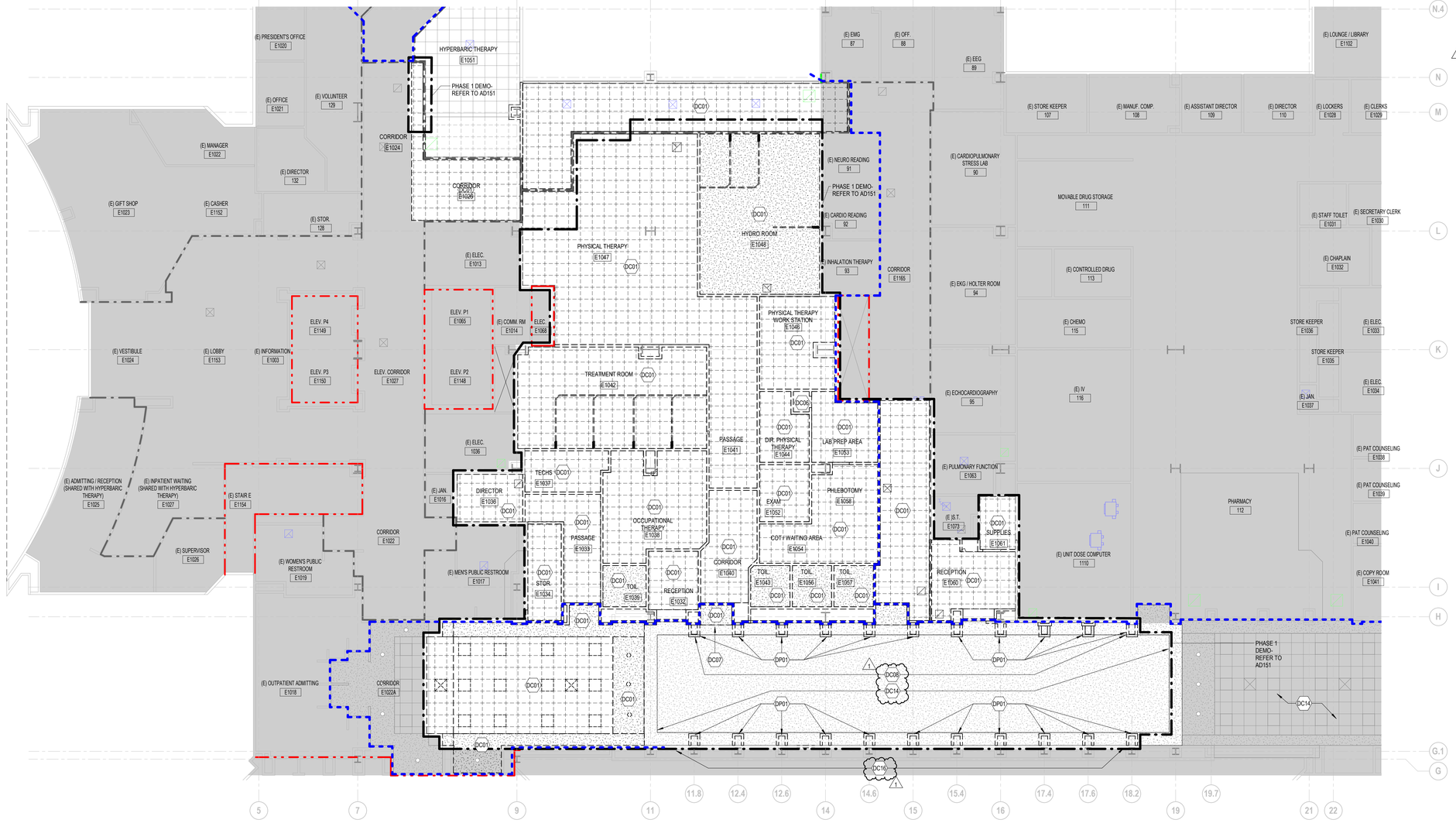
D1 PARTIAL RELECTED CEILING PLAN - LEVEL 1 - PHASE 2 - DEMO

SCALE: 1/8" = 1'-0"



PARTIAL RELECTED CEILING PLAN - LEVEL 1 - PHASE 1 - DEMO

SCALE: 1/8" = 1'-0"



SHEET NOTES - DEMOLITION

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KEY NOTES - DEMOLITION

DC01 DEMOLISH EXISTING CEILING, DEVICES, DUCTWORK (SERVING AREA OF WORK), MEDICAL GAS OUTLETS (WHERE OCCURS), AND HVAC REGISTERS. CAP ALL UTILITIES AS REQUIRED DURING CONSTRUCTION. PROTECT EXISTING SPRINKLER PIPING IN PLACE

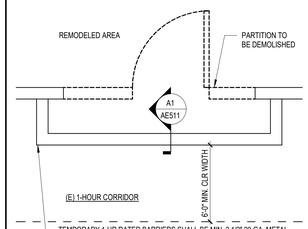
DC06 REMOVE EXISTING DUMBWAITER

DC07 PROTECT IN PLACE EXISTING DOUBLE-HEIGHT VOLUMN WALL. LOCALLY DEMO ONLY AS NEEDED FOR INSTALLATION OF NEW WORK.

DC08 CAREFULLY REMOVE EXISTING MURAL PANELS AND COORDINATE WITH OWNER FOR RELEASE TO STORE OR RELOCATION

DC14 EXISTING VAULTED CEILING TO REMAIN WHERE NOT IMPACED BY NEW CONSTRUCTION. LOCALLY DEMO CEILING ONLY WHERE NEEDED FOR INSTALLATION OF NEW WORK. V.I.F.

DC16 EXISTING GLAZING TO BE REPLACED WITH SPANDREL GLASS, PER PLAN AND PER WINDOW SCHEDULE ON AE601. PROTECT EXISTING WINDOW FRAMES IN PLACE



TEMPORARY 1-HR RATED BARRIERS SHALL BE MIN. 2 1/2" 20 GA. METAL STUDS WITH TYPE X GYP. BD. BOTH SIDES. BARRIERS SHALL EXTEND TO UNDERSIDE OF RATED FLOOR/ROOF DECK OR RATED CORRIDOR TUNNEL OR RETURNED HORRIZONTALLY BACK TO THE RATED WALL.

DOORS AND HOLLOW METAL FRAME SHALL BE RATED AS REQ'D FOR THE PARTITIONS/BARRIERS BEING REMODELED. DOORS WILL HAVE MIN. 20 MIN H.M. FRAMES/DOORS.

LEGEND

- REMOVE WALL
- REMOVE DOOR
- REMOVE AND SALVAGE ALL WATER CLOSETS AND LAVATORIES
- AREA NOT IN SCOPE OF WORK
- AREA IN SCOPE BUT NOT IN PHASE
- 2 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 90 MINUTES.
- 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- SMOKE PARTITION PER CBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- PHASING 1 OUTLINE
- PHASING 2 OUTLINE
- TEMPORARY CONSTRUCTION BARRIER, 1 HR FIRE PARTITION W/ 20 MIN PROTECTED OPENINGS. SEE DETAIL A1/AE511

A1 PARTIAL RELECTED CEILING PLAN - LEVEL 1 - PHASE 1 - DEMO

SCALE: 1/8" = 1'-0"

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. KHEIRI C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	04/30/2025

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

PHASING PLAN - LEVEL 1 - REFLECTED CEILING PLAN - DEMO

SHEET NUMBER

AD152

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PHASE 2 REMODEL - REFER TO D1/AE152

PHASE 1 REMODEL - REFER TO A1/AE152

PHASE 2 REMODEL - REFER TO D1/AE152

PHASE 1 REMODEL - REFER TO A1/AE152

OPEN BELOW

NO STORAGE IN CORRIDOR E1059

NO STORAGE IN CORRIDOR E1059B

NO STORAGE IN CORRIDOR E1040

OPEN BELOW

OUTPATIENT DIAGNOSTIC STUDIES

PHARMACY

CONSULTATION / HOLDING E1046; OFFICE E1119; WAITING E1118; (E) WORK AREA E1012; (E) PRESIDENT'S OFFICE E1020; (E) OFFICE E1021; (E) VOLUNTEER 129; (E) MANAGER E1022; (E) DIRECTOR 132; (E) CASHIER E1152; (E) GIFT SHOP E1023; (E) STOR. 128; (E) VESTIBULE E1024; (E) LOBBY E1153; (E) INFORMATION E1003; ELEV. P4 E1149; ELEV. P3 E1150; ELEV. P2 E1148; ELEV. P1; ELEV. CORRIDOR E1027; (E) ADMITTING / RECEPTION (SHARED WITH HYPERBARIC THERAPY) E1025; (E) INPATIENT WAITING (SHARED WITH HYPERBARIC THERAPY) E1027; (E) STAIR E E1154; (E) SUPERVISOR E1026; (E) WOMEN'S PUBLIC RESTROOM E1019; (E) MEN'S PUBLIC RESTROOM E1017; (E) JAN. E1016; (E) ELEC. E1036; (E) OUTPATIENT ADMITTING E1018; CORRIDOR E1022; CORRIDOR E1022A; CEILING MTD HUMIDIFIER (PROVIDE ACCESS PANEL); HYPERBARIC THERAPY E1051; HKPG E1051C; S.T. E1051B; P.T. / CHANGING E1051A; LOCKER; ADA BENCH; CORRIDOR E1024; 1051; FE; CORRIDOR E1026; CORRIDOR E1059; 1059A; B1 AE401; STAFF LOUNGE E1039; (E) ELEC. E1013; HSKG E1038; (E) COMM. RM E1014; SOILED HOLDING E1037; CLEAN SUPPLY E1035; STORAGE, EQUIPMENT E1034; DOOR STAYS IN OPEN POSITION; CORRIDOR E1040; ALCOVE E1043; ALCOVE E1042; PRE/POST-PROC BAY 4 E1056D; PRE/POST-PROC BAY 3 E1056C; PRE/POST-PROC BAY 2 E1056B; PRE/POST-PROC BAY 1 E1056A; SOFFIT ABOVE; SCRUB SINK E1045; SEMI-RESTRICTED CORRIDOR E1046; CEILING LINE ABOVE; A1 AE403; 1SGL; MALE STAFF CHANGING LOCKERS E1060; MALE S.T. / SHOWER E1061; FEMALE S.T. / SHOWER E1071; FEMALE STAFF CHANGING LOCKERS E1062; 1060A; 1060B; 1041C; HUMIDIFIER (WALL MTD); 1041B; MATE ROOM E1041; 1041A; ALCOVE E1058; AIRBORNE INFECTION ISOLATION PACU E1056H; POST-PROC BAY E1056G; P44; 1060C; 1060; 1057; ST. TOIL. E1057; P35; S2O; S2Q; NURSE STATION E1056; CORRIDOR E1053; MEDICATION STATION E1056F; P.T. TOIL. E1054; CHANGING E1055; ADA; 1054; 1052; 1053; 1071C; P.T. E1056E; PREP WORK E1056E; S2P; S2R; 1056; 1071; 1059B; S6A; 1056C; 1056; 1059; 1SGL; 1SGA; 1SGB; 1SGC; 1SGD; 1SGE; 1SGF; 1SGG; 1SGH; 1SGJ; 1SGK; 1SGM; 1SGN; 1SGP; 1SGQ; 1SGR; 1SGS; 1SGT; 1SGU; 1SGV; 1SGW; 1SGX; 1SGY; 1SGZ; 1SHA; 1SHB; 1SHC; 1SHD; 1SHE; 1SHF; 1SHG; 1SHH; 1SHJ; 1SHK; 1SHL; 1SHM; 1SHN; 1SHP; 1SHQ; 1SHR; 1SHS; 1SHT; 1SHU; 1SHV; 1SHW; 1SHX; 1SHY; 1SHZ; 1SJA; 1SJB; 1SJC; 1SJD; 1SJE; 1SJF; 1SJG; 1SJH; 1SJJ; 1SJK; 1SJL; 1SJM; 1SJN; 1SJP; 1SJQ; 1SJR; 1SJS; 1SJT; 1SJU; 1SJV; 1SJW; 1SJX; 1SJY; 1SJZ; 1SKA; 1SKB; 1SKC; 1SKD; 1SKE; 1SKF; 1SKG; 1SKH; 1SKJ; 1SKK; 1SKL; 1SKM; 1SKN; 1SKP; 1SKQ; 1SKR; 1SKS; 1SKT; 1SKU; 1SKV; 1SKW; 1SKX; 1SKY; 1SKZ; 1SLA; 1SLB; 1SLC; 1SLD; 1SLE; 1SLF; 1SLG; 1SLH; 1SLJ; 1SLK; 1SLL; 1SLM; 1SLN; 1SLP; 1SLQ; 1SLR; 1SLS; 1SLT; 1SLU; 1SLV; 1SLW; 1SLX; 1SLY; 1SLZ; 1SMA; 1SMB; 1SMC; 1SMD; 1SME; 1SMF; 1SMG; 1SMH; 1SMJ; 1SMK; 1SML; 1SMM; 1SMN; 1SMP; 1SMQ; 1SMR; 1SMS; 1SMT; 1SMU; 1SMV; 1SMW; 1SMX; 1SMY; 1SMZ; 1SNA; 1SNB; 1SNC; 1SND; 1SNE; 1SNF; 1SNG; 1SNH; 1SNJ; 1SNK; 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1TSH; 1TSJ; 1TSK; 1TSL; 1TSM; 1TSN; 1TSP; 1TSQ; 1TSR; 1TSS; 1TST; 1TSU; 1TSV; 1TSW; 1TSX; 1TSY; 1TSZ; 1TTA; 1TTB; 1TTC; 1TTD; 1TTE; 1TTF; 1TTG; 1TTH; 1TTJ; 1TTK; 1TTL; 1TTM; 1TTN; 1TTP; 1TTQ; 1TTR; 1TTS; 1TTT; 1TTU; 1TTV; 1TTW; 1TTX; 1TTY; 1TTZ; 1TUA; 1TUB; 1TUC; 1TUD; 1TUE; 1TUF; 1TUG; 1TUH; 1TUJ; 1TUK; 1TUL; 1TUM; 1TUN; 1TUP; 1TUQ; 1TUR; 1TUS; 1TUT; 1TUU; 1TUV; 1TUW; 1TUX; 1TUY; 1TUZ; 1TVA; 1TVB; 1TVC; 1TVD; 1TVE; 1TVF; 1TVG; 1TVH; 1TVJ; 1TVK; 1TVL; 1TVM; 1TVN; 1TVP; 1TVQ; 1TVR; 1TVS; 1TVT; 1TVU; 1TVV; 1TVW; 1TVX; 1TVY; 1TVZ; 1TWA; 1TWB; 1TWC; 1TWD; 1TWE; 1TWF; 1TWG; 1TWH; 1TWJ; 1TWK; 1TWL; 1TWM; 1TWN; 1TWP; 1TWQ; 1TWR; 1TWS; 1TWT; 1TWU; 1TWV; 1TWW; 1TWX; 1TWY; 1TWZ; 1TXA; 1TXB; 1TXC; 1TXD; 1TXE; 1TXF; 1TXG; 1TXH; 1TXJ; 1TXK; 1TXL; 1TXM; 1TXN; 1TXP; 1TXQ; 1TXR; 1TXS; 1TXT; 1TXU; 1TXV; 1TXW; 1TXX; 1TXY; 1TXZ; 1TYA; 1TYB; 1TYC; 1TYD; 1TYE; 1TYF; 1TYG; 1TYH; 1TYJ; 1TYK; 1TYL; 1TYM; 1TYN; 1TYP; 1TYQ; 1TYR; 1TYS; 1TYT; 1TYU; 1TYV; 1TYW; 1TYX; 1TYY; 1TYZ; 1TZA; 1TZB; 1TZC; 1TZD; 1TZE; 1TZF; 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1UGF; 1UGG; 1UGH; 1UGJ; 1UGK; 1UGL; 1UGM; 1UGN; 1UGP; 1UGQ; 1UGR; 1UGS; 1UGT; 1UGU; 1UGV; 1UGW; 1UGX; 1UGY; 1UGZ; 1UHA; 1UHB; 1UHC; 1UHD; 1UHE; 1UHF; 1UHG; 1UHH; 1UHJ; 1UHK; 1UHL; 1UHM; 1UHN; 1UHP; 1UHQ; 1UHR; 1UHS; 1UHT; 1UHU; 1UHV; 1UHW; 1UHX; 1UHY; 1UHZ; 1UJA; 1UJB; 1UJC; 1UJD; 1UJE; 1UJF; 1UJG; 1UJH; 1UJJ; 1UJK; 1UJL; 1UJM; 1UJN; 1UJP; 1UJQ; 1UJR; 1UJS; 1UJT; 1UJU; 1UJV; 1UJW; 1UJX; 1UJY; 1UJZ; 1UKA; 1UKB; 1UKC; 1UKD; 1UKE; 1UKF; 1UKG; 1UKH; 1UKJ; 1UKK; 1UKL; 1UKM; 1UKN; 1UKP; 1UKQ; 1UKR; 1UKS; 1UKT; 1UKU; 1UKV; 1UKW; 1UKX; 1UKY; 1UKZ; 1ULA; 1ULB; 1ULC; 1ULD; 1ULE; 1ULF; 1ULG; 1ULH; 1ULJ; 1ULK; 1ULL; 1ULM; 1ULN; 1ULP; 1ULQ; 1ULR; 1ULS; 1ULT; 1ULU; 1ULV; 1ULW; 1ULX; 1ULY; 1ULZ; 1UMA; 1UMB; 1UMC; 1UMD; 1UME; 1UMF; 1UMG; 1UMH; 1UMJ; 1UMK; 1UML; 1UMM; 1UMN; 1UMP; 1UMQ; 1UMR; 1UMS; 1UMT; 1UMU; 1UMV; 1UMW; 1UMX; 1UMY; 1UMZ; 1UNA; 1UNB; 1UNC; 1UND; 1UNE; 1UNF; 1UNG; 1UNH; 1UNJ; 1UNK; 1UNL; 1UNM; 1UNN; 1UNP; 1UNQ; 1UNR; 1UNS; 1UNT; 1UNU; 1UNV; 1UNW; 1UNX; 1UNY; 1UNZ; 1UPA; 1UPB; 1UPC; 1UPD; 1UPE; 1UPF; 1UPG; 1UPH; 1UPJ; 1UPK; 1UPL; 1UPM; 1UPN; 1UPP; 1UPQ; 1UPR; 1UPS; 1UPT; 1UPU; 1UPV; 1UPW; 1UPX; 1UPY; 1UPZ; 1UQA; 1UQB; 1UQC; 1UQD; 1UQE; 1UQF; 1UQG; 1UQH; 1UQJ; 1UQK; 1UQL; 1UQM; 1UQN; 1UQP; 1UQQ; 1UQR; 1UQS; 1UQT; 1UQU; 1UQV; 1UQW; 1UQX; 1UQY; 1UQZ; 1URA; 1URB; 1URC; 1URD; 1URE; 1URF; 1URG; 1URH; 1URJ; 1URK; 1URL; 1URM; 1URN; 1URP; 1URQ; 1URR; 1URS; 1URT; 1URU; 1URV; 1URW; 1URX; 1URY; 1URZ; 1USA; 1USB; 1USC; 1USD; 1USE; 1USF; 1USG; 1USH; 1USJ; 1USK; 1USL; 1USM; 1USN; 1USP; 1USQ; 1USR; 1USS; 1UST; 1USU; 1USV; 1USW; 1USX; 1USY; 1USZ; 1UTA; 1UTB; 1UTC; 1UTD; 1UTE; 1UTF; 1UTG; 1UTH; 1UTJ; 1UTK; 1UTL; 1UTM; 1UTN; 1UTP; 1UTQ; 1UTR; 1UTS; 1UTT; 1UTU; 1UTV; 1UTW; 1UTX; 1UTY; 1UTZ; 1UUA; 1UUB; 1UUC; 1UUD; 1UUE; 1UUF; 1UUG; 1UUH; 1UUJ; 1UUK; 1UUL; 1UUM; 1UUN; 1UUP; 1UUQ; 1UUR; 1UUS; 1UUT; 1UUU; 1UUV; 1UUW; 1UUX; 1UUY; 1UUZ; 1UVA; 1UVB; 1UVC; 1UVD; 1UVE; 1UVF; 1UVG; 1UVH; 1UVJ; 1UVK; 1UVL; 1UVM; 1UVN; 1UVP; 1UVQ; 1UVR; 1UVS; 1UVT; 1UVU; 1UVV; 1UVW; 1UVX; 1UVY; 1UVZ; 1UWA; 1UWB; 1UWC; 1UWD; 1UWE; 1UWF; 1UWG; 1UWH; 1UWJ; 1UWK; 1UWL; 1UWM; 1UWN; 1UWP; 1UWQ; 1UWR; 1UWS; 1UWT; 1UWU; 1UWV; 1UWW; 1UWX; 1UWY; 1UWZ; 1UXA; 1UXB; 1UXC; 1UXD; 1UXE; 1UXF; 1UXG; 1UXH; 1UXJ; 1UXK; 1UXL; 1UXM; 1UXN; 1UXP; 1UXQ; 1UXR; 1UXS; 1UXT; 1UXU; 1UXV; 1UXW; 1UXX; 1UXY; 1UXZ; 1UYA; 1UYB; 1UYC; 1UYD; 1UYE; 1UYF; 1UYG; 1UYH; 1UYJ; 1UYK; 1UYL; 1UYM; 1UYN; 1UYP; 1UYQ; 1UYR; 1UYS; 1UYT; 1UYU; 1UYV; 1UYW; 1UYX; 1UYY; 1UYZ; 1UZA; 1UZB; 1UZC; 1UZD; 1UZE; 1UZF; 1UZG; 1UZH; 1UZJ; 1UZK; 1UZL; 1UZM; 1UZN; 1UZP; 1UZQ; 1UZR; 1UZS; 1UZT; 1UZU; 1UZV; 1UZW; 1UZX; 1UZY; 1UZZ; 1VAA; 1VAB; 1VAC; 1VAD; 1VAE; 1VAF; 1VAG; 1VAH; 1VAJ; 1VAK; 1VAL; 1VAM; 1VAN; 1VAP; 1VAQ; 1VAR; 1VAS; 1VAT; 1VAU; 1VAV; 1VAW; 1VAX; 1VAY; 1VAZ; 1VBA; 1VBB; 1VBC; 1VBD; 1VBE; 1VBF; 1VBG; 1VBH; 1VBJ; 1VBK; 1VBL; 1VBM; 1VBN; 1VBP; 1VBQ; 1VBR; 1VBS; 1VBT; 1VBU; 1VBV; 1VBW; 1VBX; 1VBY; 1VBZ; 1VCA; 1VCB; 1VCC; 1VCD; 1VCE; 1VCF; 1VCG; 1VCH; 1VCJ; 1VCK; 1VCL; 1VCM; 1VCN; 1VCP; 1VCQ; 1VCR; 1VCS; 1VCT; 1VCU; 1VCV; 1VCW; 1VCX; 1VCY; 1VCZ; 1VDA; 1VDB; 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1VTA; 1VTB; 1VTC; 1VTD; 1VTE; 1VTF; 1VTG; 1VTH; 1VTJ; 1VTK; 1VTL; 1VTM; 1VTN; 1VTP; 1VTQ; 1VTR; 1VTS; 1VTT; 1VTU; 1VTV; 1VTW; 1VTX; 1VTY; 1VTZ; 1VUA; 1VUB; 1VUC; 1VUD; 1VUE; 1VUF; 1VUG; 1VUH; 1VUJ; 1VUK; 1VUL; 1VUM; 1VUN; 1VUP; 1VUQ; 1VUR; 1VUS; 1VUT; 1VUU; 1VUV; 1VUW; 1VUX; 1VUY; 1VUZ; 1VVA; 1VVB; 1VVC; 1VVD; 1VVE; 1VVF; 1VVG; 1VVH; 1VVJ; 1VVK; 1VVL; 1VVM; 1VVN; 1VVP; 1VVQ; 1VVR; 1VVS; 1VVT; 1VVU; 1VVV; 1VVW; 1VVX; 1VVY; 1VVZ; 1VWA; 1VWB; 1VWC; 1VWD; 1VWE; 1VWF; 1VWG; 1VWH; 1VWJ; 1VWK; 1VWL; 1VWM; 1VWN; 1VWP; 1VWQ; 1VWR; 1VWS; 1VWT; 1VWU; 1VWV; 1VWW; 1VWX; 1VWY; 1VWZ; 1VXA; 1VXB; 1VXC; 1VXD; 1VXE; 1VXF; 1VXG; 1VXH; 1VXJ; 1VXK; 1VXL; 1VXM; 1VXN; 1VXP; 1VXQ; 1VXR; 1VXS; 1VXT; 1VXU; 1VXV; 1VXW; 1VXX; 1VXY; 1VXZ; 1VYA; 1VYB; 1VYC; 1VYD; 1VYE; 1VYF; 1VYG; 1VYH; 1VYJ; 1VYK; 1VYL; 1VYM; 1VYN; 1VYP; 1VYQ; 1VYR; 1VYS; 1VYT; 1VYU; 1VYV; 1VYW; 1VYX; 1VYY; 1VYZ; 1VZA; 1VZB; 1VZC; 1VZD; 1VZE; 1VZF; 1VZG; 1VZH; 1VZJ; 1VZK; 1VZL; 1VZM; 1VZN; 1VZP; 1VZQ; 1VZR; 1VZS; 1VZT; 1VZU; 1VZV; 1VZW; 1VZX; 1VZY; 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1WGY; 1WGZ; 1WHA; 1WHB; 1WHC; 1WHD; 1WHE; 1WHF; 1WHG; 1WHH; 1WHJ; 1WHK; 1WHL; 1WHM; 1WHN; 1WHP; 1WHQ; 1WHR; 1WHS; 1WHT; 1WHU; 1WHV; 1WHW; 1WHX; 1WHY; 1WHZ; 1WJA; 1WJB; 1WJC; 1WJD; 1WJE; 1WJF; 1WJG; 1WJH; 1WJJ; 1WJK; 1WJL; 1WJM; 1WJN; 1WJP; 1WJQ; 1WJR; 1WJS; 1WJT; 1WJU; 1WJV; 1WJW; 1WJX; 1WJY; 1WJZ; 1WKA; 1WKB; 1WKC; 1WKD; 1WKE; 1WKF; 1WKG; 1WKH; 1WKJ; 1WKK; 1WKL; 1WKM; 1WKN;

PHASE 2 REMODEL - REFER TO D1/AE152

PHASE 1 REMODEL - REFER TO A1/AE152

PHASE 2 REMODEL - REFER TO D1/AE152

PHASE 1 REMODEL - REFER TO A1/AE152

CONSULTATION / HOLDING E1046
EXISTING TO REMAIN
EXISTING TO REMAIN
(E) WORK AREA E1012
HYPERBARIC THERAPY E1051
HKPG E1051C
M.S.T. E1051B
P.T. / CHANGING E1051A
CORRIDOR E1059B
MALE S.T. / SHOWER E1062
FEMALE STAFF CHANGING LOCKERS E1063
MALE STAFF CHANGING LOCKERS E1070
FEMALE S.T. / SHOWER E1071
CORRIDOR E1026
CORRIDOR E1059
EXISTING
ANTE ROOM E1061
AIRBORNE INFECTION ISOLATION EXAM E1060
PHASE 1 DEMO- REFER TO AD151
STAFF LOUNGE E1039
HSKG E1036
ALCOVE E1058
POST-PROC BAY 5 E1056E
ST. TOK E1062
PREPOST-PROC BAY 4 E1056D
SOILED HOLDING E1037
PREPOST-PROC BAY 3 E1056C
CLEAN SUPPLY E1035
MEDICATION STATION E1066F
P.T.
CORRIDOR E1053
STORAGE, EQUIPMENT E1034
PREPOST-PROC BAY 2 E1056B
PREPOST-PROC BAY 1 E1056A
PAT. TOIL. E1064
CHANGING E1068
SEMI-RESTRICTED CORRIDOR E1046
OPEN
IT E1074
JE (I.S.T. E1073
OPEN
ELEC. E1075
B1 / AE520
A1 / AE520
MODIFY CEILING AS NEEDED AT EXISTING CEILING
AREA OF RATED LID ABOVE
CORRIDOR E1072
CLG HGT @ 9'-0"
EQUIP RM 1 E1047B
CATH LAB 1 E1047
CPOS
CATH LAB 2 E1049
EQUIP RM 2 10635
RECEPTION E1077
OFFICE E1076
CORRIDOR E1029A
CONTROL RM 1 E1047A
CONTROL RM 2 E1048A
PHASE 1 DEMO- REFER TO AD151
CP12
CP12
A1 / AE221
D1 / AE221

A1 PARTIAL REFLECTED CEILING PLAN - LEVEL 1- REMODEL

SCALE: 1/8" = 1'-0"

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SHEET NOTES

KEY NOTES - CEILING PLAN - REMODEL

CP05	NEW 18 X 18 ACCESS PANELS. CONFIRM LOCATION PRIOR TO INSTALLATION.
CP12	WHERE GYPSUM BOXES REMOVED AT EXTERIOR WALL, PATCH AS NEEDED TO MAINTAIN AIR BARRIER AND ALLOW FOR NEW FURRED WALL TO BE CONSTRUCTED, TYPICAL.

CEILING PLAN LEGEND

- EXISTING LAY-IN TILE GRID CEILING
- NEW LAY-IN TILE GRID CEILING
- NEW LAY-IN TILE GRID CEILING, (HATCH INDICATES TUNNEL COORIDOR AREA)
- NEW LAY-IN TILE GRID CEILING, COMPLIANT FOR USE IN AIRBORNE INFECTION ISOLATION EXAM / PACU ROOM. NON-ABSORBING, NON-PERFORATED, CLEAN AND WASHABLE. LAY-IN TILES SHALL BE GASKETED.
- EXISTING PAINTED GYB. BD. CEILING
- NEW PAINTING GYP. BD. CEILING SEE DETAIL A1 & A4 ON AE519

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LICENSED ARCHITECT STEVEN A. KLEIN C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	04/30/2025

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

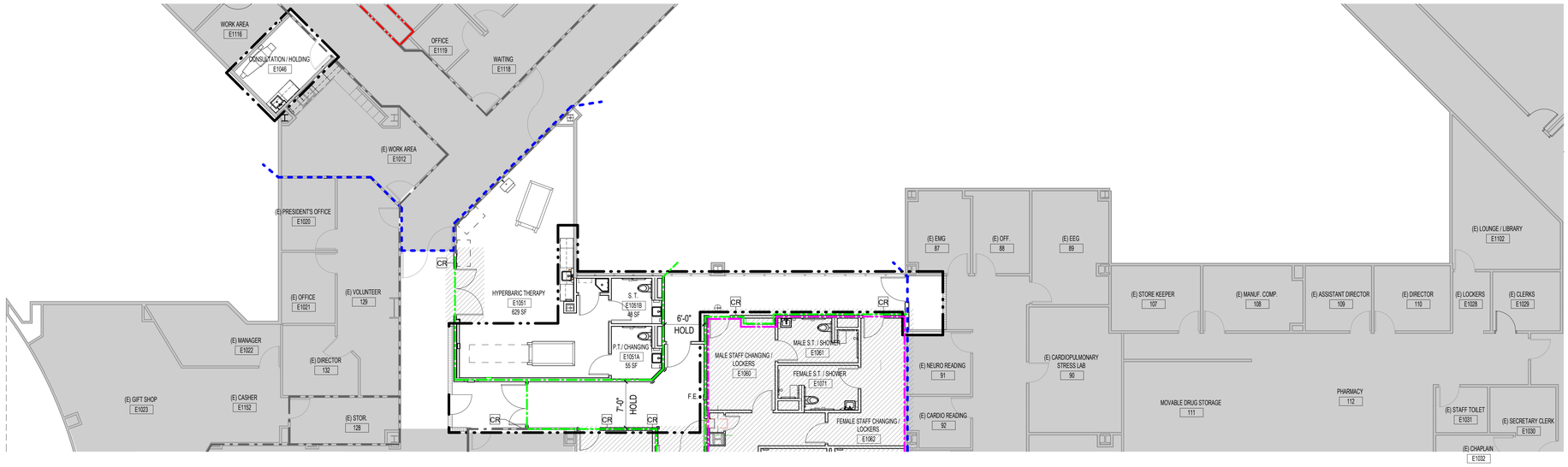
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PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - REMODEL

SHEET NUMBER

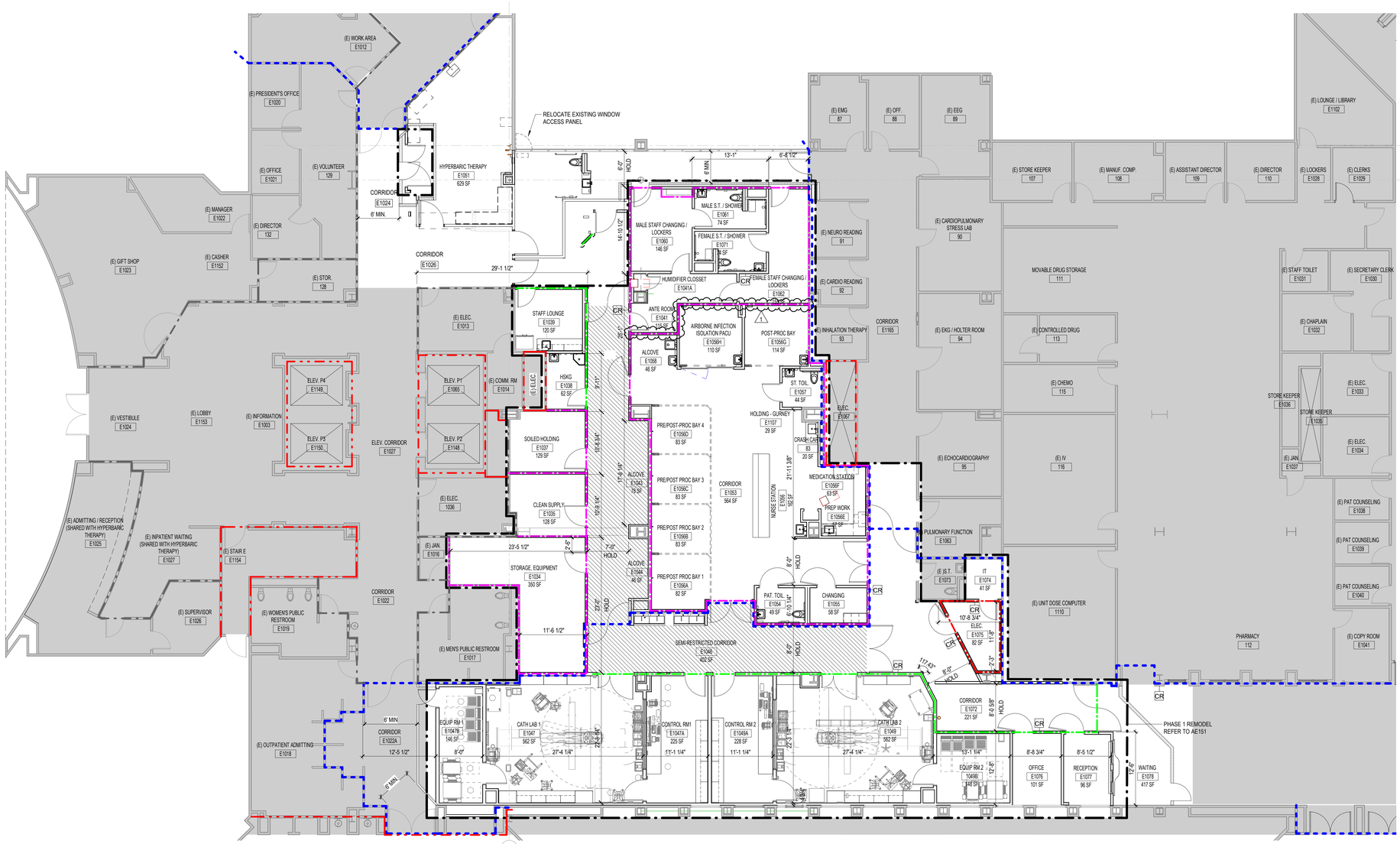
AE121

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E1 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 2- REMODEL PLAN

SCALE: 1/8" = 1'-0"



A1 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 1 - REMODEL PLAN

SCALE: 1/8" = 1'-0"

LEGEND

- 2 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 90 MINUTES.
- 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- 1 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- SMOKE PARTITION PER IBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- 1HR SMOKE BARRIER PER IBC SECTION 709. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- LEAD LINED WALL. SEE AE 141 FOR SHIELDING PLAN
- TEMPORARY CONSTRUCTION BARRIER, 1 HR FIRE PARTITION W/ 20 MIN PROTECTED OPENINGS. SEE DETAIL A1/AE511
- EXISTING AREA TO REMAIN, AREA NOT IN SCOPE OF WORK
- SEMI-RESTRICTED CORRIDOR
- PHASE 1 - SCOPE OF WORK
- PHASE 2 - SCOPE OF WORK

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LICENSED ARCHITECT STEVEN A. KNAPP C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	04/30/2025

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SHEET NAME

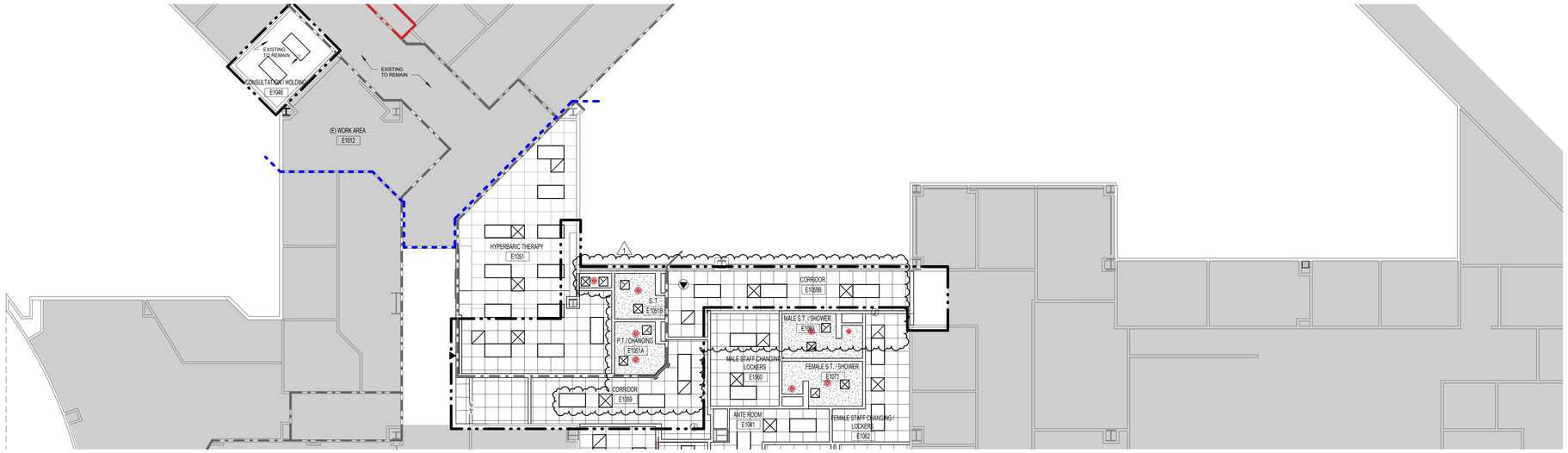
PHASING PLAN - LEVEL 1 - FLOOR PLAN - REMODEL

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AE151

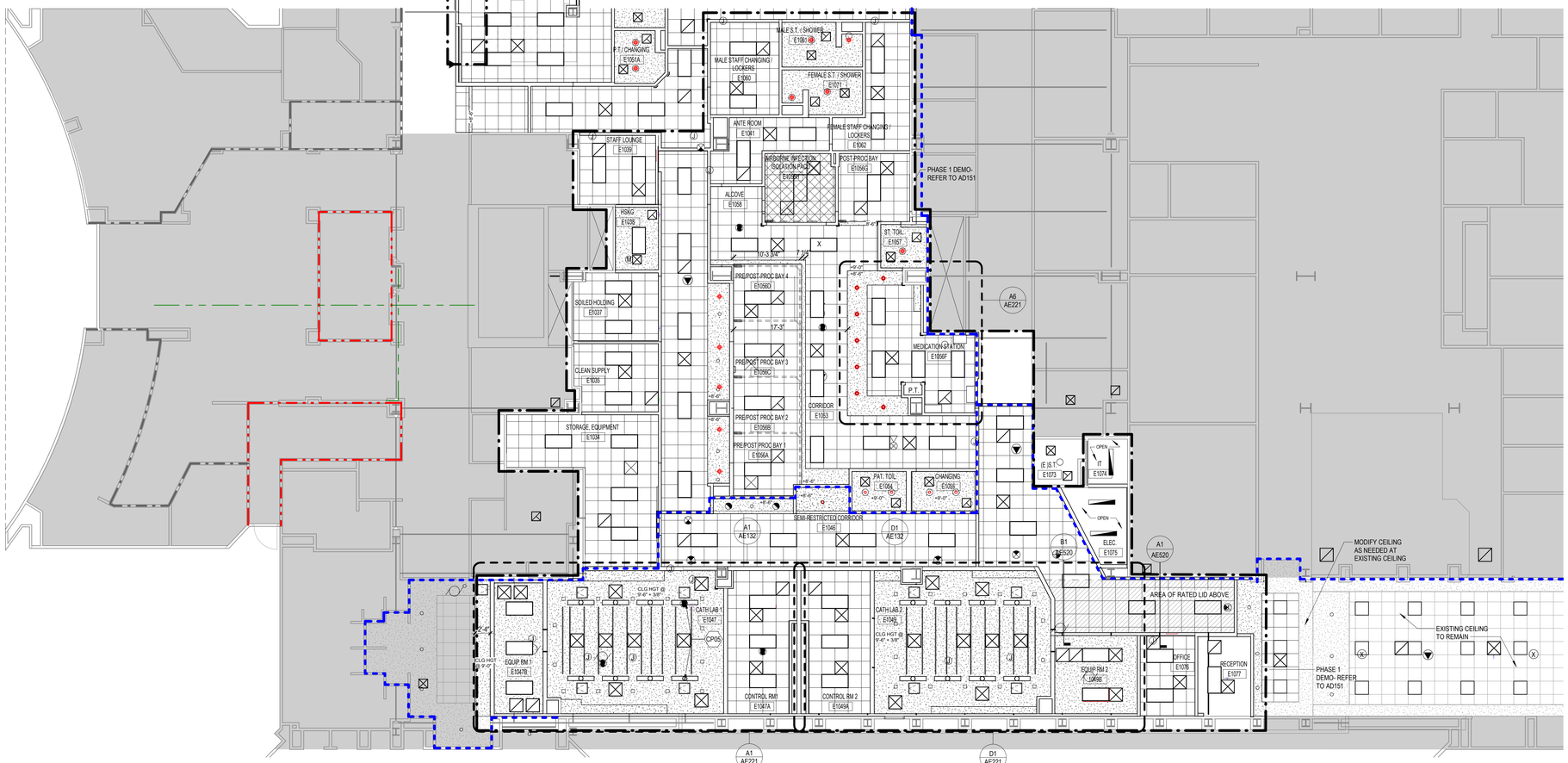
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D1 PARTIAL REFLECTED CEILING PLAN - LEVEL 1- REMODEL - PHASING 2

SCALE: 1/8" = 1'-0"



A1 PARTIAL REFLECTED CEILING PLAN - LEVEL 1- REMODEL - PHASING 1

SCALE: 1/8" = 1'-0"

CEILING LEGEND

- EXISTING LAY-IN TILE GRID CEILING
- NEW LAY-IN TILE GRID CEILING
- NEW LAY-IN TILE GRID CEILING, (HATCH INDICATES TUNNEL COORIDOR AREA)
- NEW LAY-IN TILE GRID CEILING, COMPLIANT FOR USE IN AIRBORNE INFECTION ISOLATION EXAM / PACU ROOM. NON-ABSORBING, NON-PERFORATED, CLEAN AND WASHABLE. LAY-IN TILES SHALL BE GASKETED.
- EXISTING PAINTED GYB. BD. CEILING
- NEW PAINTING GYP. BD. CEILING SEE DETAIL A1 & A4 ON AE519

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHANIA KHALIFE C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	04/30/2025

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

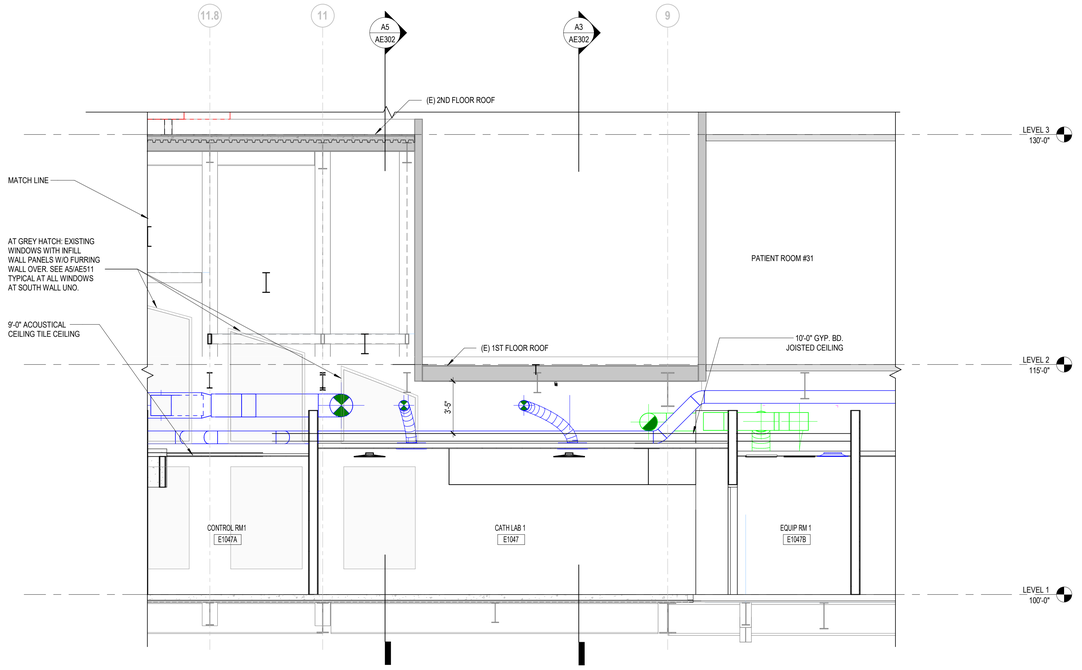
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SHEET NUMBER

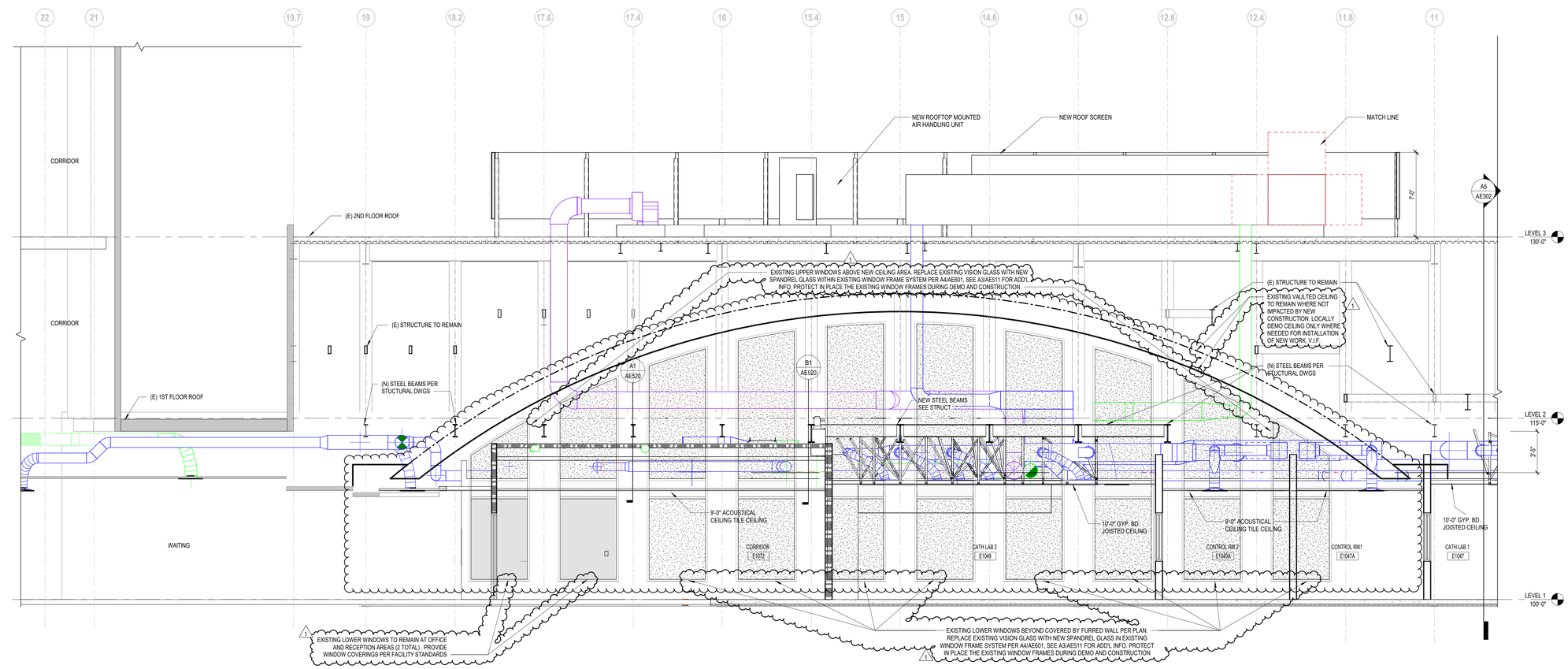
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5/6/2025 3:11:55 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt



D1 BUILDING SECTION @ CATH LAB 1 - EAST/WEST
SCALE: 1/4" = 1'-0"



A1 BUILDING SECTION ELEVATION @ CATH LAB 2 - EAST/WEST
SCALE: 1/4" = 1'-0"

5/6/2025 3:11:38 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

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FM08430011869	047-10071-002

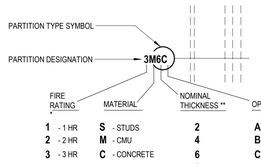
SHEET NAME

PARTIAL BUILDING SECTION @ CATH LAB - EAST/WEST

SHEET NUMBER

AE301

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* - DESIGNATION NOT INDICATED FOR NON-RATED PARTITIONS

** - DESIGNATION NOT INDICATED FOR PROJECT STANDARD THICKNESS

*** - DESIGNATION NOT INDICATED IF OPTIONS ARE NOT APPLICABLE; ONE OR TWO OPTION DESIGNATORS MAY BE USED.

SUGGESTED OPTIONS LIST

A - ACOUSTICAL INSULATION
B - BOTH FACES
C - GWB TO 6" ABOVE CEILING
D - DOUBLE WALL
G - GYPSUM WALL BOARD (FIRE RATED)
H - SHAFTWALL
L - LEAD LINED
O - ONE FACE ONLY
P - PARTIAL HEIGHT PARTITION
R - RIGID INSULATION W/ GWB COVERING
S - SMOKE PARTITION / BARRIER
T - TEMPORARY PARTITION
Z - STAGGERED STUDS (ACOUSTICAL)
2 - 2 LAYERS GWB

GENERAL NOTES:

1. PROVIDE MINIMUM 0.0312" STUDS @ WALLS TO RECEIVE FINISH (TILE, STONE, WOOD, ETC).
2. PROVIDE MINIMUM 0.0312" STUDS @ JAMBS OF DOOR AND FIXED GLASS FRAMES, @ OPEN PARTITION ENDS, AND WHERE PARTITION IS TO RECEIVE WALL MOUNTED SHELVES, CASEWORK, PLUMBING FIXTURES, ETC.
3. USE 5/8" FR GWB @ ALL FIRE-RATED PARTITIONS, ANCHOR W/ SCREWS @ 8" OC ON EDGES @ 12" OC IN FIELD PER UL DESIGN NUMBERS LISTED.
4. SEE ALL SPECIFICATIONS FOR GWB REQUIREMENTS @ TOILETS AND ALL WET AREAS.
5. APPLIES TO POWER AND COMMUNICATIONS, ETC.
   A) BACK-TO-BACK PLACEMENT OF OUTLET BOXES NOT PERMITTED.
   B) PLUG ALL UNUSED KNOCK-OUTS IN OUTLET BOXES WITH KNOCK-OUT CAPS.
   C) PROVIDE "HILTI FIRESTOP PUTTY PAD OR EQUAL TO OUTLET BOXES IN FIRE-RATED WALLS OR WHERE OTHERWISE INDICATED.
   D) DEPTH OF OUTLET BOX TO BE COMPATIBLE WITH STUD SIZES IN ORDER TO ACCOMMODATE BOX PAD.
6. PROVIDE 2" x 8" FIRE TREATED WOOD BLOCKING @ WALL HUNG CASEWORK, SHELVES, COUNTERTOPS, HEAVY WALL SCONCES, AND MAJOR ARTWORK.
7. NOTE, THE DIAGONAL BRACING COLUMN INDICATES THAT THE CONTRACTOR HAS AN OPTION TO PROVIDE BRACING TO REDUCE THE VERTICAL SPANS OF STUDS IN ORDER TO MINIMIZE SIZE, GAGE OR SPACING, PROVIDED THAT DOING SO DOESN'T CONFLICT WITH ARCHITECTS DESIGN CRITERIA.
8. FOR FIRE-RESISTIVE JOINT SYSTEMS AND THRU-PENETRATION FIRE STOP SYSTEMS, REFER TO DETAILS AND UL LISTINGS IDENTIFIED ON SHEET AE531 THRU AE535.

INTERIOR STUD CHART NOTES:

* REFERENCE STEEL STUD MANUFACTURER ASSOCIATION'S STANDARDS FOR SECTION PROPERTIES AND DESIGN OF STUD SIZE LISTED HERE.

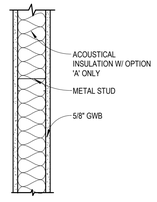
USE L/240 DEFLECTION CHART FOR ALL AREAS UNLESS OTHERWISE NOTED.

INTERIOR STUD GAGE AND SPACING CHART*

STUD WIDTH	DESIGN THICKNESS (GAGE)	STUD SPACING (INCHES)	PARTITION HEIGHT DEFLECTION VALUE 5 psf L/120	PARTITION HEIGHT DEFLECTION VALUE 5 psf L/240	PARTITION HEIGHT DEFLECTION VALUE 5 psf L/360	BRACING SPACING WHERE OCCURS
1 5/8"	0.0179" (25)	16"	10'-7"	8'-4"	-	4'-0" OC
		24"	9'-9"	7'-11"	-	4'-0" OC
	0.0312" (20)	16"	12'-1"	9'-8"	8'-5"	4'-0" OC
		24"	11'-0"	8'-9"	7'-8"	4'-0" OC
2 1/2"	0.0179" (25)	16"	13'-3"	11'-3"	9'-10"	6'-0" OC
		24"	11'-10"	10'-7"	9'-3"	6'-0" OC
	0.0312" (20)	16"	16'-5"	12'-10"	11'-2"	6'-0" OC
		24"	14'-10"	11'-7"	10'-0"	6'-0" OC
4"	0.0179" (25)	16"	17'-2"	15'-4"	13'-4"	8'-0" OC
		24"	15'-1"	14'-2"	12'-4"	8'-0" OC
	0.0312" (20)	16"	23'-1"	18'-4"	15'-11"	8'-0" OC
		24"	20'-9"	16'-5"	14'-3"	8'-0" OC
6"	0.0179" (25)	16"	19'-9"	19'-9"	17'-11"	10'-0" OC
		24"	16'-9"	16'-9"	16'-9"	10'-0" OC
	0.0312" (20)	16"	30'-10"	24'-6"	21'-4"	10'-0" OC
		24"	27'-2"	21'-7"	18'-10"	10'-0" OC

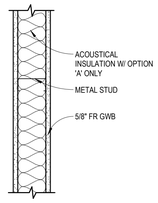
PARTITION TYPES LEGEND

PARTITION TYPES GENERAL NOTES & SPACING CHART



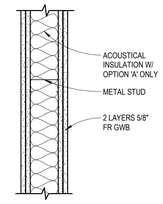
NON-RATED PARTITION

S2 — 2 1/2" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB BOTH SIDES
S4 — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB BOTH SIDES
S4C — 4" x 16 GA METAL STUDS @ 16" OC TO 6" ABOVE CEILING W/ 5/8" GWB BOTH SIDES
S4A — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES
S6 — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB BOTH SIDES, STC 49
S6C — 6" x 16 GA METAL STUDS @ 16" OC TO 6" ABOVE CEILING W/ 5/8" GWB BOTH SIDES
S6A — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES, STC 49
S6A4 — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES - SMOKE PARTITION
S6SA — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES - SMOKE PARTITION
S6L — LEAD LINED PARTITION WITH 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED)
S2P — 2 1/2" x 16 GA METAL STUDS @ 16" OC TO 3'-6"AFF W/ 5/8" GWB BOTH SIDES



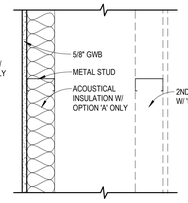
ONE HOUR FIRE RATING UL DESIGN NO U419

1SA — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" FR GWB BOTH SIDES
1SAA — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" FR GWB BOTH SIDES & ACOUSTICAL INSULATION, STC 49
1S6 — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" FR GWB BOTH SIDES
1S6A — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" FR GWB BOTH SIDES, STC 49
1S6L — LEAD LINED PARTITION WITH 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" FR GWB BOTH SIDES - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED), STC 49



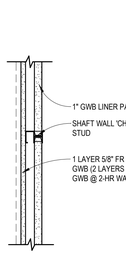
TWO HOUR FIRE RATING UL DESIGN NO U419

2SA — 4" x 16 GA METAL STUDS @ 16" OC W/ 2 LAYERS 5/8" FR GWB BOTH SIDES & ACOUSTICAL INSULATION TO STRUCTURE, STC 56



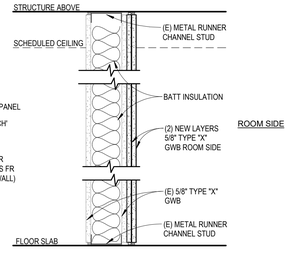
OPTION 'O' - ONE GWB FACE ONLY

S2O — 2 1/2" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY
S4O — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY
S6O — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY
S2OL — LEAD LINED PARTITION 2 1/2" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED)
S4OL — LEAD LINED PARTITION 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED)
S10L — LEAD LINED PARTITION 1 5/8" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED)



2 HOUR - SHAFTWALL

2SAH — 4" 'CH' STUDS @ 16" OC W/ 2 LAYERS 5/8" FR GWB & A 1" GWB LINER PANEL TO STRUCTURE
UL DESIGN NO U438



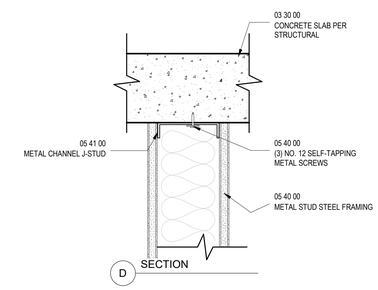
2-HR FIRE BARRIER W/3 LAYERS INSIDE UL DESIGN NO. 408

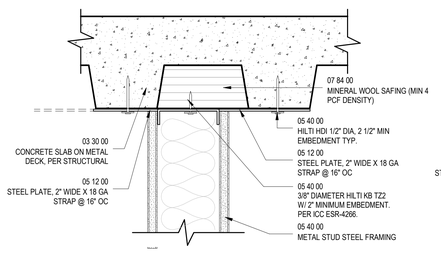
2G — 2 LAYERS OF FIRE RATED 5/8" GWB ON EXISTING METAL STUD WALL W/5/8" GWB ON EACH SIDE. THE 3 LAYER OF GWB SHALL BE ON THE ROOM SIDE.



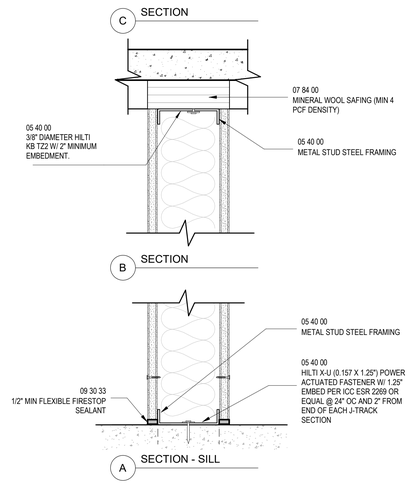
2-HR HORIZONTAL FIRE BARRIER UL DESIGN NO. 408

2G — 2 LAYERS OF FIRE RATED 5/8" GWB ON EXISTING METAL STUD WALL W/5/8" GWB ON EACH SIDE. THE 3 LAYER OF GWB SHALL BE ON THE ROOM SIDE.

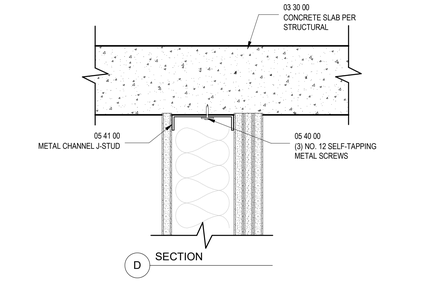


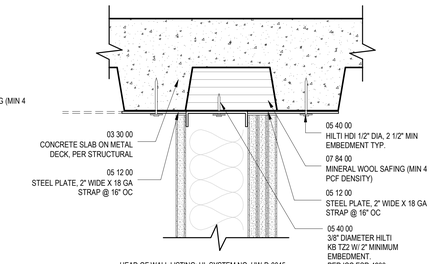


HEAD OF WALL LISTING: UL SYSTEM NO. HW-D-0284 OR HW-D-0396

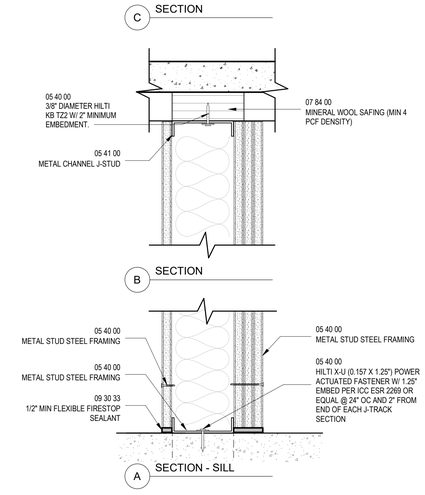


ONE HOUR FIRE RATING: UL SYSTEM NO. U419





HEAD OF WALL LISTING: UL SYSTEM NO. HW-D-0045

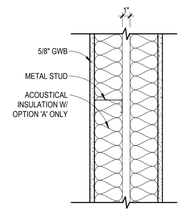


ONE HOUR FIRE RATING: UL SYSTEM NO. U408

C1 PARTITION TYPES STUD (PLANS)
SCALE: NTS

C5 1-HR RATED ASSEMBLY - HEAD AND SILL
SCALE: 3" = 1'-0"

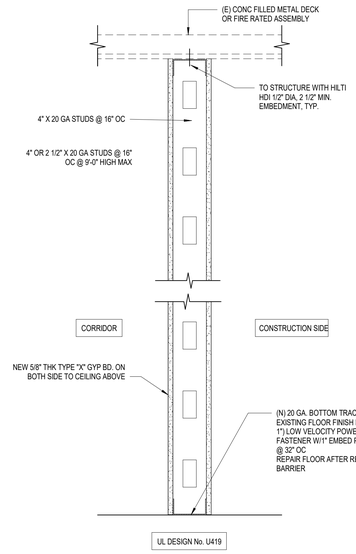
C7 2-HR RATED ASSEMBLY - HEAD AND SILL
SCALE: 3" = 1'-0"



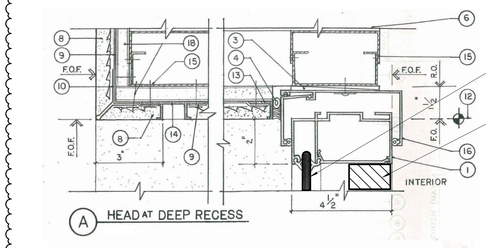
PLUMBING PARTITION

S9 — (2) 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY AND 1" AIR GAP IN BETWEEN

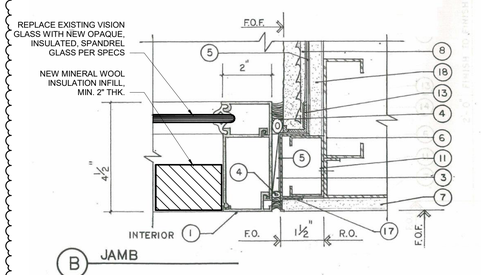
A1 PARTITION TYPES STUD (PLUMBING)
SCALE: 1 1/2" = 1'-0"



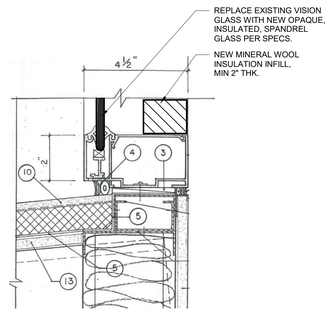
A2 TEMPORARY CONSTRUCTION BARRIER
SCALE: 1 1/2" = 1'-0"



A HEAD AT DEEP RECESS



B JAMB



C SILL

KEYNOTES

1. EXISTING WINDOW FRAME
2. FASTENER PER WINDOW MANUFACTURER'S SPECIFICATIONS AND/OR OSHPD REQUIREMENTS AND APPROVAL.
3. SHIM PER WINDOW MANUFACTURER'S SPECIFICATIONS.
4. CONTINUOUS CAULKING SEALANT WITH BACKER ROD AS REQUIRED.
5. CONTINUOUS SHEET WATERPROOF MEMBRANE.
6. METAL STUD FRAMING MEMBER. SEE STRUCTURAL DRAWINGS.
7. 5/8" GYPSUM BOARD.
8. STUCCO WITH PAPER-BACKED LATH.
9. BUILDING PAPER TO BE EXTENDED OVER METAL EXTRUSION FLANGES.
10. G.I. CORNER SCREED.
11. 2½" X 1-3/8" METAL STUD INSIDE 2½" X 1¼" STUD TRACK FOR LEVELING/SQUARING OF ROUGH OPENING.
12. FINISH CEILING LINE. SEE REFLECTED CEILING PLAN OR FINISH SCHEDULE.
13. CONTINUOUS EXTRUDED METAL STANDARD "J" MOLD.
14. CONTINUOUS G.I. METAL STANDARD "J" MOLD.
15. 4" X 1-5/8" METAL STUD INSIDE 4" X 1¼" STUD TRACK FOR LEVELING/SQUARING OF ROUGH OPENING.
16. CONTINUOUS SEISMIC WINDOW RECEPTOR FRAME.
17. STANDARD GYPSUM BOARD "J" MOLD.
18. 5/8" EXTERIOR GYPSUM SHEATHING.

A3 WINDOW DETAIL - JAMB AT DEEP RECESS
SCALE: NTS

Riverside University HEALTH SYSTEM

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PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

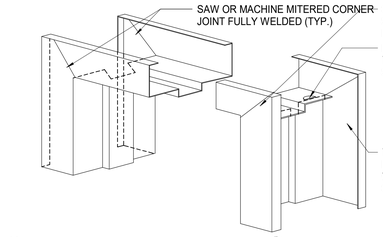
RUHS-MC PROJ. NO.: FM08430011869
CONSULTANT PROJ. NO.: 047-10071-002

SHEET NAME
PARTITION TYPES

SHEET NUMBER
AE511

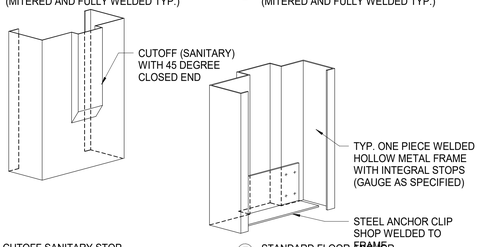
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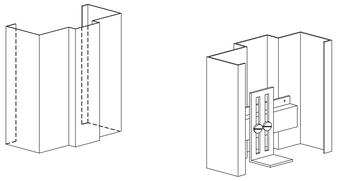
A CORNER JOINT (MITERED AND FULLY WELDED TYP.)

D CORNER JOINT (MITERED AND FULLY WELDED TYP.)



B CUTOFF SANITARY STOP (WHERE SCHEDULED)

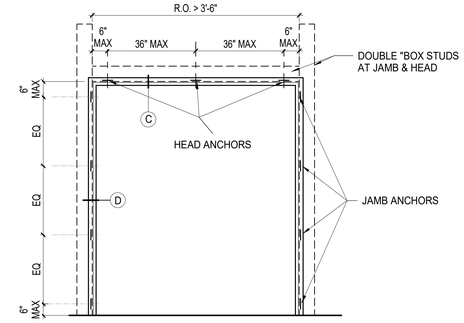
E STANDARD FLOOR ANCHOR (TYPICAL, UON)



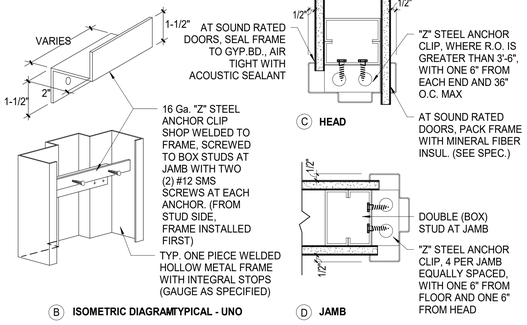
C STANDARD STOP (TYPICAL, UON)

F ADJUSTABLE FLOOR ANCHOR (TYPICAL AT FLOORS WITH SETTING BED)

D1 HOLLOW METAL FRAMES
SCALE: 3" = 1'-0"



A **FRAME ELEVATIONTYPICAL - UNO**

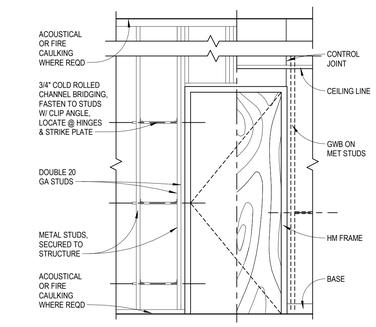


B **ISOMETRIC DIAGRAMTYPICAL - UNO**

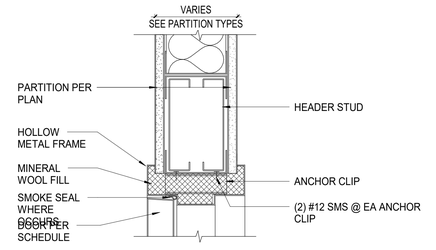
C **HEAD**

D **JAMB**

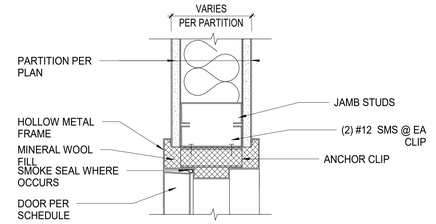
D2 FRAME ATTACHMENT
SCALE: 3" = 1'-0"



F4 TYPICAL DOOR FRAMING
SCALE: 1 1/2" = 1'-0"

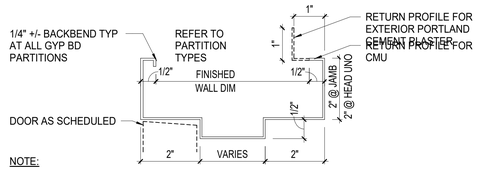


F5 TYPICAL INTERIOR DOOR HEAD
SCALE: 3" = 1'-0"



HEAD SIMILAR

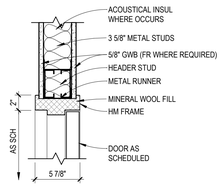
D5 TYP. INT. DOOR JAMB
SCALE: 3" = 1'-0"



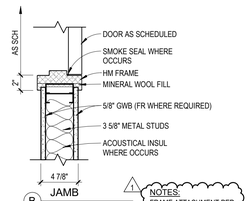
NOTE:

1. ALL FRAMES ARE WELDED UNLESS NOTED OTHERWISE
2. EXTEND STOPS TO FLOOR WHERE WEATHER STRIPPING, AUTOMATIC DOOR BOTTOMS
3. CLOSE BOTTOM OF STOP WELD & GRIND SMOOTH

C6 TYP. HM FRAME PROFILE
SCALE:1" = N.T.S.



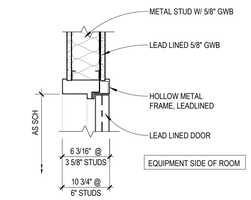
A HEAD



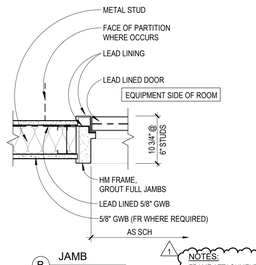
B JAMB

NOTES:
1. FRAME ATTACHMENT PER DETAIL D2/AE551

B1 HM DOOR FRAME IN METAL STUD
SCALE: 1 1/2" = 1'-0"



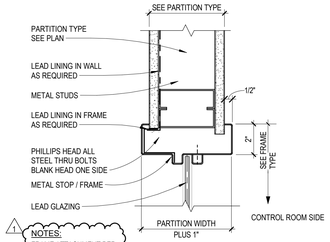
A HEAD



B JAMB

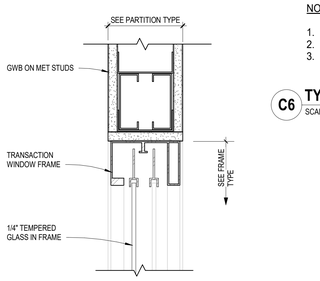
NOTES:
1. FRAME ATTACHMENT PER DETAIL D2/AE551

B2 HM FRAME DOOR DETAIL - LEADLINED
SCALE: 1 1/2" = 1'-0"

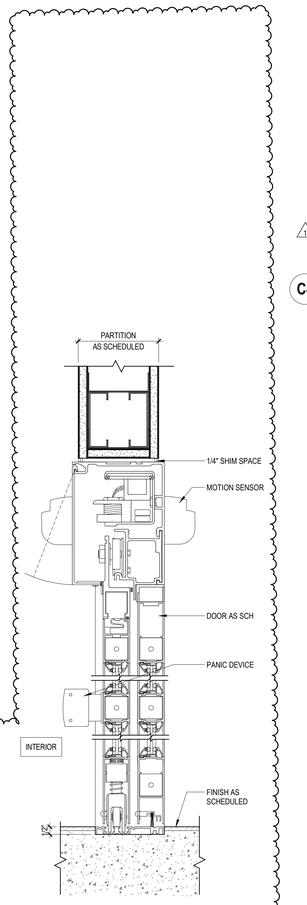


NOTES:
1. FRAME ATTACHMENT PER DETAIL D2/AE551

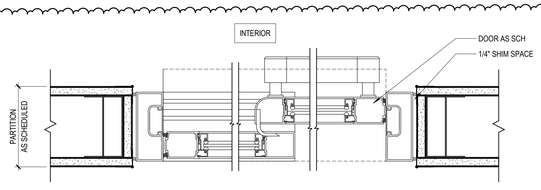
C4 LEAD-LINED WDW FRAME JAMB/HEAD/SILL
SCALE: 3" = 1'-0"



B5 TRANSACTION WINDOW DETAIL
SCALE: 3" = 1'-0"



A3 SLIDING DOOR - VERTICAL
SCALE: 3" = 1'-0"



A1 SLIDING DOOR - HORIZONTAL
SCALE: 3" = 1'-0"

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	04/30/2025

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

DETAILS - DOOR AND WINDOW

SHEET NUMBER

AE551

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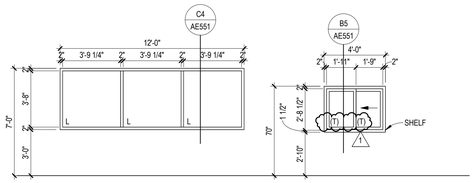
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WINDOW SCHEDULE - NEW WINDOWS

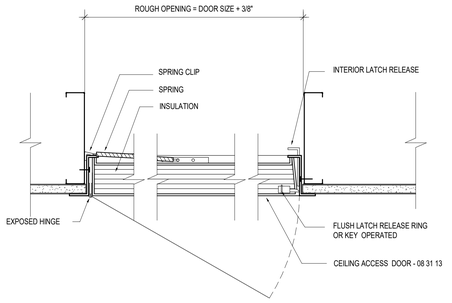
WINDOW TYPE	Width	Height	FRAME TYPE	FRAME FINISH	DETAIL NO.	DETAIL SHEET	COMMENTS
W1	12'-0"	4'-0"	HM	PT-	C4	AE551	LEAD-LINED (L)
W2	4'-0"	3'-0"	HM	PT-	B5	AE551	(T)
W3	3'-0"	4'-2"	EXISTING	EXISTING	A4/AE601	A4/AE601	EXISTING GLAZING AND FRAME TO REMAIN (E)
W4	3'-0"	4'-0"	EXISTING	EXISTING	A4/AE601	A4/AE601	REPLACE EXISTING GLASS PANEL WITH NEW SPANDREL GLASS IN EXISTING FRAME (S)

1

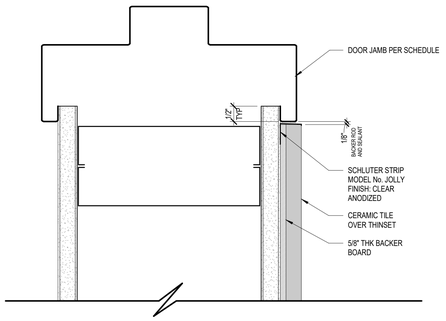
WINDOW REMARKS:
A = 1/4" LAMINATED, CLEAR GLASS
E = EXISTING GLAZING TO REMIAN
F = FIRE RATED GLAZING PER OPENING PROTECTION LABEL HOUR RATING IN DOOR SCHEDULE
L = LEAD LINED (MEET SHIELDING REQUIREMENTS ON AE141
T = 1/4" TEMPERED, CLEAR GLASS
S = SPANDREL (COORDINATE TO MATCH EXISTING HOSPITAL GLASS COLOR AND CERAMIC FRIT COLOR, V.I.F.)



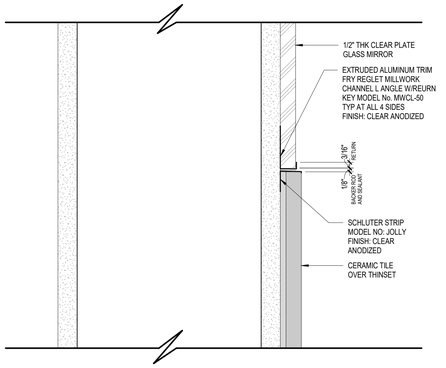
WINDOW FRAME TYPES
SCALE: 1/4" = 1'-0"



D1 **CL- ACCESS DOOR**
SCALE: 3" = 1'-0"



B1 **DETAIL AT TILE EDGE AT DOOR JAMB AND HEAD**
SCALE: 6" = 1'-0"



A1 **DETAIL AT MIRROR AND TILE EDGE**
SCALE: 6" = 1'-0"

DOOR SCHEDULE

DOOR NO.	DOOR TYPE	Width	DOOR HEIGHT	HDWE SET	DOOR TYPE	DOOR MAT'L	DOOR FIN.	FRAME TYPE	FRAME MAT'L	FRAME FIN.	DETAILS	SET SHT	LABEL HOUR	REMARKS
1034		3'-6"	7'-0"	119	F	WD	P-1	1	HM	P-2	B1	AE551	45	SMOKE DOOR
1035		3'-6"	7'-0"	119	F	WD	P-1	1	HM	P-2	B1	AE551	45	
1037		3'-6"	7'-0"	120	F	WD	P-1	1	HM	P-2	B1	AE551	45	
1038		3'-0"	7'-0"	119	F	WD	P-1	1	HM	P-2	B1	AE551	20 MIN.	
1039		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2	B1	AE551	20 MIN.	NOTE 1, 5
1040A	UN	7'-0"	7'-0"	124	F	WD	P-1	3	HM	P-2	B1	AE551	20 MIN.	NOTE 4, PANIC HARDWARE; EACH DOOR LEAF TO BE 20 MIN. FIRE RATED ; UNEVEN PAIR DOOR, ONE LEAF 44" CLR WIDTH; PANIC HDWR; HOLD OPENS; OPPOSIT SWING
1040B	UN	7'-0"	7'-0"	124	F	WD	P-1	3	HM	P-2	B1	AE551	20 MIN.	UNEVEN PAIR DOORS, ONE LEAF 44" MIN CLR WIDTH; PANIC HDWR; HOLD OPENS; OPPOSIT SWING
1040C		3'-6"	7'-0"	112	F	WD	P-1	1	HM	P-2	B1	AE551	45	
1041A		3'-0"	7'-0"	118	F	WD	P-1	1	HM	P-2	B1	AE551	45	
1041B		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2	B1	AE551	--	NOTE 1, 5
1041C		2'-2"	7'-0"	122	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1046	UN	6'-0"	7'-0"	101	F/NG	HM	P-1	2	HM	P-2	B1	AE551	--	NOTE 1, 2, 3, 5 PANIC HARDWARE, ONE LEAF 44" MIN CLR WIDTH
1047	UN	6'-0"	7'-0"	104	F/F	WD	P-1	2	HM	P-2	B2	AE551	20 MIN.	NOTE 2, 3, 5, LEAD-LINED
1047A		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2	B2	AE551	45 MIN.	LEAD-LINED
1047A.1		3'-6"	7'-0"	117	F	WD	P-1	1	HM	P-2	B1	AE551	20 MIN.	
1047B		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2	B2	AE551	45 MIN.	LEAD-LINED
1047B.1		3'-0"	7'-0"	116.1	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1049	UN	6'-0"	7'-0"	104	F/F	WD	P-1	2	HM	P-2	B2	AE551	20 MIN.	NOTE 2, 3, 5
1049A		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2	B2	AE551	45 MIN.	LEAD-LINED
1049A.1		3'-6"	7'-0"	117	F	WD	P-1	1	HM	P-2	B1	AE551	20 MIN.	
1049B		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2	B2	AE551	45 MIN.	LEAD-LINED
1051	UN	7'-0"	7'-0"	105	F/F	WD	P-1	2	HM	P-2	B1	AE551	20 MIN.	NOTE 1, 2, 3, 5 LEAD-LINED
1051A		3'-0"	7'-0"	114	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1051B		3'-0"	7'-0"	115	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1051C		3'-0"	7'-0"	121	F	WD	P-1	1	HM	P-2	B1	AE551	20 MIN.	
1053	PR	7'-0"	7'-0"	103	F	HM	P-1	2	HM	P-2	B1	AE551	45 MIN.	NOTE 2, 3, 5; EACH DOOR LEAF TO BE 45 MIN FIRE RATED
1054		3'-0"	7'-0"	114	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1055		3'-0"	7'-0"	114	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1057		3'-0"	7'-0"	113	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1059A	PR*	6'-2"	7'-0"	107	F/NG	WD	P-1	2	HM	P-2	B1	AE551	--	NOTE 1, 4, 5 PANIC HARDWARE
1059B		3'-8"	7'-0"	126	NG	WD	P-1	1	HM	P-2	B1	AE551	--	NOTE 1, 4
1059C		3'-6"	7'-0"	125	F	HM	P-1	1	HM	P-2	B1	AE551	45	
1060		9'-0"	7'-6"	106	SGD	AL	ANOD	4	AL	ANOD	A1, A3	AE551	--	SLIDING DOOR TO BE EQUIPPED WITH AN AUTO-CLOSER AND POSITIVE LATCH, SLIDER IN OPEN POSITION SHALL ALLOW 44" MIN. CLR
1060A		3'-0"	7'-0"	123	F	WD	P-1	1	HM	P-2	B1	AE551	45	NOTE 1, 5
1060B		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2	B1	AE551	--	NOTE 1
1061		3'-0"	7'-0"	115	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1062		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2	B1	AE551	45	NOTE 1, 5
1071		3'-0"	7'-0"	115	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1071C	UN	7'-0"	7'-0"	102	F/NG	WD	P-1	2	HM	P-2	B1	AE551	45 MIN.	NOTE 1, 2, 3, 5
1072A	PR	8'-0"	7'-0"	101.1	NG	HM	P-1	3	HM	P-2	B1	AE551	20 MIN.	NOTE 1, 2, 3, 5 PANIC HARDWARE; EACH DOOR LEAF TO BE 20 MIN FIRE RATED
1072B	PR	8'-0"	7'-0"	124	NG	HM	P-1	3	HM	P-2	B1	AE551	20 MIN.	NOTE 4
1074		3'-0"	7'-0"	111	F	WD	P-1	1	HM	P-2	B1	AE551	90 MIN.	
1075		3'-0"	7'-0"	110	F	WD	P-1	1	HM	P-2	B1	AE551	90 MIN.	NOTE 1, 5, 6
1076		3'-0"	7'-0"	109	F	WD	P-1	1	HM	P-2	B1	AE551	20 MIN.	NOTE 1, 5
1077		3'-0"	7'-0"	126	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1079		3'-0"	7'-0"		F	WD	P-1	1	HM	P-2	B1	AE551	--	

1 1

DOOR HARDWARE REMARKS

AO	AUTOMATIC OPENER
CR	CARD READER
DA	DELAYED ALARM
EH	ELECTRIC HARDWARE
FAR	FIRE ALARM RELAY
HO	HOLD OPEN
IB	INTEGRAL BLINDS
LD	ER LOCKDOWN
PR	EQUAL PAIR DOOR
UN	UNEQUAL PAIR DOOR

DOOR HARDWARE NOTES

NOTE 1 - HARD-WIRED CARD READER: HARD-WIRED CARD READER LOCATIONS REQUIRE ELECTRICAL AND/OR SECURITY TO COORDINATE, FURNISH & INSTALL COMPONENTS INCLUDING BUT NOT LIMITED TO WIRE, CONDUIT, AND CONNECTIVITY FROM CEILING THROUGH FRAME TO ALL ELECTRIFIED HARDWARE SPECIFIED IN SECTIONS 08 71 00, 08 71 13 AND/OR 08 17 13.

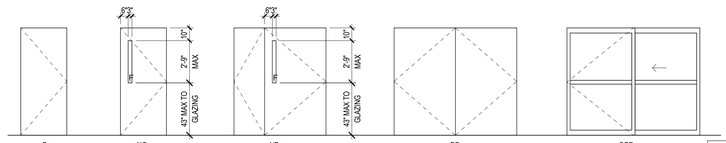
NOTE 2 - AUTOMATIC OPERATOR LOCATIONS: HARD-WIRED, ELECTRICAL 120V LOCATIONS REQUIRED. ELECTRICAL AND/OR SECURITY TO COORDINATE, FURNISH & INSTALL COMPONENTS INCLUDING BUT NOT LIMITED TO WIRE, CONDUIT, AND CONNECTIVITY FROM CEILING THROUGH FRAME TO COMPLETE ELECTRIFIED HARDWARE SPECIFIED (INCLUDING FOR SWING DOORS 6'X8" BOLLARDS WITH FULL HEIGHT PUSH-PLATE/ACTUATORS AT EACH LEAF INTERIOR AND EXTERIOR) AND AS SEEN IN SECTIONS 08 71 00, 08 71 13, 08 17 13 AND/OR IN DIVISION 08 SLIDING OR REVOLVING DOOR SPECIFICATIONS.

NOTE 3 - AUTOMATIC OPERATOR SURFACE OVERHEAD LOCATIONS REQUIRING 6" OVERHEAD CLEARANCE. SEE SPECIFIED IN SECTIONS 08 17 13.

NOTE 4 (HO) - WALL ELECTRO-MECHANICAL MAG HOLD-OPENS. FURNISH AND INSTALL FIRE ALARM DROP. IN THE EVENT OF FLS/FIRE LIKE SAFETY) OR EMERGENCY OR LOSS OF BUILDING POWER. WALL MOUNTED ELECTRO-MECHANICAL HOLD-OPEN DEVICES TO HAVE POWER DROPPED (DOOR TO SELF-CLOSE AND SELF-LATCH DOORS IN AN EMERGENCY). ELECTRICAL TO FURNISH & INSTALL COMPONENTS INCLUDING BUT NOT LIMITED TO WIRE, CONDUIT, AND CONNECTIVITY.

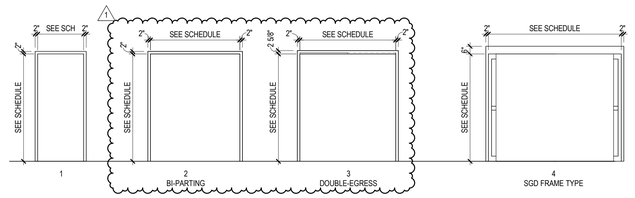
NOTE 5 - DOORS WHERE ELECTRICAL SYSTEMS THAT MONITOR OR RECORD EGRESS ACTIVITY ARE INCORPORATED, THE LOCKING SYSTEM SHALL COMPLY WITH SECTION 1010.2.11, 1010.2.12, 1010.2.13, 1010.2.14 OR 1010.2.15 OR SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.

NOTE 6 - PROVIDE SIGNAGE FOR ELECTRICAL ROOM LABELED AS "ELECTRICAL ROOM" PER CODE

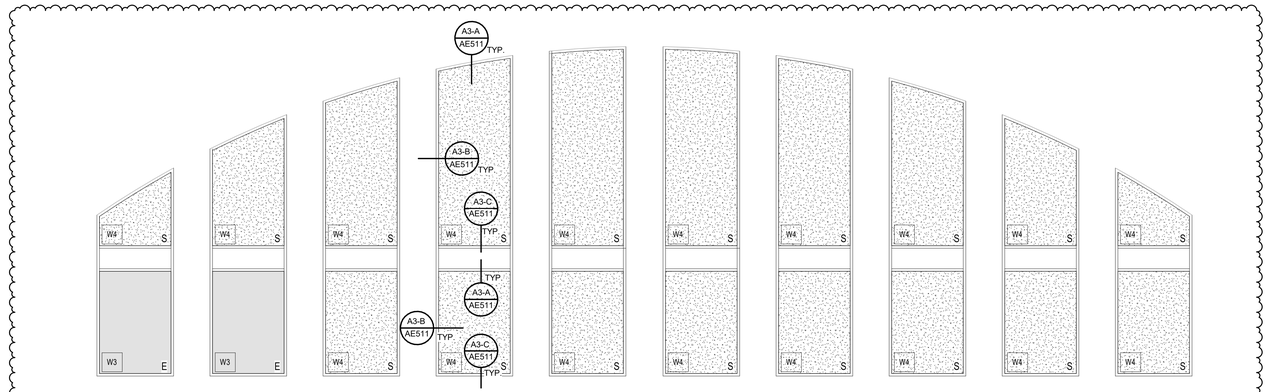


NOTE:
FOR VISION PANELS IN DOORS ACROSS FIRE BARRIERS AND FIRE PARTITIONS, THE FIRE-RESISTANCE-RATED GLAZING TESTED TO ASTM E119 IN ACCORDANCE WITH SECTION CCBC 716.1.2.3 SHALL BE PERMITTED, IN THE MAXIMUM SIZE TESTED

DOOR TYPES
SCALE: 1/4" = 1'-0"



DOOR FRAME TYPES
SCALE: 1/4" = 1'-0"



NOTE: SEE WINDOW SCHEDULE FOR GLAZING TYPE

1 A4 **EXTERIOR WINDOW TYPES ELEVATION**
SCALE: 1/4" = 1'-0"

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KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	04/30/2025

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
DOOR SCHEDULE, DOOR TYPES, AND FRAMES

SHEET NUMBER
AE601

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GENERAL NOTES:

1 REBALANCE RETURN AIR FLOW EACH TIME DEMOLITION AND BYPASS DUCTS ARE TOUCHED (MULTIPLE AIR BALANCE) TO ASSURE RETURN AIR REGISTERS REMAIN THE SAME AS PRE-TEST VALUES.

KEY NOTES

201 CAP & SEAL DUCT OPENING.
202 PROVIDE SEISMIC BRACING FOR EXISTING DUCTS LARGER THAN 6 SF CROSS SECTION.
211 BALANCE EXISTING REGISTERS AS REQUIRED PER WORK SEQUENCE TO MAINTAIN COMPLIANCE WITH HCAI CAN-102.6.
216 REFER TO ELECTRICAL DRAWINGS FOR TERMINAL LOCATIONS OF 120V POWER FOR CONTROLS (TYP.)
401 STEAM HOSE AND CONDENSATE LINES
402 REFER TO PLUMBING DRAWINGS FOR MAKE-UP WATER AND DRAIN CONNECTIONS FOR HUMIDIFIER.
601 REFER TO ARCHITECTURAL DRAWINGS FOR DETAIL OF OFFSET IN RATED WALLS TO MAINTAIN EXISTING DUCT MAIN LOCATION. REGION SHOWN ON MECHANICAL FLOOR PLANS INDICATE EXTENT AND LOCATION OF DUCT REQUIRING WALL OFFSET.

OUTSIDE OF NEW WORK BOUNDARY

OUTSIDE OF NEW WORK BOUNDARY

OUTSIDE OF NEW WORK BOUNDARY

OUTSIDE OF NEW WORK BOUNDARY

3 / ME212

1 / ME212

1 LEVEL 1 - MECHANICAL PLAN ENLARGED REMODEL PHASE 1 - NORTH

1/4" = 1'-0"

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DEAN SHELLENBERGER
No. M 22419
Exp. 12-31-25
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STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	04/30/2025

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/6/12

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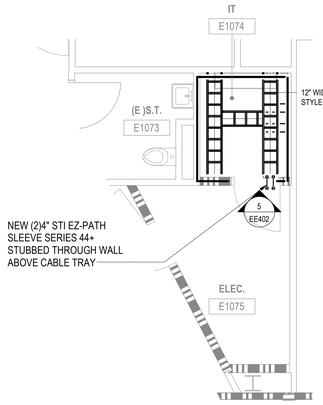
MECHANICAL ENLARGED PLAN REMODEL PHASE 1 - LEVEL 1 - NORTH

SHEET NUMBER

ME211

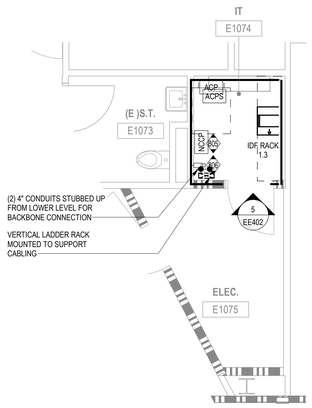
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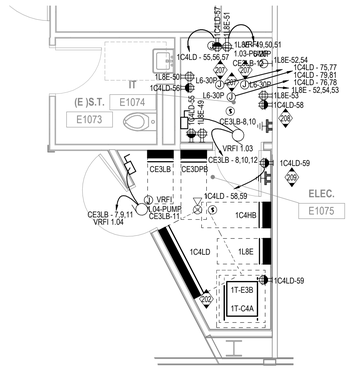
6 LEVEL 1 - TELECOMM ENLARGED PATHWAY PLAN - IT & ELEC CLOSETS

1/4" = 1'-0"



4 LEVEL 1 - TELECOMM ENLARGED PLAN - IT & ELEC CLOSETS

1/4" = 1'-0"



2 LEVEL 1 - ELECTRICAL ENLARGED POWER PLAN - IT CLOSET & ELEC CLOSET

1/4" = 1'-0"

GENERAL NOTES:

1. ALL NEW NURSE CALL CABLING SHALL BE ROUTED AND TERMINATED AT THE NEW NURSE CALL TERMINAL CABINET LOCATED IN ROOM E1047.
2. CONTRACTOR SHALL REINSTALL THE EXISTING SPEAKERS FROM THE DEMOLISHING PHASE, ADJUST AS NECESSARY TO AVOID CONFLICTS WITH ARCHITECTURE AND OTHER DEVICES AND EQUIPMENTS. CONNECT SPEAKERS TO EXISTING PROTECTED IN PLACE SPEAKER CABLING. IF EXISTING CABLING IS NOT AVAILABLE, OR IN POOR CONDITION, CONTRACTOR SHALL PULL NEW CABLE TO SPEAKER FROM EXISTING HEAD-END CABINET. CONTRACTOR TO PRICE NEW HOMERUNS IF CAPACITY IS NEEDED FOR NEW SPEAKERS.
3. REFER TO MECHANICAL EQUIPMENT SCHEDULE ON SHEET EE606 FOR ADDITIONAL INFORMATION.
4. DISCONNECTING MEANS FOR EACH SERVICE, FEEDER OR BRANCH CIRUCIT ORIGINATING ON A SWITCHBOARD OR PANELBOARD SHALL BE LEGIBLY AND DURABLY MARKED TO INDICATE ITS PURPOSE UNLESS SUCH PURPOSE IS CLEARLY EVIDENT. WHERE BUILDINGS OR STRUCTURES ARE SUPPLIED BY MORE THAN ONE POWER SOURCE, MARKINGS SHALL BE PROVIDED AT EACH SERVICE EQUIPMENT LOCATION AND AT ALL INTERCONNECTED ELECTRIC POWER PRODUCTION SOURCES IDENTIFYING ALL ELECTRIC POWER SOURCES AT THE PREMISES IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE PER 2022 CFC, SECTION 603.4.1.
5. REFER TO COPPER FEEDER SCHEDULE GENERAL NOTES ON SHEET EE606 TO ENSURE COMPLIANCE WITH CEC 300.17 REQUIREMENTS.

KEY NOTES

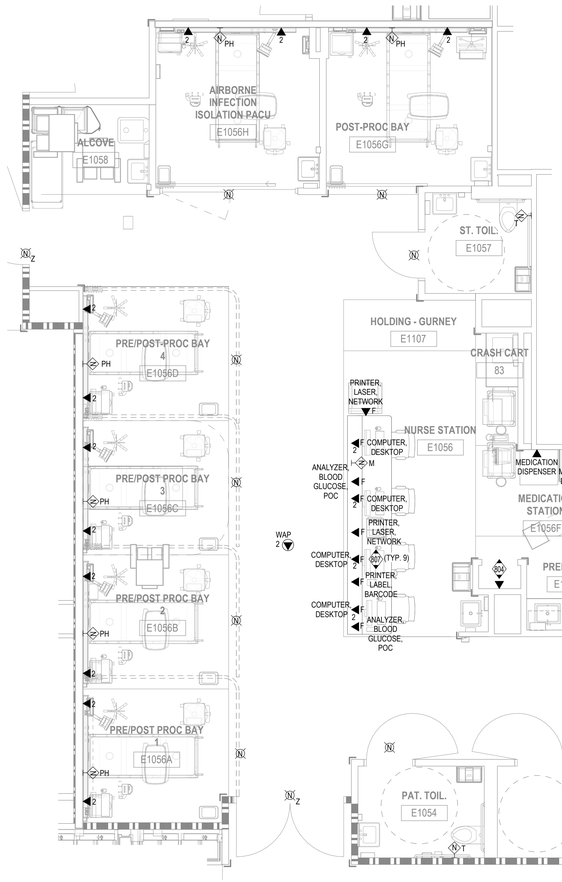
201	6 DUPLEX RECEPTACLES (4 CRITICAL, 2 NORMAL) INSTALLED WITHIN HEADWALL.
202	REFER TO STRUCTURAL DRAWING DETAILS A1, S504 AND A1, S507 FOR SEISMIC MOUNTING DETAILS FOR TRANSFORMERS AND PANELBOARDS.
207	PROVIDE 1 X 120V, 20A-1P AND 1 X 208V, 30A-1P CIRCUIT TERMINATED IN A SURFACE MOUNTED 4S BOX, ATTACHED TO THE LADDER RACK USING CPI POWER BOX BRACKET PART # TS1006073 (NO KNOWN EQUAL).
208	THE GROUNDING BUSBAR MUST BE CPI CHATSWORTH PRODUCTS PART #13622-020 (NO KNOWN EQUAL). THE BUSBAR MUST BE INSULATED FROM ITS SUPPORTING STRUCTURE BY AT LEAST TWO INCHES OF SEPARATION. BOND THE BUSBAR TO THE BUILDING AC GROUNDING ELECTRODE SYSTEM. THE MINIMUM SIZE OF THE BONDING CONDUCTOR WILL BE #3 AWG AND BE SIZED TO CARRY THE MAXIMUM SHORT TIME RATING AMPS OF THE BUILDING GROUNDING ELECTRODE CONDUCTOR. A SUPPLEMENTAL BONDING CONNECTION IS REQUIRED TO BE EXOTHERMICALLY WELDED TO THE STRUCTURAL STEEL OF THE BUILDING AND AC SUB PANEL FEEDING THE ELECTRICAL CIRCUITS IN THIS ROOM. RESISTANCE WILL BE NO MORE THAN 0.1 OHMS BETWEEN THE TMGB AND THE BUILDING MAIN GROUNDING SOURCE MEASURED FOLLOWING THE TWO-POINT BONDING TEST METHOD USING AN EARTH GROUND RESISTANCE TESTER. ALL GROUNDING CONDUCTORS MUST BE RUN IN EMT CONDUIT.
209	INTERCONNECT TELECOMMUNICATION GROUND BAR AND NEW ELECTRICAL ROOM GROUND BAR TO BUILDING GROUNDING SYSTEM IN NEAREST ELECTRICAL ROOM. WIRE SHALL BE 3/0 AND BE RUN IN EMT CONDUIT.
213	VERIFY EXACT LOCATION WITH PLUMBING DRAWINGS PRIOR TO INSTALLATION.
214	POWER AND DATA FOR NURSING STATION WILL BE SERVED FROM BELOW THROUGH SINGLE FLOOR PENETRATION. POWER/DATA CONDUIT WILL BE DISTRIBUTED WITHIN PONY WALL - COORDINATE WITH ARCHITECTURAL DETAILS PRIOR TO ROUGH-IN.
217	PROVIDE 120V POWER FOR MECHANICAL CONTROLS. COORDINATE EXACT LOCATION AND REQUIREMENTS FOR MECHANICAL EQUIPMENT PRIOR TO ROUGH-IN.
218	PROVIDE 120V POWER FOR FIRE SMOKE DAMPERS. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION AND REQUIREMENTS PRIOR TO ROUGH IN.
226	WALL SHALL BE 1-HOUR-FIRE RATED. ALL PENETRATIONS, FIXTURES AND INSTALLATIONS WITHIN OR THROUGH WALL SHALL BE FIRE RATED AND COMPLIANT.
804	DATA OUTLET DEDICATED FOR P-TUBE SYSTEM.
805	NEW RAULAND RESPONDER 5 NURSE TERMINAL CABINET SHALL BE CONNECTED TO THE EXISTING RAULAND NURSE TERMINAL CABINET LOCATED IN ROOM #F1079.
806	PROVIDE MERAKI CAMERA "MODEL-MV22X" AND TERMINATE AT THE NEW RACK LOCATED IN THE SAME ROOM.
807	ROUTE (1) 1-1/2" CONDUIT FROM MILLWORK TO NEAREST WALL, STUBBING ABOVE ACCESSIBLE PATHWAY. REFER TO DETAIL 9/EES02

CABINET ELEVATIONS		
RACK UNITS	19" EQUIPMENT RACK IDF RACK 1.3 [ER-WA]	
1	FIBER ENCLOSURE (NEW)	
2	WIRE MANAGEMENT [WM1]	
3	48-PORT PoE SWITCH (NEW)	
4	WIRE MANAGEMENT [WM1]	
5	48 PORT PATCH PANEL (NEW)	
6		
7	48-PORT PoE SWITCH (NEW)	
8	WIRE MANAGEMENT [WM1]	
9	48 PORT PATCH PANEL (NEW)	
10		
11	48-PORT PoE SWITCH (NEW)	
12	WIRE MANAGEMENT [WM1]	
13	48 PORT PATCH PANEL (NEW)	
14		
15	48-PORT PoE SWITCH (NEW)	
16	WIRE MANAGEMENT [WM1]	
17	48 PORT PATCH PANEL (NEW)	
18		
19	SPACE RESERVED FOR OWNER EQUIPMENT	VERTICAL PDU [PDF/B]
20		
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43	UPS [UPS/A]	
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VERTICAL PDU [PDF/B]

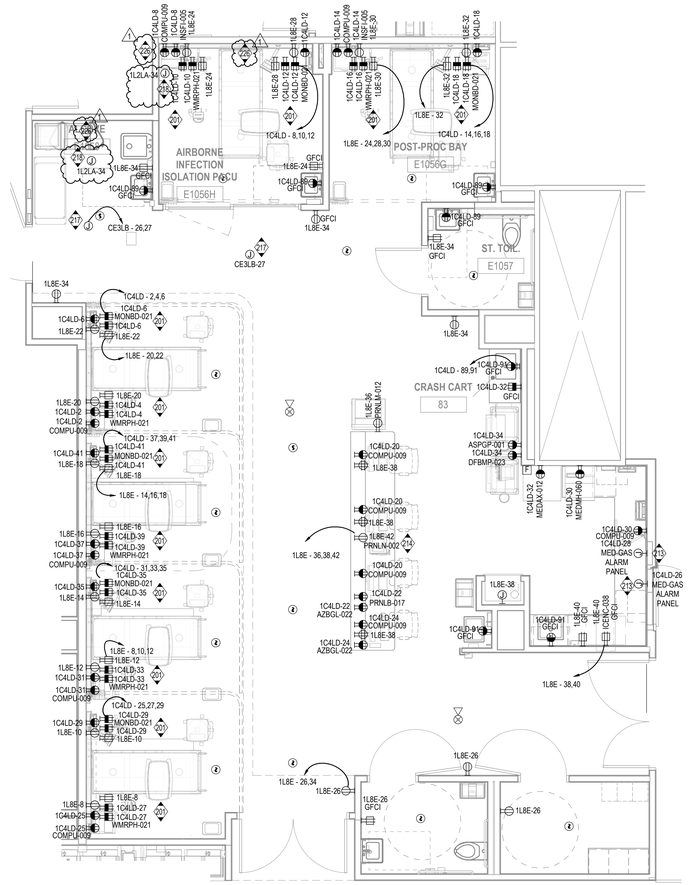
5 NEW RACK ELEVATION - IT CLOSET # E1074

NTS



3 LEVEL 1 - TELECOMM ENLARGED PLAN - NURSE STATION

1/4" = 1'-0"



1 LEVEL 1 - ELECTRICAL ENLARGED POWER PLAN - NURSE STATION

1/4" = 1'-0"

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REGISTERED PROFESSIONAL ENGINEER VINCENT WU C-26611 EXP. 06/30 ELECTRICAL STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	04/30/2025

FILE LOG

ACTIVITY	BY
Design	RY
Draw	Author
Check	PH
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

ELECTRICAL TELECOMM ENLARGED PLANS

SHEET NUMBER

EE202

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PANEL	AVAILABLE FAULT CURRENT (A)	VD%
1C4DBA	18371.06	1.18
CE3JB	4242.42	0.46
1C4DPA	17462.47	1.24
CE3DPB	6601.13	0.83
1C4HB	12137.74	1.54
1C4LD	5991.54	1.83
1DP8A	11972.13	0.57
1H7B	10159.16	1.84
1L2HA	6698.79	1.39
1L2LA	3950.64	0.74
1JE	6586.39	1.17
ATS-C4-1	22750.19	0.9
ATS-L3-1	21912.42	0.89
CB-1	12201.16	1.49
CB-2	8990.08	1.73
DSB-7	23300	0.87
DSB-8	25200	0.22
LDP7A	18200	0.87
LL3DPA	20667.49	0.9
MDP-1	12323.48	1.48
MDP-2	9067.5	1.72

LOAD SUMMARY - PANEL "1DP8A"

EXISTING LOAD			
3 DAY LOAD RECORDING X 1.25	=	12.00	kVA
REMOVED LOAD	=	0.00	kVA
ADDED LOAD	=	27.85	kVA
TOTAL LOAD	=	**39.85**	**kVA**
AMPS @ 208Y/120V, 3Ø, 4W	=	111	A
MAIN BUS RATING	=	400	A

LOAD SUMMARY - PANEL "1H7B"

EXISTING LOAD			
3 DAY LOAD RECORDING X 1.25	=	20.50	kVA
REMOVED LOAD	=	0.00	kVA
ADDED LOAD	=	6.83	kVA
TOTAL LOAD	=	**27.33**	**kVA**
AMPS @ 480Y/277V, 3Ø, 4W	=	33	A
MAIN BUS RATING	=	225	A

LOAD SUMMARY - PANEL "DSB-2"

EXISTING LOAD			
30 DAY LOAD RECORDING X 1.25	=	775.25	kVA
REMOVED LOAD	=	0.00	kVA
ADDED LOAD	=	84.45	kVA
TOTAL LOAD	=	**859.70**	**kVA**
AMPS @ 480Y/277V, 3Ø, 4W	=	1034	A
MAIN BUS RATING	=	2000	A

LOAD SUMMARY - PANEL "1L2HA"

EXISTING LOAD			
3 DAY LOAD RECORDING X 1.25	=	10.50	kVA
REMOVED LOAD	=	0.00	kVA
ADDED LOAD	=	4.33	kVA
TOTAL LOAD	=	**14.83**	**kVA**
AMPS @ 480Y/277V, 3Ø, 4W	=	18	A
MAIN BUS RATING	=	100	A

LOAD SUMMARY - PANEL "1L2LA"

EXISTING LOAD			
3 DAY LOAD RECORDING X 1.25	=	4.38	kVA
REMOVED LOAD	=	0.00	kVA
ADDED LOAD	=	3.13	kVA
TOTAL LOAD	=	**7.51**	**kVA**
AMPS @ 208Y/120V,3P,4W	=	21	A
MAIN BUS RATING	=	50	A

LOAD SUMMARY - PANEL "CE3DBA"

EXISTING LOAD			
30 DAY LOAD RECORDING X 1.25	=	224.13	kVA
REMOVED LOAD	=	0.00	kVA
ADDED LOAD (CE3DPB)	=	84.45	kVA
TOTAL LOAD	=	**308.58**	**kVA**
AMPS @ 480Y/277V, 3Ø, 4W	=	371	A
MAIN BUS RATING	=	800	A

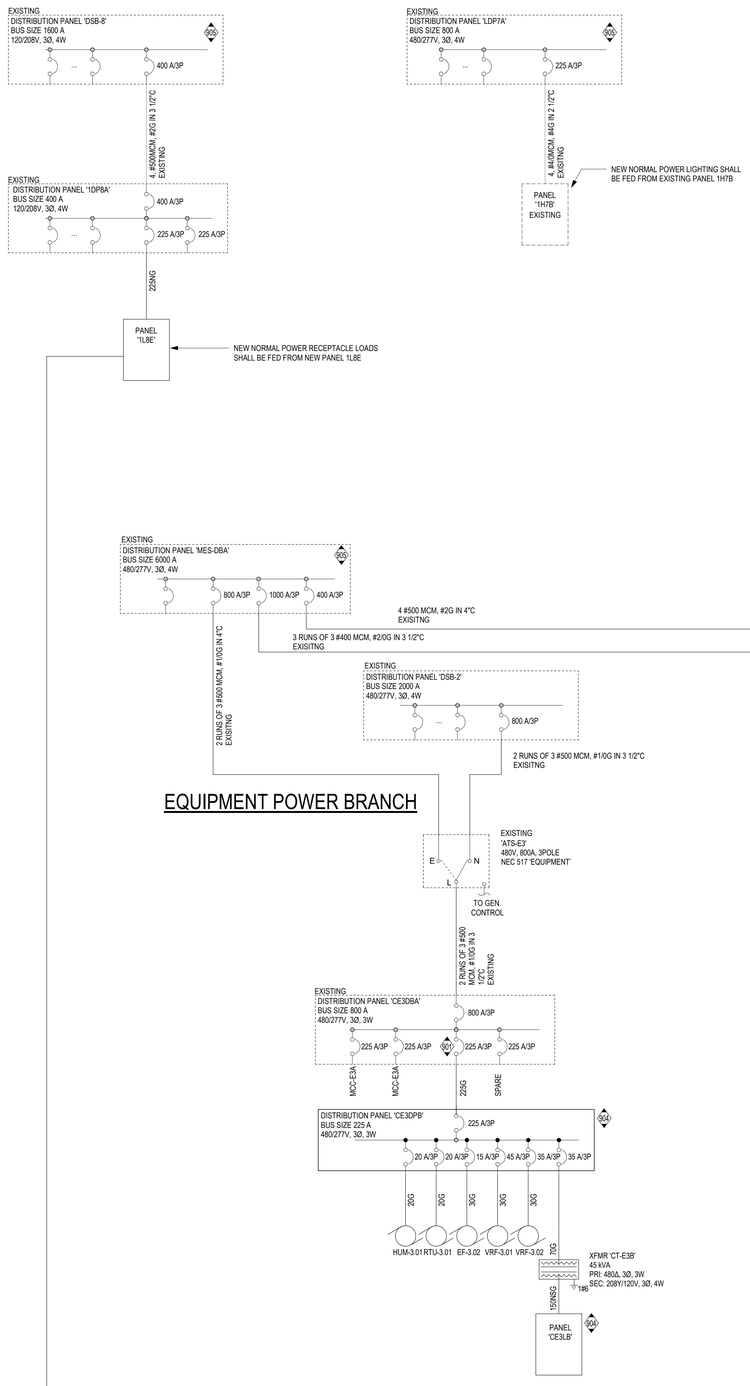
LOAD SUMMARY - PANEL "1C4DBA"

EXISTING LOAD			
3 DAY LOAD RECORDING X 1.25	=	132.38	kVA
REMOVED LOAD	=	0.00	kVA
ADDED LOAD (1C4DPA ADDED LOAD)	=	245.40	kVA
TOTAL LOAD	=	**377.78**	**kVA**
AMPS @ 480Y/277V, 3Ø, 4W	=	454	A
MAIN BUS RATING	=	800	A

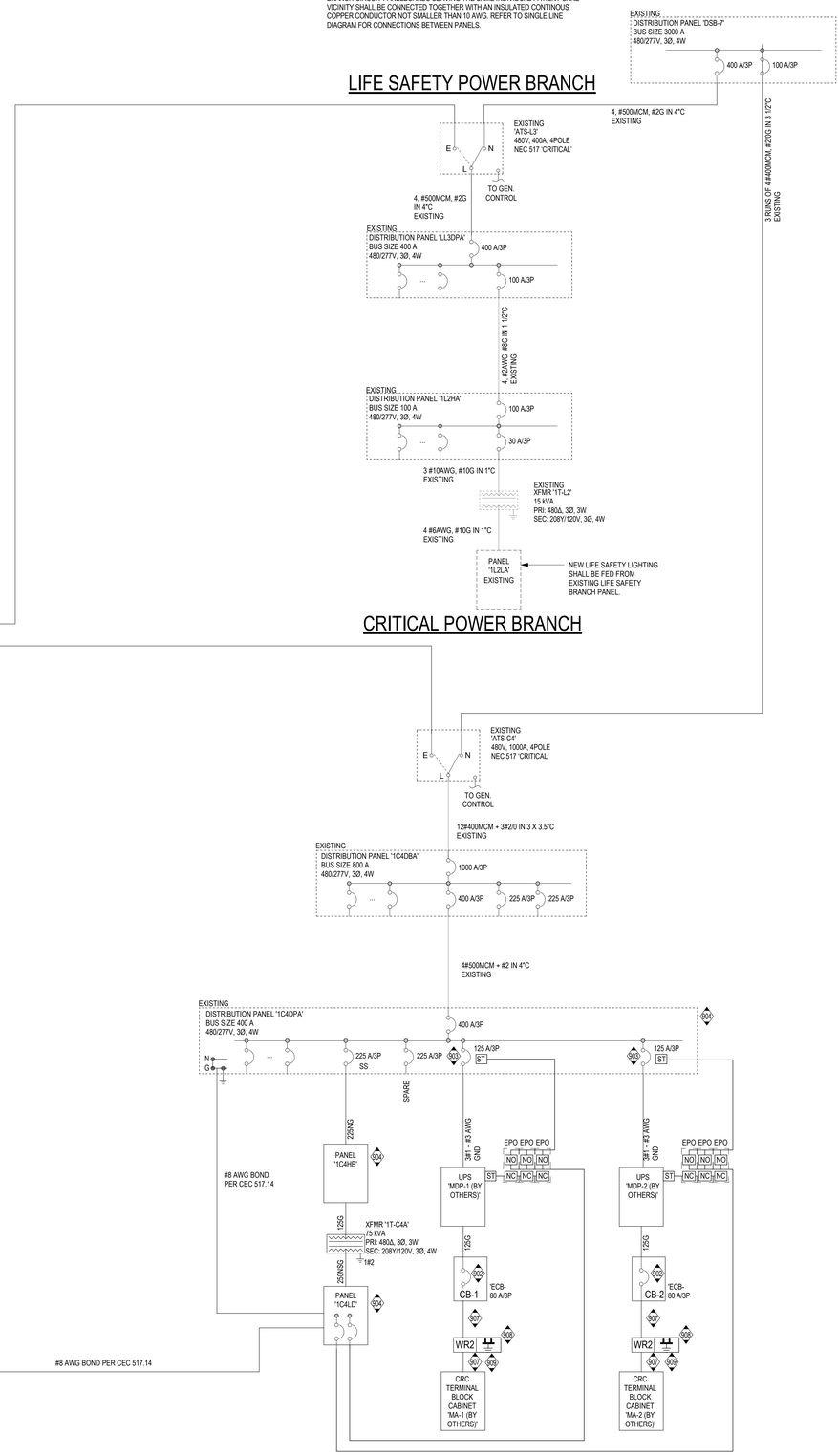
LOAD SUMMARY - PANEL "1C4DPA"

EXISTING LOAD			
3 DAY LOAD RECORDING X 1.25	=	23.88	kVA
REMOVED LOAD	=	0.00	kVA
ADDED LOAD (1C4HB)	=	45.35	kVA
ADDED LOAD (UPS MDP-1)	=	100.00	kVA
ADDED LOAD (UPS MDP-2)	=	100.00	kVA
TOTAL LOAD	=	**245.35**	**kVA**
AMPS @ 480Y/277V, 3Ø, 4W	=	295	A
MAIN BUS RATING	=	400	A

NORMAL POWER BRANCH



LIFE SAFETY POWER BRANCH



EQUIPMENT POWER BRANCH

CRITICAL POWER BRANCH

GENERAL NOTES:

1. ALL NEW ELECTRICAL EQUIPMENT SHALL BE SIEMENS/WESTINGHOUSE TO MATCH EXISTING.
2. THE SCOPE SHOWN ON THESE DRAWINGS REFLECTS THE BASE BUILDING RENOVATION SCOPE REQUIRED TO SUPPORT THE INSTALLATION OF THE NEW PHILIPS AZURION SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORK SHOWN HERE AS WELL AS THE WORK REQUIRED TO FACILITATE INSTALLATION OF THE PHILIPS EQUIPMENT IDENTIFIED IN THE PHILIPS DRAWINGS. REFER TO R1 SERIES ARCHITECTURAL DRAWINGS WHICH CONTAIN SITE SPECIFIC VENDOR DRAWINGS FOR DETAILS. CONTRACTOR MUST REVIEW THESE DOCUMENTS IN CONJUNCTION WITH THESE ELECTRICAL PLANS TO DETERMINE THE FULL SCOPE OF WORK. DETAILED SCOPE DELINEATION IS PROVIDED ON PHILIPS SHEET EL1/EL2.
3. POWER QUALITY REQUIREMENTS SHALL BE IN ACCORDANCE WITH PHILIPS REQUIREMENTS NOTED ON PHILIPS DRAWING ED1.
4. BRANCH CIRCUIT AND WIRE GUAGRE REQUIREMENTS SHALL BE IN ACCORDANCE WITH PHILIPS REQUIREMENTS NOTED ON PHILIPS DRAWING ED1.
5. ALL SWITCHGEAR AND PANELBOARDS SHALL BE PROVIDED WITH FIELD MAKRINGS FOR THE AVAILABLE FAULT CURRENT AT THE EQUIPMENT TERMINALS WITH THE DATE THAT THE FINAL CALCULATION WAS COMPLETED
6. THE EQUIPMENT GROUNDING TERMINAL BUSES OF THE NORMAL AND ESSENTIAL BRANCH-CIRCUIT PANELBOARDS SERVING THE SAME INDIVIDUAL PATIENT CARE VICINITY SHALL BE CONNECTED TOGETHER WITH AN INSULATED CONTINUOUS COPPER CONDUCTOR NOT SMALLER THAN 10 AWG. REFER TO SINGLE LINE DIAGRAM FOR CONNECTIONS BETWEEN PANELS.

KEY NOTES

- 901 UTILIZE EXISTING 225A-3P SPARE BREAKER WITHIN CE3DBA TO FEED NEW EQUIPMENT BRANCH DISTRIBUTION BOARD CE3DPB
- 902 PROVIDE AND 80/3 CIRCUIT BREAKER IN ACCORDANCE WITH VENDOR DRAWINGS. REFER TO GENERAL NOTE 6 ON SHEET EE203 FOR ADDITIONAL INFORMATION.
- 903 USE EXISTING PREPARED SPACES FOR NEW FEEDS TO IMAGING EQUIPMENT. COORDINATE WITH EXISTING EQUIPMENT TO ENSURE COMPATIBLE BREAKERS ARE USED. PROVIDE BREAKERS WITH SHUNT TRIP FUNCTIONALITY AND INTERCONNECT WITH EMERGENCY POWER OFF DEVICES WITHIN CATH LAB, EQUIPMENT ROOM AND CONTROL ROOM.
- 904 PROVIDE SPDS ON ALL SWITCHBOARDS AND PANELBOARDS CONNECTED TO THE ESSENTIAL ELECTRICAL DISTRIBUTION.
- 905 PER OSHPD PIN 38, THE ENGINEER OF RECORD HAS VERIFIED THAT THIS EQUIPMENT, FEEDER AND OCPD HAS SUFFICIENT CAPACITY FOR THE LOAD ADDED.
- 907 3#4AWG + #4AWG INSULATED EQUIPMENT GROUNDING CONDUCTOR.
- 908 PROVIDE GROUND BAR AND GROUND WIRING IN ACCORDANCE WITH VENDOR DRAWINGS. REFER TO GENERAL NOTE 6 ON SHEET EE203 FOR ADDITIONAL INFORMATION.
- 909 CRC TERMINAL BLOCK CABINET MA-1 AND MA-2 HAVE A MOMENTARY RATING OF 125A AT 480V AND A LONG TERM RATING OF 63A AT 480V.

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ELECTRICAL DIAGRAMS

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EE601

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PANELBOARD: 1H7B

(EXISTING)

VOLTAGE : 480Y/277V, 3Ø, 4W
BUS RATING : 225 A
MAIN : 225
BRANCH TYPE : NORMAL

CB OPT : **ST** – SHUNT TRIP, **FR** – 100% RATED, **L** – LOCKABLE
AF – ARC FAULT CIRCUIT INTERRUPTER
GF – GROUND FAULT CIRCUIT INTERRUPTER
EQ – ELECTRICALLY OPERATED, **SS** – SOLID STATE
ERMS – ENERGY-REDUCING MAINTENANCE SWITCH
EP – EQUIPMENT GROUND FAULT (30mA)...

A.I.C. RATING: 14kA
MOUNTING: SURFACE
ENCLOSURE:

LOAD TYPE	CKT NO	LOAD SERVED	CB	P	CB OPT	A (VA)		B (VA)		C (VA)		CB OPT	P	CB	LOAD SERVED	CKT NO	LOAD TYPE
--	1	CLERICAL OFFIC <x>	20	1	--	0	0					--	1	20	ADMITTING TOILETS <x>	2	--
--	3	CLERKS AV OFFICES <x>	20	1	--			0	0			--	1	20	GIFT SHOP <x>	4	--
--	5	OFFICE STORAGE <x>	20	1	--					0	0	--	1	20	CORRIDOR <x>	6	--
--	7	PASSAGE TREATMENT RM <x>	20	1	--	0	0					--	1	20	OFFICES <x>	8	--
--	9	TREATMENT RM CARDIO <x>	20	1	--			0	0			--	1	20	THERAPY <x>	10	--
--	11	PHYSICAL THERAPY <x>	20	1	--					0	0	--	1	20	EXAM RMS, TOILETS, CORR <x>	12	--
--	13	EXAM ROOMS <x>	20	1	--	0	0					--	1	20	EXAM, WAITING, OFFICES <x>	14	--
--	15	TOILET ,CONTROL, ,CORR <x>	20	1	--			0	0			--	1	20	INFUSION CENTER <x>	16	--
--	17	WAITING <x>	20	1	--					0	0	--	1	20	INFUSION CENTER <x>	18	--
--	19	EAST ENTRY <x>	20	1	--	0	0					--	1	20	OCCUP. THERAPY OFFICE <x>	20	--
--	21	MAIN CORRIDOR <x>	20	1	--			0	0			--	1	20	MAIN ENTRY <x>	22	--
--	23	MAIN LOBBY, CORRIDOR <x>	20	1	--					0	0	--	1	20	MAIN ENTRY <x>	24	--
--	25	CORRIDOR <x>	20	1	--	0	0					--	1	20	WAITING, LOBBY, CORRIDOR <x>	26	--
--	27	CORRIDOR <x>	20	1	--			0	88				1	20	E1051	28	LIGHTING
--	29	NEW VISITOR LOUNGE <x>	20	1	--					0	432		1	20	E1034;E1039;E1040	30	LIGHTING
LIGHTING	31	E1051	20	1		273	222						1	20	E1046;E1072;E1073,E1073	32	LIGHTING
LIGHTING	33	E1059	20	1				96	48				1	20	E1043;E1044,E1045	34	LIGHTING
LIGHTING	35	E1045;E1055,E1053,E1056	20	1						302	933		1	20	E1056,E1057	36	LIGHTING
LIGHTING	37	E1051; E052	20	1		1168	1216						1	20	E1047,E1048	38	LIGHTING
LIGHTING	39	E1076,E1077,E1078	20	1				411	271				1	20	E1041;E1060;E1061;E1062,E1071	40	LIGHTING
--	41	SPARE	20	1	--					0	0	--	1	20	SPARE	42	--
					TOTAL LOAD:	2879 VA		914 VA		1667 VA							
					FEED THROUGH LOAD:	0 VA		0 VA		0 VA							

PANEL CALCULATIONS : LOAD TYPE	CONNECTED LOAD
LIGHTING	5460 VA

DEMAND FACTOR LEGEND

ELEVATOR	PER NEC 620.14	MOTOR	100%	
HOTEL	PER NEC 220.42	HEAT	100%	
KITCHEN	PER NEC 220.56	MISC	100%	
RECEPTACLE	PER NEC 220.44	LIGHTING	125%	
RECEPT(HEALTHCARE)	PER NEC 220.42	LARGEST MOTOR	125%	
UNIT PANEL	PER NEC 220.84	NON-COINCIDENT...	100%	
X-RAY	PER NEC 517.73(2)	EV CHARGE	125%	

PANEL TOTALS	
TOTAL CONNECTED LOAD	5460 VA
TOTAL DEMAND LOAD	6825 VA
TOTAL DEMAND CURRENT	8 A
VOLTAGE	480Y/277V, 3Ø, 4W
SPARE LOAD CAPACITY %	
PANEL AMPS	8 A

NOTES & SPECIAL OPTIONS:
PROVIDE WITH FEED THROUGH LUGS.

PANELBOARD: 1L2HA

(EXISTING)

VOLTAGE : 480Y/277V, 3Ø, 4W
BUS RATING : 125 A
MAIN : 100 A
BRANCH TYPE : LIFE SAFETY

CB OPT : **ST** – SHUNT TRIP, **FR** – 100% RATED, **L** – LOCKABLE
AF – ARC FAULT CIRCUIT INTERRUPTER
GF – GROUND FAULT CIRCUIT INTERRUPTER
EQ – ELECTRICALLY OPERATED, **SS** – SOLID STATE
ERMS – ENERGY-REDUCING MAINTENANCE SWITCH
EP – EQUIPMENT GROUND FAULT (30mA)...

A.I.C. RATING: 14kA
MOUNTING: SURFACE
ENCLOSURE:

LOAD TYPE	CKT NO	LOAD SERVED	CB	P	CB OPT	A (VA)		B (VA)		C (VA)		CB OPT	P	CB	LOAD SERVED	CKT NO	LOAD TYPE
--	1	PHARMACY, LOBBY, COR <x>	20	1	--	0	0					--	1	20	CORRIDOR <x>	2	--
--	3	EXTERIOR ENTRY <x>	20	1	--			0	0			--	1	20	STAIRS, MAIN LOBBY, BR <x>	4	--
--	5	CORRIDOR <x>	20	1	--					0	0	--	1	20	SPARE	6	--
--	7	CLASSROOM CAN LTS <x>	20	1	--	0	0					--	1	20	SPARE	8	--
--	9	EOC RM A1019 <x>	20	1	--			0	0			--	1	20	SPARE	10	--
LIGHTING	11	E1040;E1041;E1062	20	1						240	0	--	1	20	SPARE	12	--
LIGHTING	13	E1046,E1053,E1072;1078	20	1		528	0					--	1	20	SPARE	14	--
LIGHTING	15	E1059	20	1				192	0			--	1	20	SPARE	16	--
--	17	SPARE	20	1	--					0	0	--	1	20	SPARE	18	--
--	19	SPARE	20	1	--	0	626									20	
--	21	SPARE	20	1	--			0	1900				3	20	1T-L2; E1036	22	LIGHTING; MISC; SPARE
--	23	SPARE	20	1	--					0	600					24	
--	25	SPARE	20	1	--	0	0					--	1	20	SPARE	26	--
--	27	SPARE	20	1	--			0	0			--	1	20	SPARE	28	--
--	29	SPARE	20	1	--					0	0	--	1	20	SPARE	30	--
--	31	SPARE	20	1	--	0	0					--	1	20	SPARE	32	--
--	33	SPARE	20	1	--			0	0			--	1	20	SPARE	34	--
--	35	SPARE	20	1	--					0	0	--	1	20	SPARE	36	--
--	37	SPARE	20	1	--	0	0					--	1	20	SPARE	38	--
--	39	SPARE	20	1	--			0	0			--	1	20	SPARE	40	--
--	41	SPARE	20	1	--					0	0	--	1	20	SPARE	42	--
					TOTAL LOAD:	1154 VA		2092 VA		840 VA							
					FEED THROUGH LOAD:	0 VA		0 VA		0 VA							

PANEL CALCULATIONS : LOAD TYPE	CONNECTED LOAD
LIGHTING	986 VA
MISC	3100 VA

DEMAND FACTOR LEGEND

ELEVATOR	PER NEC 620.14	MOTOR	100%	
HOTEL	PER NEC 220.42	HEAT	100%	
KITCHEN	PER NEC 220.56	MISC	100%	
RECEPTACLE	PER NEC 220.44	LIGHTING	125%	
RECEPT(HEALTHCARE)	PER NEC 220.42	LARGEST MOTOR	125%	
UNIT PANEL	PER NEC 220.84	NON-COINCIDENT...	100%	
X-RAY	PER NEC 517.73(2)	EV CHARGE	125%	

PANEL TOTALS	
TOTAL CONNECTED LOAD	4086 VA
TOTAL DEMAND LOAD	4332 VA
TOTAL DEMAND CURRENT	5 A
VOLTAGE	480Y/277V, 3Ø, 4W
SPARE LOAD CAPACITY %	
PANEL AMPS	5 A

NOTES & SPECIAL OPTIONS:
PROVIDE WITH FEED THROUGH LUGS.

PANELBOARD: CE3LB

VOLTAGE : 208Y/120V, 3Ø, 4W
BUS RATING : 225 A
MAIN : 150A
BRANCH TYPE : EQUIPMENT

CB OPT : **ST** – SHUNT TRIP, **FR** – 100% RATED, **L** – LOCKABLE
AF – ARC FAULT CIRCUIT INTERRUPTER
GF – GROUND FAULT CIRCUIT INTERRUPTER
EQ – ELECTRICALLY OPERATED, **SS** – SOLID STATE
ERMS – ENERGY-REDUCING MAINTENANCE SWITCH
EP – EQUIPMENT GROUND FAULT (30mA)...

A.I.C. RATING: 22kA
MOUNTING: SURFACE
ENCLOSURE:

LOAD TYPE	CKT NO	LOAD SERVED	CB	P	CB OPT	A (VA)		B (VA)		C (VA)		CB OPT	P	CB	LOAD SERVED	CKT NO	LOAD TYPE
MOTORS	1	HU 1.01	45	2		3744	180						1	20	CWASC-011;E1040	2	MISC
	3							3744	1872				2	25	HU-1.03	4	MOTORS
MISC	5	MECHANICAL CONTROLS;E1051	15	1						200	1872					6	
MOTORS	7	VRFI 1.04	15	2		66	66						2	15	VRFI 1.03	8	MOTORS
	9							66	66							10	
MISC	11	VRFI 1.04-PUMP	15	1						180	0		1	15	VRFI 1.03-PUMP	12	MISC
MOTORS	13	HU 1.02	45	2		3744	180						1	15	VRFI 1.02-PUMP;E1052	14	MISC
	15							3744	456				2	15	VRFI 1.02	16	MOTORS
MISC	17	VRFI 1.01 - PUMP	15	1						180	456					18	
MOTORS	19	VRFI 1.01	15	2		456	180						1	20	MECHANICAL CONTROLS;E1050	20	MISC
	21							456	180				1	20	MECHANICAL CONTROLS;E1049	22	MISC
MISC	23	RTU 3.01 - CNTRL	20	1						180	180		1	20	RTU 3.01 - LTG	24	MISC
MOTORS	25	EF 3.01	20	1		696	2400						1	30	MISC ALCOVE E1058	26	MISC
MISC	27	MECHANICAL CONTROLS; E1053	20	1				180	180				1	20	VRF PANEL, ROOF	28	MISC
	29															30	
	31															32	
	33															34	
	35															36	
	37															38	
	39															40	
	41															42	
					TOTAL LOAD:	11711 VA		10942 VA		3248 VA							
					FEED THROUGH LOAD:	0 VA		0 VA		0 VA							

PANEL CALCULATIONS : LOAD TYPE	CONNECTED LOAD
MISC	4400 VA
MOTORS	21500 VA

DEMAND FACTOR LEGEND

ELEVATOR	PER NEC 620.14	MOTOR	100%	
HOTEL	PER NEC 220.42	HEAT	100%	
KITCHEN	PER NEC 220.56	MISC	100%	
RECEPTACLE	PER NEC 220.44	LIGHTING	125%	
RECEPT(HEALTHCARE)	PER NEC 220.42	LARGEST MOTOR	125%	
UNIT PANEL	PER NEC 220.84	NON-COINCIDENT...	100%	
X-RAY	PER NEC 517.73(2)	EV CHARGE	125%	

PANEL TOTALS	
TOTAL CONNECTED LOAD	25900 VA
TOTAL DEMAND LOAD	27772 VA
TOTAL DEMAND CURRENT	77 A
VOLTAGE	208Y/120V, 3Ø, 4W
SPARE LOAD CAPACITY %	
PANEL AMPS	77 A

NOTES & SPECIAL OPTIONS:
PROVIDE WITH FEED THROUGH LUGS.

PANELBOARD: 1L2LA

(EXISTING)

VOLTAGE : 208Y/120V, 3Ø, 4W
BUS RATING : 100 A
MAIN : 50 A
BRANCH TYPE : LIFE SAFETY

CB OPT : **ST** – SHUNT TRIP, **FR** – 100% RATED, **L** – LOCKABLE
AF – ARC FAULT CIRCUIT INTERRUPTER
GF – GROUND FAULT CIRCUIT INTERRUPTER
EQ – ELECTRICALLY OPERATED, **SS** – SOLID STATE
ERMS – ENERGY-REDUCING MAINTENANCE SWITCH
EP – EQUIPMENT GROUND FAULT (30mA)...

A.I.C. RATING: 10kA
MOUNTING: SURFACE
ENCLOSURE:

LOAD TYPE	CKT NO	LOAD SERVED	CB	P	CB OPT	A (VA)		B (VA)		C (VA)		CB OPT	P	CB	LOAD SERVED	CKT NO	LOAD TYPE
--	1	COM CLOSET <x>	20	1	--	0	0					--	1	20	FIRE-FLY <x>	2	--
--	3	COM CLOSET <x>	20	1	--			0	0			--	1	20	FIRE-FLY <x>	4	--
--	5	COM CLOSET <x>	20	1	--					0	0	--	1	20	FIRE-FLY <x>	6	--
--	7	COM CLOSET <x>	20	1	--	0	0					--	1	20	SFD <x>	8	--
--	9	COM CLOSET <x>	20	1	--			0	0			--	1	20	SFD <x>	10	--
--	11	CANOPY-EAST <x>	20	1	--					0	0	--	1	20	SPARE	12	--
--	13	CANOPY-SOUTH <x>	20	1	--	0	0					--	1	20	FAC-2 <x>	14	--
--	15	COM CLOSET <x>	20	1	--			0	0			--	1	20	FAC-2 <x>	16	--
--	17	POWER SUPPLY P54 <x>	20	1	--					0	0	--	1	20	SPARE	18	--
--	19	VISITOR LNG DOOR <x>	20	1	--	0	0					--	1	20	EOC-A1019 FL RECPT <x>	20	--
--	21	SPARE	20	1	--			0	0			--	1	20	EOX-A1019 COUNT RECPT <x>	22	--
--	23	SPARE	20	1	--					0	0	--	1	20	EOC-A1019 TV <x>	24	--
--	25	EOC-A1019 FL RECPT <x>	20	1	--	0	0					--	1	20	EOC-A1019 RECPT <x>	26	--
--	27	EOC-A1019 TV <x>	20	1	--			0	0			--	1	20	EOC-A1019 RECPT <x>	28	--
--	29	EOC-A1019 FL RECPT <x>	20	1	--					0	0	--	1	20	EOC-A1019 TV <x>	30	--
LIGHTING	31	EXIT LIGHTING; E1040,E1046;	20	1		13	13						1	20	EXIT LIGHTING-E1073	32	LIGHTING
MISC	33	DOOR HOLD DEVICES;...	20	1					600	700			1	20	FIRE SMOKE DAMPER; E1072, E1058	34	MISC
MISC	35	FIRE SMOKE DAMPER; E1043	20	1							600		1	20	SPARE	36	--
MISC	37	DOOR OPERATOR DEVICES; E1046	20	1		600	0					--	1	20	SPARE	38	--
MISC	39	DOOR OPERATOR DEVICES E1072...	20	1				600	0			--	1	20	SPARE	40	--
--	41	SPARE	20	1	--					0	0	--	1	20	SPARE	42	--
					TOTAL LOAD:	626 VA		1900 VA		600 VA							
					FEED THROUGH LOAD:	0 VA		0 VA		0 VA							

PANEL CALCULATIONS : LOAD TYPE	CONNECTED LOAD
LIGHTING	26 VA
MISC	3100 VA

DEMAND FACTOR LEGEND

ELEVATOR	PER NEC 620.14	MOTOR	100%	
HOTEL	PER NEC 220.42	HEAT	100%	
KITCHEN	PER NEC 220.56	MISC	100%	
RECEPTACLE	PER NEC 220.44	LIGHTING	125%	
RECEPT(HEALTHCARE)	PER NEC 220.42	LARGEST MOTOR	125%	
UNIT PANEL	PER NEC 220.84	NON-COINCIDENT...	100%	
X-RAY	PER NEC 517.73(2)	EV CHARGE	125%	

PANEL TOTALS	
TOTAL CONNECTED LOAD	3126 VA
TOTAL DEMAND LOAD	3132 VA
TOTAL DEMAND CURRENT	9 A
VOLTAGE	208Y/120V, 3Ø, 4W
SPARE LOAD CAPACITY %	
PANEL AMPS	9 A

NOTES & SPECIAL OPTIONS:
PROVIDE WITH FEED THROUGH LUGS.

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KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	04/30/2025

FILE LOG

ACTIVITY	BY
Design	RY
Draw	Author
Check	PH
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
ELECTRICAL PANEL SCHEDULES

SHEET NUMBER
EE604

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SECTION 08 81 10 – INTERIOR GLASS GLAZING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Tempered glass.
   2. Fire-resistant glass ceramic material.
   3. Ceramic-coated spandrel glass
   4. Supplementary components and accessories normally furnished or necessary for a complete installation, whether or not such items are indicated on the Drawings or included in the Specifications.

B. Related Requirements:
   1. Section 08 83 13 for mirrored glass.

1.2 REFERENCES

A. Definitions:
   1. Manufacturer: Means the primary glass manufacturer, unless otherwise indicated.
   2. Fabricator: Means the secondary glass fabricator, unless otherwise indicated.

1.3 ADMINISTRATIVE REQUIREMENTS

A. Performance Requirements:
   1. Minimum Glass Bite Depth: At least 3/8-inch glass bite depth for 6mm (nominal 1/4-inch) monolithic lites, unless otherwise indicated.
   2. Minimum Edge Clearance: At least 1/4-inch for 6mm (nominal 1/4-inch) monolithic lites, unless otherwise indicated
   3. Minimum Face Clearance: At least 1/8-inch inch for 6mm (nominal 1/4-inch) monolithic lites, unless otherwise indicated.
   4. Safety Glazing Requirements: Provided either fully tempered or laminated glass conforming to ANSI Z97.1 requirements for Drop Height Class A wherever safety glazing is indicated or required. Wire glass is prohibited.
   5. Other Requirements: Installed glass must be free from rattle.

1.4 SUBMITTALS

A. Action Submittals: Submit the following for responsive action (formal review and approval).

1. Product Data: Submit manufacturer's product data, specifications, and all other information necessary to show conformance to the Contract Documents, excluding material safety data sheets (MSDSs) and safety data sheets (SDSs), both of which are returned to the Contractor without review or responsive action.
2. Glazing Schedule: Submit glazing schedule indicating glazing types, locations, sizes, thicknesses, and extents.
3. Samples: Submit at least 8-inch square representative samples of each glass type, color, finish, and variety.

B. Informational Submittals: Submit written descriptions confirming experience specified in QUALITY ASSURANCE article below.

1.5 QUALITY ASSURANCE

A. Source Limitations: Glazing must be obtained through one source from the same manufacturer (to ensure compatibility, regulatory conformance, and a warrantable installation).
1. Certain items may be obtained from more than one manufacturer, but only when used for separate installations.
2. Items provided for each different installation must be obtained from the same source and manufacturer.

B. Safety Glazing Certification:
1. Each pane of safety glass delivered to the project site must be furnished with a permanent identification label or mark that identifies the labeler and indicates that safety glazing material is utilized for the installation. Each label must be permanently affixed in a location such that the label remains visible after the pane of glass is installed.
2. Each pane of tempered glass delivered to the project site must be furnished with a permanent identification label or mark etched or ceramic-fired onto the glass surface that identifies the manufacturer or fabricator and indicates that tempered glass is utilized for the installation. Each label or mark must be permanently affixed in a location such that the label or mark remains visible after the pane of glass is installed.

C. Qualifications:
1. Manufacturer: Company or individuals must have at least 10 years' experience manufacturing glazing installed on at least 200 previous projects similar to this project in size, material, design, and complexity.
2. Fabricator: Company or individuals must have at least 10 years' experience fabricating glazing installed on at least 100 previous projects similar to this project in size, material, design, and complexity.
3. Installer: Company or individuals must have at least 5 years' experience installing glazing for at least 30 previous projects similar to this project in size, material, design, and complexity.

4. Supervisors: Individuals must have at least 7 years' experience installing glazing for at least 30 previous projects similar to this project in size, material, design, and complexity, including at least 2 years' supervisory experience directing and leading glazing installers.

1.6 HANDLING

A. Receiving: Inspect all deliveries for deteriorated, damaged, and defective items.
   1. Reject items that are not packaged in a manner that prevents damage; or that exhibit deterioration or damage or have damaged or open packaging or containers.
   2. Unload and store only inspected and accepted items.

B. Storage: Store unloaded items as shipped and in conformance with manufacturer's instructions and other requirements and recommendations for storage. Furnish adequate dunnage and bracing during storage.
   1. Prevent stored items from contacting the floor or ground, from soiling and staining, and from deterioration and damage.
   2. If items are not stored in an enclosed location, then cover the tops and sides with securely-tied, waterproof, and breathable covers. Unvented polyethylene tarpaulins do not qualify as breathable covers and are prohibited. (due to potential accumulation of moisture beneath tarpaulin during certain environmental conditions)
   3. Incline covered items to ensure maximum drainage of accumulated moisture.
   4. Do not leave items uncovered where they might be exposed to weather or become wet; or exposed to other sources of deterioration and damage.

C. Handling: Handle items in conformance with manufacturer's instructions and other requirements and recommendations, and in a manner that that prevents damage.

D. Damaged Item Replacement: Promptly remove and replace deteriorated, damaged, or defective glass with undamaged new glass that do not exhibit deterioration, damage, or defects.

E. Packaging Waste Management: Do not burn or bury construction waste at the project site. Remove and legally dispose of all construction waste away from the project site.

PART 2 - PRODUCTS

2.1 PRIMARY GLASS MANUFACTURERS

A. Manufacturers: Provide products manufactured by one of the following, or equal.
   1. Guardian Industries Corp.
   2. Pilkington North America, Inc.
   3. PPG Industries.

4. Saint-Gobain Corp.

2.2 MANUFACTURED GLASS

A. Ultra-Clear (Low Iron) Annealed Vision Glass:
   1. Description: ASTM C 1036, Type I (transparent flat glass), Class 1 (clear), Quality Q3 (select glazing applications).
   2. Products: Provide one of the following, or equal.
      a. “Starphire” manufactured by PPG Industries.
      b. “UltraWhite” manufactured by Guardian Industries Corp.
      c. “OptiWhite” manufactured by Pilkington North America, Inc.
      d. “DIAMANT” manufactured by Saint-Gobain Glass.
   3. Performance Requirements:
      a. Visible Light Transmittance (VLT): At least 90 percent at 6mm thickness.

2.3 SECONDARY GLASS FABRICATORS

A. Fabricators: Provide products fabricated by one of the following, or equal.
   1. Oldcastle BuildingEnvelope Corp.
   2. PPG Industries.
   3. Viracon, Inc.

2.4 TEMPERED GLASS

A. Description: ASTM C 1048, Kind FT (fully tempered), Condition A (uncoated surfaces), fabricated from ultra-clear (low iron) annealed vision glass.

B. Minimum Surface Compression Strength: At least 10,000 pounds per square inch.

C. Fabrication:
   1. Fabricate tempered glass by the horizontal (roller hearth) process with roll wave distortion parallel to the bottom glass edge when installed, unless otherwise indicated.
   2. Glazing materials must be free from bubbles, smoke vanes, air holes, scratches and other defects, having ground and arrised edges; provide polished edges where exposed.

D. Source Quality Control:
   1. Individual tempered glass lites installed overhead, and floor-to-ceiling tempered glass lites installed adjacent to walking surfaces must be fully heat soak tested by the manufacturer or fabricator before delivery to the project site.
   2. Other tempered glass lites may have statistical heat soak testing performed to demonstrate nickel sulfide breakage does not exceed 0.1 percent.

2.5 FIRE-RESISTANT GLASS CERAMIC MATERIAL

A. Description: Clear and wireless fire- and impact safety-rated glass ceramic material conforming to ANSI Z97.1 and CPSC 16CFR1201 (Cat. I and II) with high performance surface-applied fire-rated film.

B. Products: “FireLite NT” manufactured by Technical Glass Products (TGP), or equal.

C. Requisite Properties:
   1. Fire-Resistance Rating: 20 minutes to180 minutes with fire hose test.
   2. Thickness: 5mm (nominal 3/16-inch).
   3. Surface Grade: Premium.
   4. Identification: Each fire-rated glazing panel must be labeled with a permanent logo indicating the name of product, manufacture, testing laboratory (UL), fire rating period, safety glazing standards, and date of manufacture.

2.6 CERAMIC-COATED SPANDREL GLASS:

A. Description: ASTM C 1048, Kind HS (heat strengthened) or FT (fully tempered) as indicated, Condition C (spandrel glass, one surface ceramic coated), Type I (transparent flat glass), Class 1 (clear), Quality Q3 (select glazing applications).

B. Coating: Ceramic enamel coating applied by the silk-screen process.

~~2.6~~2.7 ACCESSORIES

A. Extruded Polystyrene (XPS):
   1. Description: Unfaced, rigid, CFC- and HCFC-free, closed cell plastic XPS foam insulation board conforming to ASTM C 578 Type IV physical property requirements, with grooves on one face.
   2. Products: “FOAMULAR” manufactured by Owens Corning, or equal.
   3. Requisite Properties:
      a. Minimum Compressive Strength: At least 30 pounds per square inch, when measured in conformance with ASTM D 1621 at either 5 percent deformation or yield, whichever occurs first.
      b. Minimum Density: At least 25 pounds per square inch, when measured in conformance with ASTM D 1622.
      c. Minimum Thermal Resistance: Provide material having an R-value of at least R-5 per inch of thickness.
      d. Minimum Size: At least 8 feet long by 4 feet wide.
      e. Minimum Thickness: At least 2 inches.
      f. Edges: Square edges.

~~A.~~B. Shoes for Butt Joint Glazing Installations:

1. Description: Brushed stainless steel wide U-channel with top load roll-in glazing gasket for 3/4- glass.
2. Product: “Catalog No. NH3BSCL” manufactured by C.R. Laurence, or equal.
3. Finish: Brushed stainless steel finish.

~~B.~~C. Shims: Continuous shims fabricated from load-bearing, non-leaching, high-impact polystyrene.

~~C.~~D. Setting Blocks: Elastomeric silicone rubber conforming to ASTM C 1115, CH9.

~~D.~~E. Spacers and End Blocks: Provide the following, unless another type, hardness, class, or surface is supplied, required, recommended, authorized, sanctioned, or accepted by the glass installer.

~~E.~~F. Glazing Gaskets: Fabricate compression gaskets in lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.

1. Firm, Dense Gaskets: Elastomeric silicone or EPDM rubber conforming to ASTM C 1115, CH7S2 unless another type, hardness, class or surface is supplied, required, recommended, approved, or accepted by the glass installer.
2. Soft, Closed Cell Gaskets: ASTM C 509. Provide silicone or EPDM rubber with pre-molded corners.

~~F.~~G. Cleaners, Primers, Sealers: Supplied, required, recommended, or accepted by the manufacturer or fabricator.

~~G.~~H. Other Accessories: Provide other accessories and secondary items normally furnished or necessary for a complete installation; or supplied, required, recommended, or accepted by the manufacturer for actual in-service conditions applicable to the project.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Oversight: Ensure an adequate number of supervisors are present and proper supervision practices are followed at the project site before the installer begins work and at all times during installation.

B. Verification: Verify in-place construction conforms to the manufacturer’s requirements or recommendations and satisfies all other conditions that might affect the quality of installation or the durability, appearance, or performance of installed and adjacent items.

C. Evaluation and Assessment:

1. Identify project conditions that do not conform to the manufacturer’s instructions and other requirements and recommendations.

2. Perform or arrange and pay costs without reimbursement from Owner for all remedial work necessary to correct or improve deficient conditions, without limitation, before the installer begins work.

3.2 INSTALLATION

A. General Requirements:
   1. Install glazing using materials and methods required, recommended, or accepted by the manufacturer, along with manufacturer-recommended accessories and techniques.
   2. Set glazing true to line; plumb, level, and square without warp or rack; with flush, well-fitted joints; and in alignment with adjacent construction.
   3. Completed work must match approved samples, as accepted by the Architect.
   4. Installed glazing must be warrantable. Do not install, correct, or replace glazing in a manner that is un-warrantable by the manufacturer; or that results in any warranty or guarantee becoming void.

B. Interface with Adjacent Items: Provide materials, components, and accessories normally furnished or necessary to securely attach glazing to supporting construction.

3.3 CORRECTION AND REPAIR

A. Non-conforming, damaged, and defective work must be brought into conformance with the Contract Documents. Correct and repair as necessary, without limitation, including arranging all correction and repair work and paying all correction and repair costs without reimbursement from Owner, until accepted in writing by the Architect.

B. Corrective and repair work must be performed in conformance with a correction and repair plan submitted to and accepted in writing by the Architect before correction or repair work begins. At a minimum, correction and repair plans must include
   1. written descriptions of non-conforming, damaged, and defective work;
   2. supporting sketches, diagrams, photographs, and other visual depictions of non-conforming, damaged, and defective work; and
   3. similar written descriptions and visual depictions of Contractor-proposed corrections and repairs.

C. Arrange and pay costs without reimbursement from Owner for removing and replacing work that cannot be corrected or repaired to the Architect’s acceptance.

3.4 CLEANING

A. Cleaning Work: Clean all visible glazing surfaces in a manner that does not result in any warranty or guarantee becoming void. Clean spills, stains, soiling, overspray, and fallout from adjacent surfaces.

1. Use cleaning materials, equipment, and accessories supplied, and means, methods, techniques, and procedures required, recommended, or accepted by the manufacturer.
2. Do not use cleaning materials or procedures known to change, or that might change, the appearance of exposed finishes or adjacent surfaces; or cause deterioration or damage to exposed finishes or adjacent surfaces.
3. Protect adjacent surfaces not being cleaned from staining, deterioration, damage, or other detrimental effects caused by cleaning.
4. Arrange and pay costs without reimbursement from Owner for removing and replacing work that cannot be cleaned to the Architect's acceptance.

B. Waste Management: After completing the work of this specification section, leave work areas free from debris, waste, scrap, equipment, tools, and other items.

3.5 PROTECTION

A. Protect installed glazing in place from deterioration and damage until Substantial Completion.

B. Do not store anything adjacent to or against installed glazing unless it is protected from damage, as accepted in writing by the manufacturer's representative. Do not use installed glazing surfaces as work surfaces.

C. Remove protection when it's no longer needed and before Substantial Completion.

END OF SECTION

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LEO A DALY

PLANNING
ARCHITECTURE
ENGINEERING
INTERIORS

BID ADDENDUM #2

To: Carlos Cueva, Project Manager
Keren Cruznueva, Project Planner

From: Steven Henrich, Sr. Project Architect, LEO A DALY

CC: LAD Consultant Team

Date: July 28, 2025

Project: RUHS Cardiac Catheterization Lab Suite & Hyperbaric Facility Expansion

Re: Bid Addendum #2

All HCAi approved Contract Documents and scope of work remain unchanged unless identified on this Supplemental Instruction. Revisions per Bid Addendum #2, identified with Delta #2 clouded changes dated 7/28/25, are summarized below.

Change Summary:
Add a new service access door on 3rd floor for maintenance only access to the roof. The basis of design for the new door is of a single Kawneer '2000T Terrace Door', Outswing, 5" frame, 10" bottom rail. Glazing shall be dual pane, insulated, tempered glass. Latch and lock shall be per manufacturer, storeroom function. Locking shall be from the corridor side and allow free egress from roof area. Keying and core shall match facility standards. See attached Kawneer cutsheet for reference.

Sheet AE112

1. Located new 3rd floor roof maintenance access door on D1/AE112 Partial Roof Plan. Added detail references for demo and remodel scope on new sheet AE552.

Sheet AE552 (New Sheet)

2. New demo plans and details describing the demo of an existing roof access hatch in the existing exterior storefront window and a portion of the exterior furred wall below the window.
3. New remodel plans and details describing the installation of a new roof access doorway within a single window bay of the existing exterior window system.

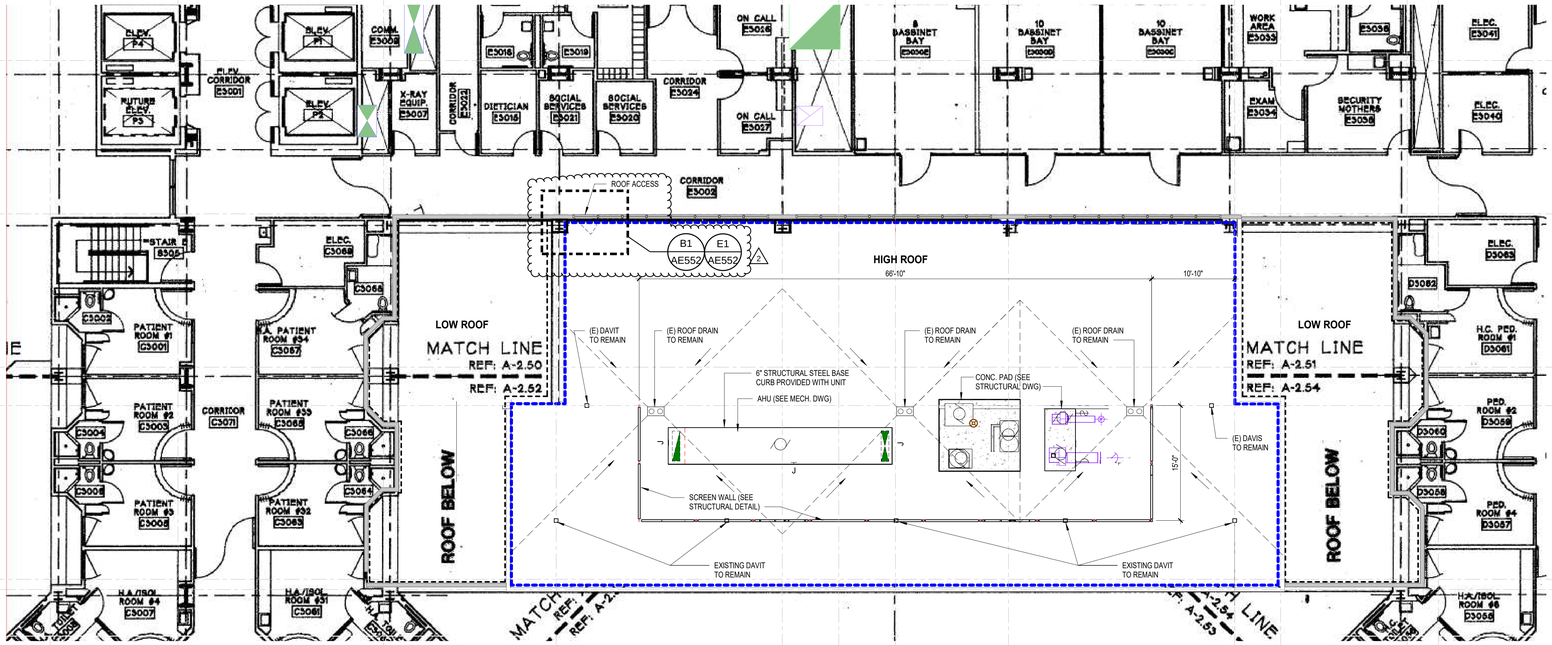
Sheet AE601

4. Added door E3002A to door schedule.
5. Added new Door Type 'E'
6. Added new Door Frame type 5.

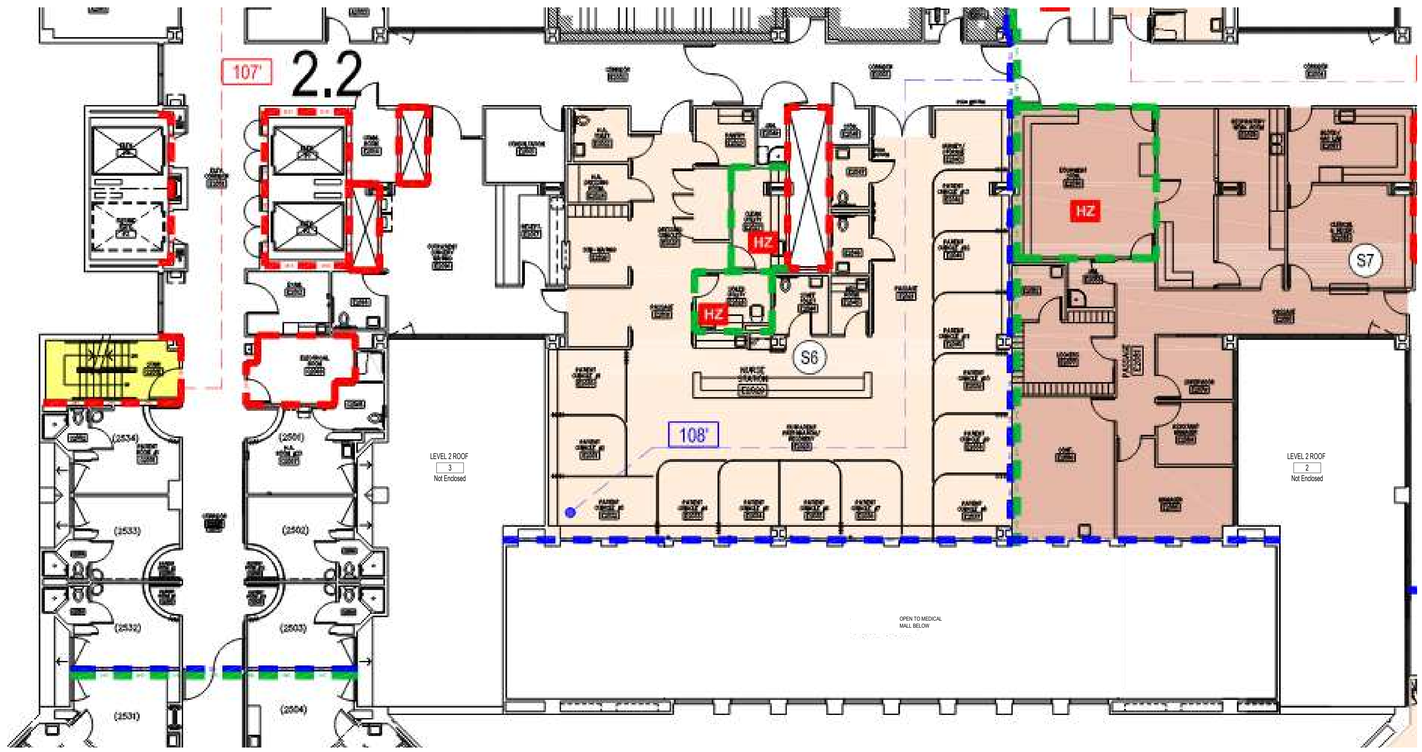
End of Bid Amendment #2

550 South Hope Street
27th Floor
Los Angeles, CA 90071-2675
213.629.0100

leoadaly.com



D1 PARTIAL ROOF PLAN
SCALE: 1/8" = 1'-0"



A1 PARTIAL FLOOR PLAN - LEVEL 2 - REMODEL
SCALE: 1/8" = 1'-0"

TRUE NORTH

7/12/2024 2:43:45 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/RUHS-2ND-CATH-LAB-ARCH.rvt

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27289 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
2	ADDENDUM 02	07/28/2025

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

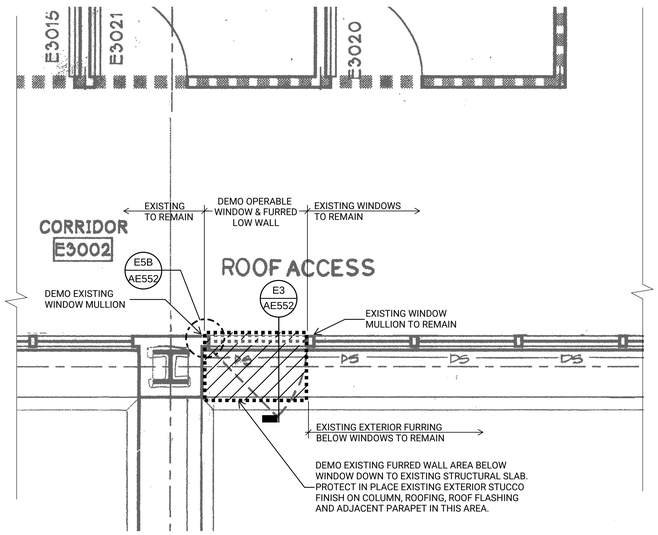
PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

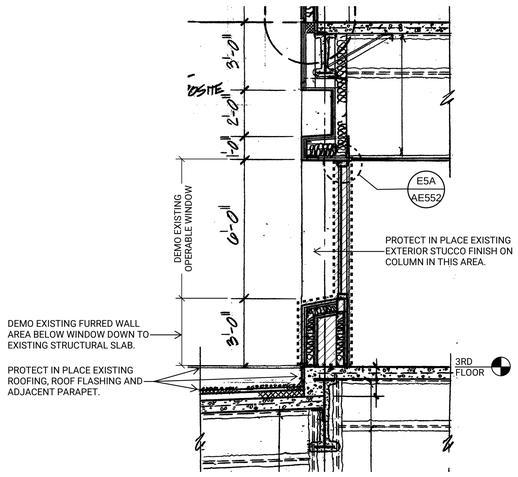
SHEET NAME
PARTIAL FLOOR PLAN - LEVEL 2 - REMODEL AND PARTIAL ROOF PLAN

SHEET NUMBER
AE112

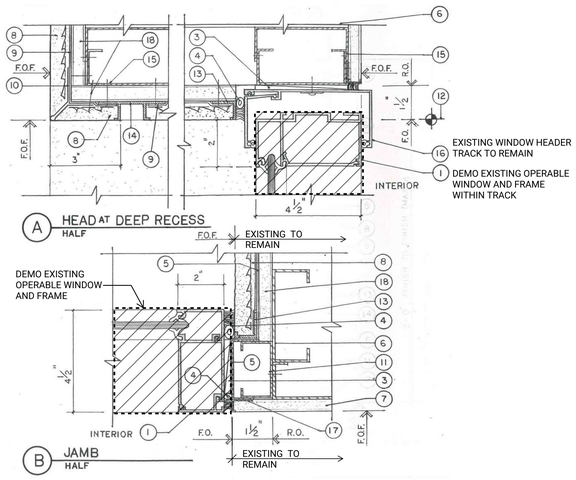
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E1 PARTIAL DEMO PLAN AT (E) ROOF ACCESS WINDOW
SCALE: 1/2" = 1'-0"



E3 DEMO SECTION @ (E) ROOF ACCESS WINDOW
SCALE: 3/8" = 1'-0"



E5 DEMO @ (E) WINDOW FOR NEW ROOF ACCESS DOOR
SCALE: NTS

KEYNOTES FROM AS-BUILT DRAWINGS FOR EXISTING CONDITION (FOR INFO ONLY)

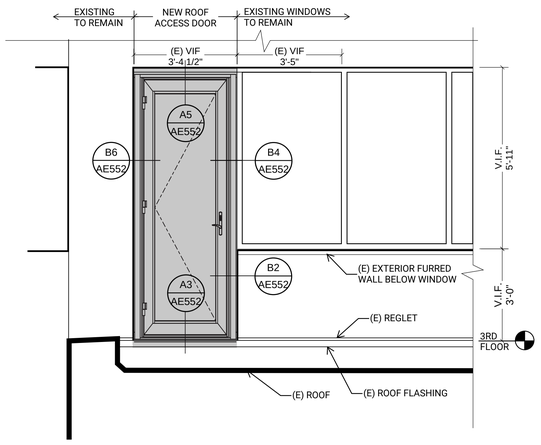
1. EXISTING WINDOW FRAME
2. FASTENER PER WINDOW MANUFACTURER'S SPECIFICATIONS AND/OR OSHPD REQUIREMENTS AND APPROVAL.
3. SHIM PER WINDOW MANUFACTURER'S SPECIFICATIONS.
4. CONTINUOUS CAULKING SEALANT WITH BACKER ROD AS REQUIRED.
5. CONTINUOUS SHEET WATERPROOF MEMBRANE.
6. METAL STUD FRAMING MEMBER. SEE STRUCTURAL DRAWINGS.
7. 5/8" GYPSUM BOARD.
8. STUCCO WITH PAPER-BACKED LATH.
9. BUILDING PAPER TO BE EXTENDED OVER METAL EXTRUSION FLANGES.
10. G.I. CORNER SCREED.
11. 2½" X 1-3/8" METAL STUD INSIDE 2½" X 1¼" STUD TRACK FOR LEVELING/SQUARING OF ROUGH OPENING.
12. FINISH CEILING LINE. SEE REFLECTED CEILING PLAN OR FINISH SCHEDULE.
13. CONTINUOUS EXTRUDED METAL STANDARD "J" MOLD.
14. CONTINUOUS G.I. METAL STANDARD "J" MOLD.
15. 4" X 1-5/8" METAL STUD INSIDE 4" X 1¼" STUD TRACK FOR LEVELING/SQUARING OF ROUGH OPENING.
16. CONTINUOUS SEISMIC WINDOW RECEPTOR FRAME.
17. STANDARD GYPSUM BOARD "J" MOLD.
18. 5/8" EXTERIOR GYPSUM SHEATHING.

B1 NEW ROOF ACCESS DOORWAY
SCALE: 1/2" = 1'-0"

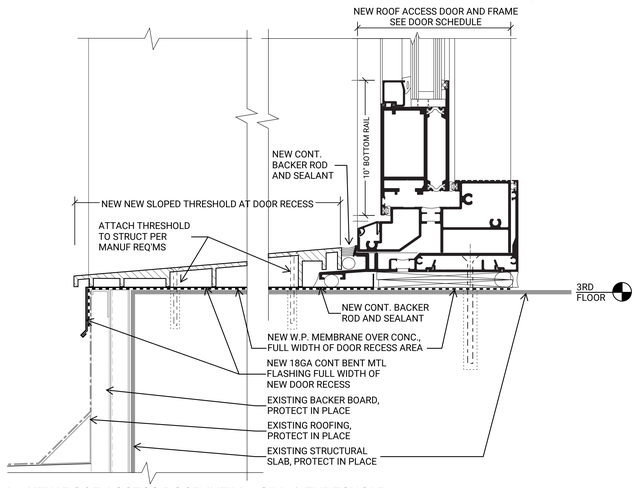
B2 NEW ROOF ACCESS DOOR INFILL - JAMB @ FURRED WALL
SCALE: 6" = 1'-0"

B4 NEW ROOF ACCESS DOOR INFILL - JAMB @ MULLION
SCALE: 6" = 1'-0"

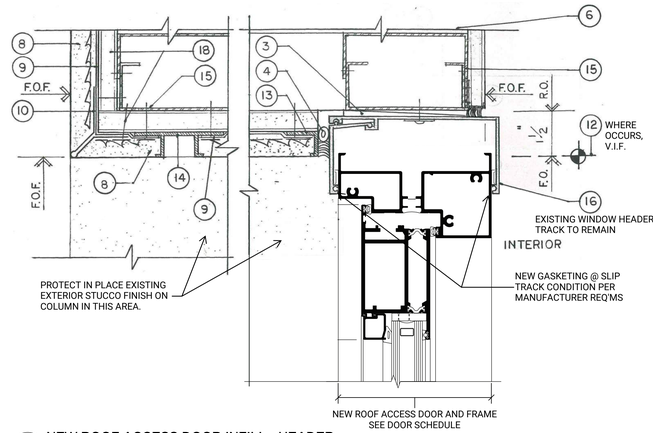
B6 NEW ROOF ACCESS DOOR INFILL - JAMB @ COLUMN
SCALE: 6" = 1'-0"



A1 NEW ROOF ACCESS DOOR INFILL - ELEVATION
SCALE: 1/2" = 1'-0"



A3 NEW ROOF ACCESS DOOR INFILL - SILL & THRESHOLD
SCALE: 6" = 1'-0"



A5 NEW ROOF ACCESS DOOR INFILL - HEADER
SCALE: 6" = 1'-0"

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

CONSULTANT

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KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
2	ADDENDUM 02	07/28/2025

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

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FM08430011869	047-10071-002

SHEET NAME
DETAILS - DOORS

SHEET NUMBER
AE552 2

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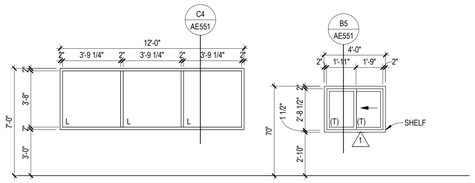
WINDOW SCHEDULE - NEW WINDOWS

WINDOW TYPE	Width	Height	FRAME TYPE	FRAME FINISH	DETAIL NO.	DETAIL SHEET	COMMENTS
W1	12'-0"	4'-0"	HM	PT-	C4	AE551	LEAD-LINED (L)
W2	4'-0	3'-0	HM	PT-	B5	AE551	(T)
W3	5'-0"	4'-2"	EXISTING	EXISTING	A4/AE601	A4/AE601	EXISTING GLAZING AND FRAME TO REMAIN (E)
W4	3'-0"	4'-0"	EXISTING	EXISTING	A4/AE601	A4/AE601	REPLACE EXISTING GLASS PANEL WITH NEW SPANDREL GLASS IN EXISTING FRAME (S)

1

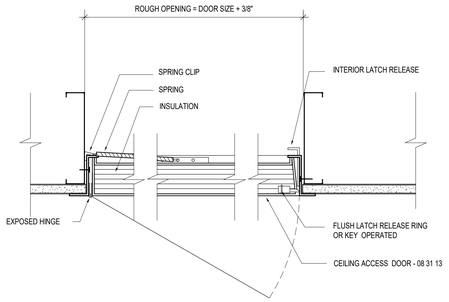
WINDOW REMARKS:

A = 1/4" LAMINATED, CLEAR GLASS
E = EXISTING GLAZING TO REMIAN
F = FIRE RATED GLAZING PER OPENING
PROTECTION LABEL HOUR RATING IN DOOR SCHEDULE
L = LEAD LINED (MEET SHIELDING REQUIREMENTS ON AE141
T = 1/4" TEMPERED, CLEAR GLASS
S = SPANDREL (COORDINATE TO MATCH EXISTING HOSPITAL GLASS COLOR AND CERAMIC FRIT COLOR, V.I.F.)



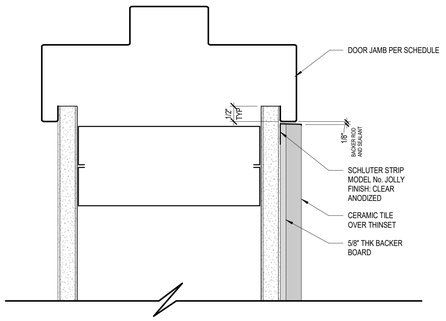
WINDOW FRAME TYPES

SCALE: 1/4" = 1'-0"



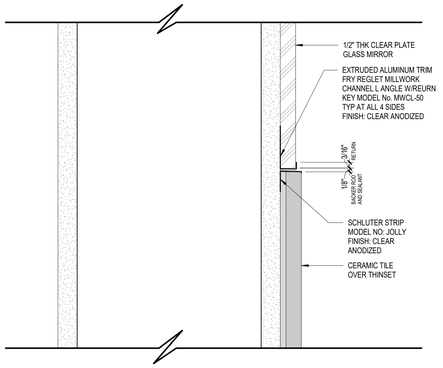
D1 CL- ACCESS DOOR

SCALE: 3" = 1'-0"



B1 DETAIL AT TILE EDGE AT DOOR JAMB AND HEAD

SCALE: 6" = 1'-0"



A1 DETAIL AT MIRROR AND TILE EDGE

SCALE: 6" = 1'-0"

DOOR SCHEDULE

DOOR NO.	DOOR TYPE	Width	DOOR HEIGHT	HDWE SET	DOOR TYPE	DOOR MAT'L	DOOR FIN.	FRAME TYPE	FRAME MAT'L	FRAME FIN.	FRAME DET NOS	FRAME DET SHT	LABEL HOUR	REMARKS
1034		3'-6"	7'-0"	119	F	WD	P-1	1	HM	P-2	B1	AE551	45	SMOKE DOOR
1035		3'-6"	7'-0"	119	F	WD	P-1	1	HM	P-2	B1	AE551	45	
1037		3'-6"	7'-0"	120	F	WD	P-1	1	HM	P-2	B1	AE551	45	
1038		3'-0"	7'-0"	119	F	WD	P-1	1	HM	P-2	B1	AE551	20 MIN.	
1039		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2	B1	AE551	20 MIN.	NOTE 1, 5
1040A	UN	7'-0"	7'-0"	124	F	WD	P-1	3	HM	P-2	B1	AE551	20 MIN.	NOTE 4, PANIC HARDWARE; EACH DOOR LEAF TO BE 20 MIN. FIRE RATED ; UNEVEN PAIR DOOR, ONE LEAF 44" CLR WIDTH; PANIC HDWR; HOLD OPENS; OPPOSIT SWING
1040B	UN	7'-0"	7'-0"	124	F	WD	P-1	3	HM	P-2	B1	AE551	20 MIN.	UNEVEN PAIR DOORS, ONE LEAF 44" MIN CLR WIDTH; PANIC HDWR; HOLD OPENS; OPPOSIT SWING
1040C		3'-6"	7'-0"	112	F	WD	P-1	1	HM	P-2	B1	AE551	45	
1041A		3'-0"	7'-0"	118	F	WD	P-1	1	HM	P-2	B1	AE551	45	
1041B		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2	B1	AE551	--	NOTE 1, 5
1041C		2'-2"	7'-0"	122	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1046	UN	6'-0"	7'-0"	101	F/NG	HM	P-1	2	HM	P-2	B1	AE551	--	NOTE 1, 2, 3, 5 PANIC HARDWARE, ONE LEAF 44" MIN CLR WIDTH
1047	UN	6'-0"	7'-0"	104	F/F	WD	P-1	2	HM	P-2	B2	AE551	20 MIN.	NOTE 2, 3, 5, LEAD-LINED
1047A		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2	B2	AE551	45 MIN.	LEAD-LINED
1047A.1		3'-6"	7'-0"	117	F	WD	P-1	1	HM	P-2	B1	AE551	20 MIN.	
1047B		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2	B2	AE551	45 MIN.	LEAD-LINED
1047B.1		3'-0"	7'-0"	116.1	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1049	UN	6'-0"	7'-0"	104	F/F	WD	P-1	2	HM	P-2	B2	AE551	20 MIN.	NOTE 2, 3, 5
1049A		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2	B2	AE551	45 MIN.	LEAD-LINED
1049A.1		3'-6"	7'-0"	117	F	WD	P-1	1	HM	P-2	B1	AE551	20 MIN.	
1049B		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2	B2	AE551	45 MIN.	LEAD-LINED
1051	UN	7'-0"	7'-0"	105	F/F	WD	P-1	2	HM	P-2	B1	AE551	20 MIN.	NOTE 1, 2, 3, 5 LEAD-LINED
1051A		3'-0"	7'-0"	114	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1051B		3'-0"	7'-0"	115	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1051C		3'-0"	7'-0"	121	F	WD	P-1	1	HM	P-2	B1	AE551	20 MIN.	
1053	PR	7'-0"	7'-0"	103	F	HM	P-1	2	HM	P-2	B1	AE551	45 MIN.	NOTE 2, 3, 5; EACH DOOR LEAF TO BE 45 MIN FIRE RATED
1054		3'-0"	7'-0"	114	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1055		3'-0"	7'-0"	114	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1057		3'-0"	7'-0"	113	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1059A	PR*	6'-2"	7'-0"	107	F/NG	WD	P-1	2	HM	P-2	B1	AE551	--	NOTE 1, 4, 5 PANIC HARDWARE
1059B		3'-8"	7'-0"	126	NG	WD	P-1	1	HM	P-2	B1	AE551	--	NOTE 1, 4
1059C		3'-6"	7'-0"	125	F	HM	P-1	1	HM	P-2	B1	AE551	45	
1060		9'-0"	7'-6"	106	SGD	AL	ANOD	4	AL	ANOD	A1, A3	AE551	--	SLIDING DOOR TO BE EQUIPPED WITH AN AUTO-CLOSER AND POSITIVE LATCH, SLIDER IN OPEN POSITION SHALL ALLOW 44" MIN. CLR
1060A		3'-0"	7'-0"	123	F	WD	P-1	1	HM	P-2	B1	AE551	45	NOTE 1, 5
1060B		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2	B1	AE551	--	NOTE 1
1061		3'-0"	7'-0"	115	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1062		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2	B1	AE551	45	NOTE 1, 5
1071		3'-0"	7'-0"	115	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1071C	UN	7'-0"	7'-0"	102	F/NG	WD	P-1	2	HM	P-2	B1	AE551	45 MIN.	NOTE 1, 2, 3, 5
1072A	PR	8'-0"	7'-0"	101.1	NG	HM	P-1	3	HM	P-2	B1	AE551	20 MIN.	NOTE 1, 2, 3, 5 PANIC HARDWARE; EACH DOOR LEAF TO BE 20 MIN FIRE RATED
1072B	PR	8'-0"	7'-0"	124	NG	HM	P-1	3	HM	P-2	B1	AE551	20 MIN.	NOTE 4
1074		3'-0"	7'-0"	111	F	WD	P-1	1	HM	P-2	B1	AE551	90 MIN.	
1075		3'-0"	7'-0"	110	F	WD	P-1	1	HM	P-2	B1	AE551	90 MIN.	NOTE 1, 5, 6
1076		3'-0"	7'-0"	109	F	WD	P-1	1	HM	P-2	B1	AE551	20 MIN.	NOTE 1, 5
1077		3'-0"	7'-0"	126	F	WD	P-1	1	HM	P-2	B1	AE551	--	
1079		3'-0"	7'-0"		F	WD	P-1	1	HM	P-2	B1	AE551	--	
E3002A		2'-10" *	8'-6" *	(BY MANUF.)	E	AL	ANOD	5	AL	ANOD	A1	AE552	--	* DOOR W' & H' SHALL BE DETERMINED IN THE FIELD PER DETAILS ON AE552

DOOR HARDWARE REMARKS

AO	AUTOMATIC OPENER
CR	CARD READER
DA	DELAYED ALARM
EH	ELECTRIC HARDWARE
FAR	FIRE ALARM RELAY
HO	HOLD OPEN
IB	INTEGRAL BLINDS
LD	ER LOCKDOWN
PR	EQUAL PAIR DOOR
UN	UNEQUAL PAIR DOOR

DOOR HARDWARE NOTES

NOTE 1 - HARD-WIRED CARD READER: HARD-WIRED CARD READER LOCATIONS REQUIRE ELECTRICAL AND/OR SECURITY TO COORDINATE, FURNISH & INSTALL COMPONENTS INCLUDING BUT NOT LIMITED TO WIRE, CONDUIT, AND CONNECTIVITY FROM CEILING THROUGH FRAME TO ALL ELECTRIFIED HARDWARE SPECIFIED IN SECTIONS 08 71 00, 08 71 13 AND/OR 08 17 13.

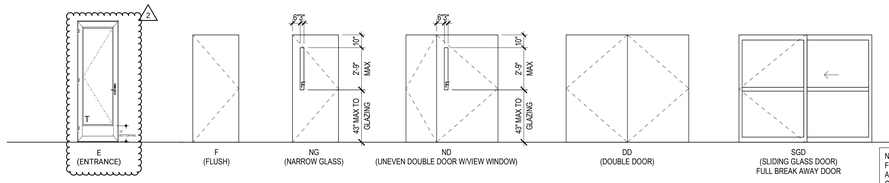
NOTE 2 - AUTOMATIC OPERATOR LOCATIONS: HARD-WIRED, ELECTRICAL 120V LOCATIONS REQUIRED. ELECTRICAL AND/OR SECURITY TO COORDINATE, FURNISH & INSTALL COMPONENTS INCLUDING BUT NOT LIMITED TO WIRE, CONDUIT, AND CONNECTIVITY FROM CEILING THROUGH FRAME TO COMPLETE ELECTRIFIED HARDWARE SPECIFIED (INCLUDING FOR SWING DOORS 6'X9" BOLLARDS WITH FULL HEIGHT PUSH-PLATE/ACTUATORS AT EACH LEAF INTERIOR AND EXTERIOR) AND AS SEEN IN SECTIONS 08 71 00, 08 71 13, 08 17 13 AND/OR IN DIVISION 08 SLIDING OR REVOLVING DOOR SPECIFICATIONS.

NOTE 3 - AUTOMATIC OPERATOR SURFACE OVERHEAD LOCATIONS REQUIRING 6" OVERHEAD CLEARANCE. SEE SPECIFIED IN SECTIONS 08 17 13.

NOTE 4 (HO) - WALL ELECTRO-MECHANICAL MAG HOLD-OPENS. FURNISH AND INSTALL FIRE ALARM DROP. IN THE EVENT OF FLS/FIRE LIKE SAFETY) OR EMERGENCY OR LOSS OF BUILDING POWER. WALL MOUNTED ELECTRO-MECHANICAL HOLD-OPEN DEVICES TO HAVE POWER DROPPED (DOOR TO SELF-CLOSE AND SELF-LATCH DOORS IN AN EMERGENCY). ELECTRICAL TO FURNISH & INSTALL COMPONENTS INCLUDING BUT NOT LIMITED TO WIRE, CONDUIT, AND CONNECTIVITY.

NOTE 5 - DOORS WHERE ELECTRICAL SYSTEMS THAT MONITOR OR RECORD EGRESS ACTIVITY ARE INCORPORATED, THE LOCKING SYSTEM SHALL COMPLY WITH SECTION 1010.2.11, 1010.2.12, 1010.2.13, 1010.2.14 OR 1010.2.15 OR SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.

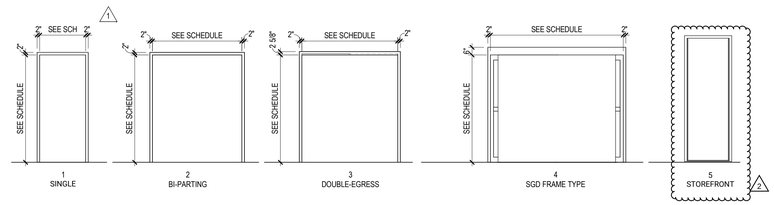
NOTE 6 - PROVIDE SIGNAGE FOR ELECTRICAL ROOM LABELED AS "ELECTRICAL ROOM" PER CODE



NOTE:
FOR VISION PANELS IN DOORS ACROSS FIRE BARRIERS AND FIRE PARTITIONS, THE FIRE-RESISTANCE-RATED GLAZING TESTED TO ASTM E119 IN ACCORDANCE WITH SECTION CCBC 716.1.2.3 SHALL BE PERMITTED, IN THE MAXIMUM SIZE TESTED

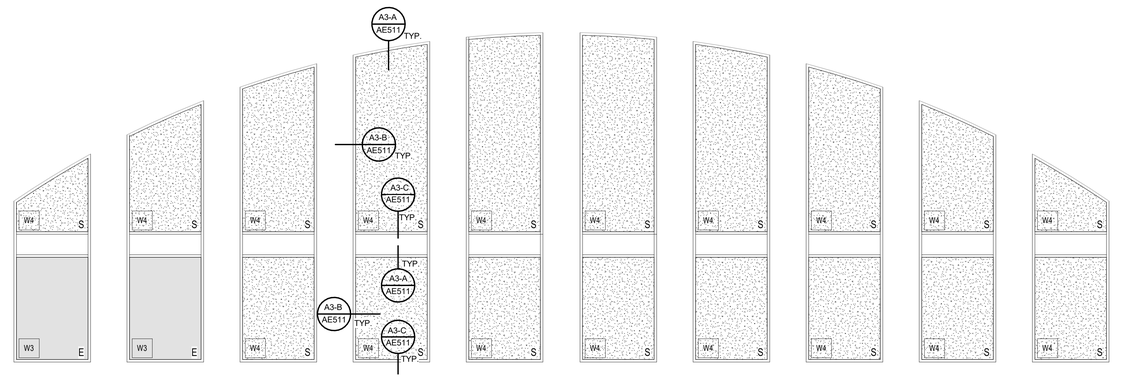
DOOR TYPES

SCALE: 1/4" = 1'-0"



DOOR FRAME TYPES

SCALE: 1/4" = 1'-0"



NOTE: SEE WINDOW SCHEDULE FOR GLAZING TYPE

1 A4 EXTERIOR WINDOW TYPES ELEVATION

SCALE: 1/4" = 1'-0"

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 01	04/30/2025
2	ADDENDUM 02	07/28/2025

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

DOOR SCHEDULE, DOOR TYPES, AND FRAMES

SHEET NUMBER

AE601

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5/12/2025 11:05:39 AM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Care_Lab/RUHS-2ND-CATH-LAB-ARCH.rvt

2000T Terrace Doors

5" (127) FRAME - OUTSWING DOOR DETAILS
- MetroView® FG 601T PG Window Wall

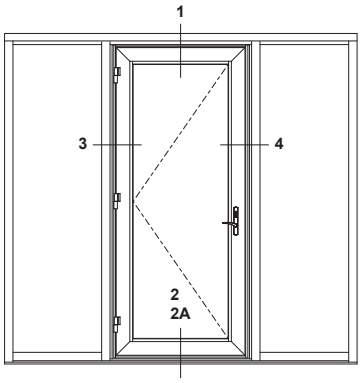
Additional information and CAD details are available at www.kawneer.com

Note: For pairs reference detail 5 Meeting Stile on page 5.

Note: No dual finish option with 5" door frame.

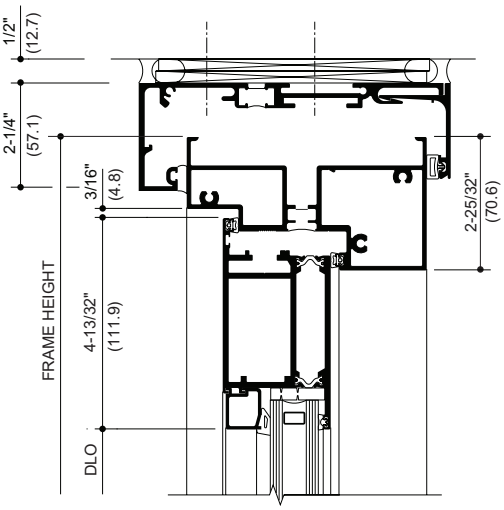
Single Door
Maximum Frame Size = 48" x 120"
(1219.2 x 3048)
Minimum Frame Size = 30" x 73"
(762 x 1854.2)

Pair of Doors
Maximum Frame Size = 96" x 96"
(2438.4 x 2438.4)
Minimum Frame Size = 60" x 81"
(1524 x 2057.4)

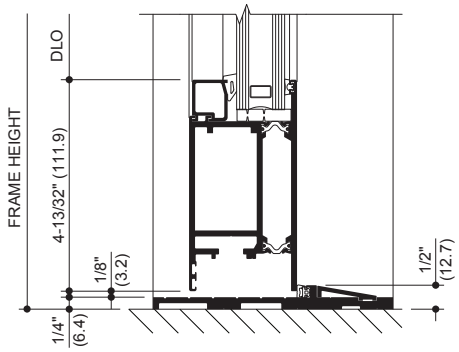


OUTSWING DOORS & FRAME

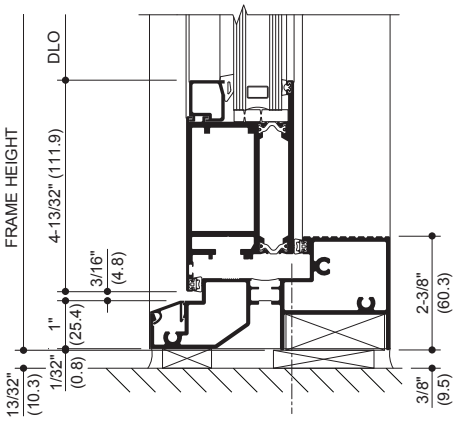
1
HEAD

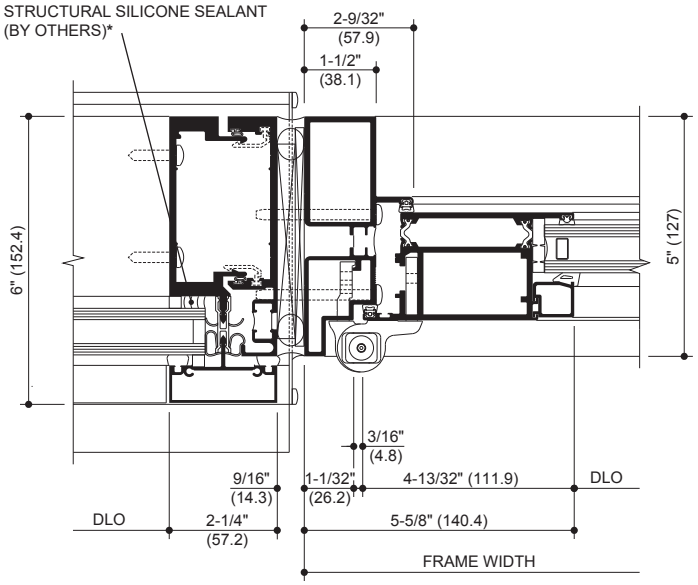


2A
OPTIONAL
LOW PROFILE
THRESHOLD

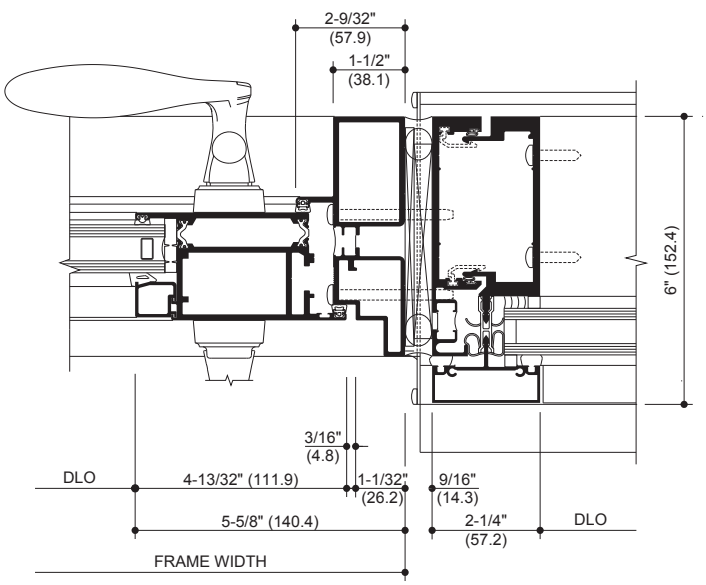


2
THRESHOLD





3
PIVOT JAMB



4
LOCK JAMB
AT DEADBOLT/LATCHLOCK

* Installer Note: Installer is responsible for all required compatibility review and approvals with the Structural Silicone Manufacturer and the Insulated Glass Unit Manufacturer.

Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

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NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION
RIVERSIDE UNIVERSITY HEALTH SYSTEM
LEO A DALY PROJECT #047-10071-002

PROJECT GENERAL NOTES

1. GENERAL CONDITIONS

THE GENERAL CONDITIONS AS SUPPLIED BY RIVERSIDE UNIVERSITY HEALTH SYSTEM, LATEST EDITION ARE A PART OF THESE SPECIFICATIONS AND THE ENTIRE CONTRACT WORK

2. GOVERNING CODES

THE CONTRACTOR SHALL ABIDE BY ALL CURRENT CITY AND COUNTY GOVERNING ORDINANCES AND CODES, INCLUDED BUT NOT LIMITED TO:

APPLICABLE CODES:

2022 CALIFORNIA ADMINISTRATIVE CODE (CAC)
PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)

2022 CALIFORNIA BUILDING CODE (CBC)
PART 2, TITLE 24, CCR
BASED ON THE 2021 INTERNATIONAL BUILDING CODE (IBC)

2022 CALIFORNIA ELECTRICAL CODE (CEC)
PART 3, TITLE 24, CCR
BASED ON THE 2020 NATIONAL ELECTRICAL CODE (NEC)

2022 CALIFORNIA MECHANICAL CODE (CMC)
PART 4, TITLE 24, CCR
BASED ON THE 2021 UNIFORM MECHANICAL CODE (UMC)

2022 CALIFORNIA PLUMBING CODE (CPC)
PART 5, TITLE 24, CCR
BASED ON THE 2021 UNIFORM PLUMBING CODE (UPC) BC\

2022 CALIFORNIA ENERGY CODE (CED)
PART 6, TITLE 24, CCR

2022 CALIFORNIA HISTORICAL BUILDING CODE (CHBC)
PART 8, TITLE 24, CCR

2022 CALIFORNIA FIRE CODE (CFC)
PART 9, TITLE 24, CCR
BASED ON THE 2021 INTERNATIONAL FIRE CODE (IFC) BC\

2022 CALIFORNIA EXISTING BUILDING CODE (CEBC)
PART 10, TITLE 24, CCR
BASED ON THE 2021 INTERNATIONAL BUILDING CODE

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGreen)
PART 11, TITLE 24, CCR

2022 REFERENCED STANDARDS - PART 12, TITLE 24, CCR
TITLE 19 CCR PUBLIC SAFETY, STATE FIRE MARSHALL REGULATION

APPLICABLE STANDARDS: BC\

NFPA 13-22 AUTOMATIC SPRINKLER SYSTEMS -AS MODIFIED BY 2022 CBC, CHAPTER 35, SECTIONS 1613A / 1617A AND SFM AMENDMENTS
NFPA 14 STANDPIPE SYSTEMS -2013 EDITION
NFPA 17 -02 DRY CHEMICAL EXTINGUISHING SYSTEMS -2013 EDITION
NFPA 17A-02 WET CHEMICAL SYSTEMS -2013 EDITION
NFPA 20 STATIONARY PUMPS -2013 EDITION
NFPA 24 PRIVATE FIRE MAINS -2013 EDITION
NFPA 72 NATIONAL FIRE ALARM CODE (CALIFORNIA AMENDED) -2013 EDITION
ENFORCEMENT INCLUDES ALL OTHER CODES REFERENCED IN THE ABOVE MODEL CODES (FOR EXAMPLE, THE NEC MAKES REFERENCE TO NUMEROUS NFPA PAMPHLETS

"THE INTENT OF THE CONSTRUCTION DOCUMENTS IS TO RECONSTRUCT THE HOSPITAL BUILDING IN ACCORDANCE WITH THE 2022 CBC. SHOULD ANY CONDITION DEVELOP NOT COVERED BY THE APPROVED CONSTRUCTION DOCUMENTS, WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH THE 2022 CBC, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY HCAI BEFORE PROCEEDING WITH WORK."

CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AND ADDENDUM OR A CHANGE ORDER APPROVED BY HCAI, AS REQUIRED BY PART I, TITLE 24, CCR. A PROJECT INSPECTOR EMPLOYED BY THE OWNER AND APPROVED BY HCAI SHALL PROVIDE CONTINUED INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN PART I, TITLE 24, CCR.

ALL WORK SHALL CONFORM TO LISTED BUILDING CODES AN ALL APPLICABLE STATE AND MUNICIPAL ORDINANCES AND ALL OTHER RULES AND REGULATIONS HAVING JURISDICTION OVER THIS PROJECT. IN THE EVENT THAT TWO OR MORE REGULATIONS CONFLICT, THE MORE RESTRICTIVE SHALL GOVERN.

3. SHOP DRAWINGS AND SUBMITTALS

SHOP DRAWINGS ARE DRAWINGS DIAGRAMS, ILLUSTRATIONS, SCHEDULES, PERFORMANCE CHARTS, BROCHURES AND OTHER DATA WHICH ARE PREPARED BY THE CONTRACTOR OR ANY SUBCONTRACTOR MANUFACTURER, SUPPLIER OR DISTRIBUTOR AND WHICH ILLUSTRATES SOME PORTION OF THE WORK.

NO PORTION OF WORK REQUIRING SHOP DRAWING SHALL BE COMMENCED UNTIL THE SHOP DRAWINGS HAVE BEEN APPROVED BY THE ARCHITECT.

THE FOLLOWING SHOP DRAWING SUBMITTALS WILL BE REQUIRED ON THIS PROJECT:

THE DRAWINGS AND SPECIFICATIONS OF THE DEFERRED APPROVAL ITEMS MUST BE SUBMITTED TO THE ARCHITECT OR STRUCTURAL ENGINEER OF RECORD FOR REVIEW AND APPROVAL WITH STAMP AND SIGNATURE BEFORE SUBMITTAL TO HEALTH CARE ACCESS INFORMATION (HCAI).

CONSTRUCTION OF DEFERRED APPROVAL ITEMS BEFORE DRAWINGS AND SPECIFICATIONS HAVE BEEN APPROVED BY HEALTH CARE ACCESS INFORMATION (HCAI) IS DEEMED NON-CONFORMING AND WILL RESULT IN WITHHOLDING OF APPROVAL OF THE ENTIRE PROJECT.

4. AS-BUILT RECORD DRAWINGS

THE CONTRACTOR SHALL MAINTAIN AT THE JOB SITE, ACCESSIBLE TO THE ARCHITECT, ONE SET OF DIMENSIONED PRINTS SHOWING "AS INSTALLED" WORK INSIDE THE BUILDING AND EXTENDING OUT TO A POINT OF CONNECTION TO SITE UTILITIES.

A. SHOW ALL NOT READILY VISIBLE LINES AND ITEMS OF EQUIPMENT OF THE ELECTRICAL, PLUMBING, HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS.

B. WHERE DEVIATIONS FROM THE ORIGINAL DRAWINGS OCCUR IN THE LAYOUT OF DUCTS OR EQUIPMENT CONNECTED THERE TO, SHOW " AS INSTALLED" LOCATIONS AND SIZES, INCLUDING LOCATIONS OF ACCESS DOORS, DAMPERS AND CONTROL EQUIPMENT AND WIRING

C. SHOW ANY ITEM OF EQUIPMENT THAT DIFFERS IN THE TYPE, MODEL, CATALOG NUMBER OR MANUFACTURER FROM THAT CALLED FOR ON ORIGINAL DRAWINGS OR SPECIFICATIONS. UPON COMPLETION OF THE WORK AND BEFORE THE FINAL INSPECTION, COMPLETELY UPDATED RECORD SET USED DURING CONSTRUCTION SHALL BE SUBMITTED TO THE ARCHITECT.

5. FIRE PROTECTION REQUIREMENT

CONTRACTOR SHALL ASCERTAIN THAT THE CONSTRUCTION AREAS WILL NOT OBSTRUCT THE FIRE DEPARTMENTS ACCESS TO IT. EXITS FROM SAID AREAS SHALL BE MAINTAINED FREE AND CLEAR OF ALL OBSTRUCTIONS.

PROVIDE FIRE EXTINGUISHERS AS REQUIRED BY THE FIRE DEPT. FIELD INSPECTOR. MAINTAIN A MINIMUM OF 44" CLEAR AT ALL REQUIRED EXITS, CONSTRUCTION SHALL BE 1-HOUR FIRE-RESISTIVE THROUGHOUT.

THROUGH-PENETRATIONS AND MEMBRANE PENETRATIONS SHALL BE PROTECTED BY AN APPROVED PENETRATION FIRESTOP SYSTEM OR MEMBRANE PENETRATION FIRESTOP SYSTEM INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E 814 OR UL 1479, WITH A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCH (2.49 PA) OF WATER OR AS OTHERWISE PERMITTED BY 2022 CBC, SECTION 714. LISTED THROUGH-PENETRATION FIRESTOP SYSTEMS AND MEMBRANE PENETRATIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE INSTALLATION DETAILS FOR LISTED SYSTEMS. LISTED THROUGH-PENETRATION FIRESTOP SYSTEMS, MEMBRANE PENETRATION PROTECTION AND OTHER PERMITTED MEANS AND METHODS OF PENETRATION PROTECTION SHALL BE SUBMITTED TO HCAI FIELD FIRE LIFE SAFETY OFFICER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION PER 2022 CBC, SECTIONS 107.2.1 AND 714.

AUTOMATIC FIRE SPRINKLER LAYOUT APPROVAL REQUIRED BY LOCAL FIRE AUTHORITY.

THE SPACING AND DETAILS OF THE SUPPORT AND BRACING OF FIRE SPRINKLER AND PIPING COMPLY WITH THE 2022 EDITION OF NFPA 13. PROVIDE ANCHORAGE DETAILS AND CALCULATIONS FOR THE CONNECTION OF SWAY BRACING TO THE STRUCTURE. ALL SHOP DRAWINGS OF THE SPRINKLER SYSTEM SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. BC\

BC\ PER OSHPD CAN 9-3301, IN OCCUPIED BUILDINGS, WHERE TEMPORARY CONSTRUCTION BARRIERS ARE REQUIRED TO BE INSTALLED DURING CONSTRUCTION OR RECONSTRUCTION OF FIRE-RESISTIVE ASSEMBLIES, TEMPORARY CONSTRUCTION SHALL MEET THE SAME FIRE RATING AS WOULD THE PERMANENT PARTITION (REFER TO SHEET A2/AE511). BC\
THE USE OF PLASTIC OR VINYL DUST BARRIER IN LIEU OF FIRE RATED SEPARATION IS PROHIBITED.

TEMPORARY CONSTRUCTION BARRIERS ARE NOT REQUIRED WHERE ADEQUATE FIRE-RESISTIVE SEPARATION CAN BE DEMONSTRATED TO EXIST BETWEEN OCCUPIED AREAS AND CONSTRUCTION AREAS.

WHERE CONSTRUCTION BARRIERS AFFECT ANY EXIT COMPONENT, PRE-APPROVAL SHALL BE OBTAINED FROM THE LOCAL FIRE JURISDICTION AND HCAI PRIOR TO ANY DEMOLITION OR RECONSTRUCTION.

FIRE SAFETY DURING CONSTRUCTION, ALTERATIONS AND DEMOLITION FOR REMODEL PROJECTS.

A. IMPAIRMENTS TO ANY FIRE PROTECTION SYSTEM SHALL BE IN ACCORDANCE WITH 2022 CFC, SECTION 901. 2022 CFC, SECTION 1408.6
B. COVER OR REMOVE SMOKE DETECTORS DURING ALTERATION WHEN REQUIRED BY THE LOCAL FIRE AUTHORITY. HEAT DETECTORS MAY BE SUBSTITUTED FOR SMOKE DETECTORS DURING ALTERATIONS. NFPA 72-02, 2022 EDITION, SECTION 5.7.11.
C. MAINTAIN REQUIRED EXITS. WHEN TEMPORARY CONSTRUCTION BARRIERS ARE PROVIDED, EXIT CORRIDORS SERVING BEDRIDDEN PATIENTS SHALL HAVE THEIR REQUIRED WIDTH REDUCED TO 6 FEET. 2022 CFC, SECTION 1411.
D. TEMPORARY EXITS SHALL BE REVIEWED BY THE FIRE MARSHALL. 2022 CFC, SECTION 1411.
E. MAINTAIN FIRE-RESISTANCE RATING OF FIRE-RESISTANCE-RATED CONSTRUCTION AND MAINTAIN OPENING PROTECTIVES IN OPERATIVE CONDITION. 2022 CFC. 2022 CFC, SECTIONS 703.1 AND 703.2 AND 2022 CBC SECTION 704.13.
F. PLASTIC FILM WHEN USED FOR DUST PROTECTION, SHALL BE FIRE RESISTANT. TITLE 19, DIVISION 1, CHAPTER 1, SUBCHAPTER 3, ARTICLE 3, SECTION 3.08.
G. HOT WORK OPERATIONS INCLUDING CUTTING AND WELDING AND GRINDING SHALL BE IN ACCORDANCE WITH 2022 CFC, CHAPTER 26, 2022 CFC, SECTION 1404.6.
H. PRIOR TO CONSTRUCTION STARTING HCAI FIELD FIRE LIFE SAFETY OFFICER AND LOCAL FIRE AUTHORITY SHALL REVIEW AND APPROVE THE MEANS OF EGRESS AND HOW IT WILL BE MAINTAINED DURING CONSTRUCTION OF THE MEANS OF EGRESS, INCLUDING TO THE PUBLIC WAY. 2022 CFC, SECTION 3311.2 AND CAN 9-3301.

6. FINISHES

ALL INTERIOR FINISHES SHALL COMPLY WITH 2022 CBC, CHAPTER 8.

ANY NEW DECORATIONS USED SHALL MANNER. SAMPLES AND SPECIFICATIONS OF ALL FINISH MATERIALS SHALL BE SUBMITTED TO HCAI CONSTRUCTION FIELD ADVISOR FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

SUBMIT THREE (3) SAMPLES AND SPECIFICATIONS FOR EACH FINISH MATERIAL LISTED TO THE ARCHITECT AND STATE FIELD INSPECTOR FOR APPROVAL. PRIOR TO INSTALLATION, SUBMIT TO CONSTRUCTION ADVISORY SECTION HCAI FOR APPROVAL. FINISH MATERIALS IN EXIT WAYS SHALL HAVE A FLAME SPREAD OF 25 OR LESS AND A SMOKE DEVELOPMENT OF 450 OR LESS AND MEETING A CLASS II RATING PER ASTM E648 BC\ BC\

FINISH MATERIALS IN ROOMS OF AREAS SHALL HAVE A FLAME SPREAD OF 75 OR LESS, SMOKE DEVELOPMENT SAME AS ABOVE. PAINT SHALL BE THE PRODUCT OF ONE MANUFACTURED AND SHALL BE DELIVERED TO JOB SITE IN SEALED CONTAINERS. BC\

BC\ INTERIOR FLOOR FINISH AND FLOOR COVERING MATERIALS SHALL BE OF CLASS I (0.45 WATTS/CM2 OR GREATER) OR CLASS II (0.22 WATTS/CM2 OR GREATER) MATERIALS IN ACCORDANCE WITH ASTM E648 OR NFPA 253. SPECIFIC OPTIONAL DENSITY SMOKE RATING SHALL NOT EXCESS 450 PER ASTM

PAINT SHALL BE CONSIST OF MINIMUM TWO (2) COAT APPLICATION AND APPROPRIATE SEALER. BC\

RECESSED MOUNTED FIXTURES IN RATED WALLS/CEILINGS SHALL BE BACK BOXED WITH MATERIAL EQUAL TO RATED WALL ASSEMBLY.

CEILINGS SHALL BE SMOOTH. EASILY CLEANED WITH NO ROUGH TEXTURES.

7. MEASUREMENTS

EACH CONTRACTOR AND SUBCONTRACTOR SHALL VERIFY MEASUREMENTS OF THE BUILDING AND THEY SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF THE SAME. NO EXTRA COMPENSATION WILL BE ALLOWED ON ACCOUNT OF ANY DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND MEASUREMENTS INDICATED OF THE DRAWINGS. IF A DIFFERENCE EXISTS, IT SHALL BE SUBMITTED TO THE ARCHITECT FOR CONSIDERATION BEFORE PROCEEDING WITH THE WORK.

FOR CONSTRUCTION PURPOSES, USE NOTED DIMENSIONS ONLY.
DO NOT SCALE DRAWINGS. VERIFY THE PRECISE LOCATIONS OF ALL EQUIPMENT WITH THE OWNER PRIOR TO THE INSTALLATION OF THAT EQUIPMENT OR THE SERVICES THAT SUPPORT IT.

ALL DIMENSIONS ARE TO FACE OF STUD (F.O.S.) OR CENTER LINE OF STUD UNLESS NOTED OTHERWISE.

8. PROTECTION OF WORK AND PROPERTY

CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF AND PRESERVATION OF:
1. ALL MATERIALS, SUPPLIES AND EQUIPMENT OF EVERY DESCRIPTION INCLUDING PROPERTY WHICH MAY BE FURNISHED OR OWNED BY OWNER OR BY OTHERS WHILE SUCH PROPERTY IS LOCATED ON THE CONSTRUCTION SITE.
2. ALL WORK PERFORMED.
EXERCISE EXTREME CARE TO PREVENT DAMAGE TO EXISTING EQUIPMENT, STRUCTURES AND SERVICES. DAMAGE AS A RESULT OF THIS WORK SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER. PROVIDE PROTECTION FROM DUST, DIRT AND MOISTURE FOR THE PROTECTION OF THE WORKMEN, STAFF, PATIENTS, THE PUBLIC AND EXISTING COMPUTER AS REQUIRED BY ALL PERTINENT CODES AND REGULATIONS.

9. EXTENT OF DEMOLITION

PERFORM ALL DEMOLITION SHOWN ON DRAWINGS. DO ALL CUTTING, BORING, SLAB CUTTING, OR OTHER DEMOLITION AS SHOWN ON DRAWINGS FOR THE INSTALLATION OF ANY PATCH AND/OR REFINISH ALL EXISTING SURFACES TO MATCH ADJACENT SURFACES AND NEW SPECIFIED FINISHES.

SALVAGE MATERIALS NOT SCHEDULED FOR REUSE SHALL BE STORED OR DISPOSED OF AS INSTRUCTED BY THE OWNER.

DEMOLITION PLAN AND NOTES ARE INCLUDED FOR GENERAL INFORMATION ONLY AND ARE NOT INTENDED TO REPRESENT ALL CONDITIONS PRESENT AT THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING THE SITE FOR CONSTRUCTION
AS DESCRIBED AND DETAILED IN THE CONTRACT.

WHENEVER CUTTING, PATCHING, ETC. IS REQUIRED, ALL ADJACENT SURFACES SHALL BE FINISHED TO ACHIEVE A MATCHING SURFACE CONDITION. SAW CUTTING AND CORE DRILLING SHALL BE USED IN LIEU OF JACKHAMMERING.

10. CLEAN-UP

THE COMPLETE AREA OF WORK AND CORRIDORS LEADING THERE TO SHALL BE LEFT FREE OF DUST AND DEBRIS. ALL RUBBISH AND DEBRIS SHALL BE COLLECTED AND STORED IN PLIES FOR REMOVAL PERIODICALLY FROM THE SITE.

11. MATERIAL TO BE RELOCATED

ALL MATERIAL REMOVED AND RELOCATED SHALL BE PROTECTED FROM DAMAGE DURING THIS PROCESS. REPAIR OR REPLACE DAMAGED PARTS TO MATCH BEFORE DAMAGE.

12. EXPANSION ANCHORS

REFER TO STRUCTURAL DRAWINGS.

13. DOOR HARDWARE

MAXIMUM EFFORT TO OPEN DOORS SHALL BE 5 LBS. INTERIOR 5 LBS. EXTERIOR, AND 15 LBS AT FIRE DOORS. HAND-ACTIVATED HARDWARE SHALL BE CENTERED BETWEEN 30 INCHES AND 44 INCHES ABOVE THE FLOOR. LATCHING AND LOCKING DOORS THAT ARE HAND-ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL, SHALL BE OPERABLE WITH A SINGLE EFFORT BY HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP.

14. ASBESTOS ON HAZARDOUS WASTE

ASBESTOS OR HAZARDOUS WASTE, IT IS UNDERSTOOD AND AGREED THAT THIS CONTRACT DOES NOT CONTEMPLATE THE HANDLING OF ASBESTOS OR ANY HAZARDOUS WASTE MATERIAL. IF ASBESTOS OR ANY HAZARDOUS WASTE MATERIAL IS ENCOUNTERED, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY. DO NOT DISTURB, HANDLE OR ATTEMPT TO REMOVE.

15. HCAI PRE-APPROVED DOCUMENTS

COPY OF HCAI PRE-APPROVED DOCUMENTS MUST BE MADE AVAILABLE AT THE JOB SITE AT ALL TIMES. INSTALLATION AND PRE-APPROVED
ITEMS MUST BE DONE IN A STRICT ACCORDANCE WITH THE PRE-APPROVED DOCUMENTS. IDENTIFY MANUFACTURER'S NAME & MODEL NO. IF APPLICABLE.

16. EQUIPMENT SUPPORTS AND ANCHORAGE

ANCHORAGE AND SUPPORTS OF ALL EQUIPMENT TO BE INSTALLED, AS A PART OF THIS PROJECT SHALL BE DETAILED ON CONSTRUCTION DOCUMENTS , EXCEPT THOSE EXEMPT BY 2022 CBC SECTION 1617A.1.18. EQUIPMENT SUPPORTS AND ANCHORAGE SHALL BE APPROVED BY THE APPROPRIATE DESIGN PROFESSIONAL OF RECORD AND HCAI AS PART OF THE FIELD REVIEW/OBSERVATIONS. THE INSPECTOR OF RECORD (IOR) SHALL ASSURE THAT THE ABOVE REQUIREMENTS ARE REFORCED.

SCOPE OF WORK

THE PROJECT SCOPE INVOLVES THE ADDITION OF A NEW CATH LAB SUITE LOCATED ON LEVEL 1 OF THE EXISTING HOSPITAL, CURRENTLY OCCUPIED BY PHYSICAL THERAPY & OCCUPATIONAL THERAPY. THIS SUITE WILL HAVE TWO CATH LAB PROCEDURE ROOMS, EACH WITH A DEDICATED CONTROL ROOM AND TECH. ROOM ALONG WITH OTHER SUPPORTS SPACES. SCOPE ALSO INCLUDES EXPANSION OF EXISTING HYPERBARIC CHAMBER ROOM TO ACCOMMODATE ADDITIONAL HYPERBARIC CHAMBER AND ITS SUPPORT SPACES. HYPERBARIC THERAPY AREA IS LISTED AS CATEGORTY 1 WITH CLASS B CHAMBERS IN ACCORDANCE WITH NFPA 99 (2018) 14.1.3. BC\
PROJECT AREA IS APPROXIMATELY 9,320 SF.
CATH LAB ROOMS ARE A CLASS 2 IMAGING ROOM PER TABLE 1224.4.11.4a.

FACILITY MAPS & BUILDING INFORMATION

Riverside University HEALTH SYSTEM

Campus & Parking Map



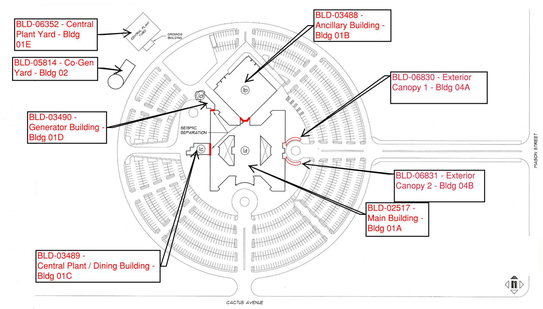
Staff Parking Lot
Staff Carpool Only
Patient/Visitor Parking lot
EV Charging
Handicap Parking
Panera Bread
Emergency
Hospital Entrance
Clinic/Outpatient Entrance
Ambulance Path

26600 Cactus Avenue, Moreno Valley, CA 92555 / 951-988-9500 / RUHealth.org

VICINITY MAP



VICINITY MAP



RIVERSIDE UNIVERSITY HEALTH SYSTEM - MEDICAL CENTER
Facility No. 15007
11/16/2021

BUILDING INFORMATION

PROJECT LOCATION

RIVERSIDE UNIVERSITY HEALTH SYSTEM
26520 CACTUS AVENUE
MORENO VALLEY, CA 92555

CONSTRUCTION TYPE / OCCUPANCY

CONSTRUCTION TYPE I-A, INSTITUTIONAL OCCUPANCY GROUP I-2, FULLY SPRINKLERED

BUILDING DATA

1 BASEMENT LEVEL, 4 STORIES, AND ROOF
TOTAL HEIGHT: 0'-0" (MEASURED FROM GROUND LEVEL)
362 TOTAL BEDS

HCAI FACILITY AND BUILDING NUMBER

FACILITY No.: 15007
HCAI ID: 106334487
BLD-02517 - MAIN HOSPITAL - ORIGINAL BUILDING

STRUCTURAL PERFORMANCE CATEGORY

BLD-02517: SPC-5

NON-STRUCTURAL PERFORMANCE CATEGORY

BLD-02517: NPC-2

HCAI DEFERRED APPROVAL ITEMS

1. FIRE SPRINKLER - REWORK EXISTING SYSTEM TO CONFORM TO A NEW SPACE CONFIGURATION. ADD DEVICES AS NECESSARY FOR NEW ROOMS. MATCH DEVICES TO MANUFACTURER OF CURRENT SYSTEM. OBTAIN LOCAL FIRE AUTHORITY APPROVAL FOR CHANGES TO THE FIRE SPRINKLER SYSTEM AS PART OF THE DEFERRED APPROVAL REQUIREMENTS. REFER TO DOCUMENT (HTTPS://HCAI.CA.GOV/WP-CONTENT/UPLOADS/2020/10/FLSO-2019-LOCAL-FIRE-AUTHORITY-APPROVAL.PDF)
2. FIRE ALARM - REWORK EXISTING SYSTEM TO CONFORM TO NEW SPACE CONFIGURATION. RELOCATE HEADS TO COVER THE AREAS AS NEEDED. BRANCH MODIFICATIONS ONLY. ALL MAIN LINES ARE EXISTING TO REMAIN. MATCH TYPE, STYLE AND FINISH OF EXISTING SPRINKLER HEADS. OBTAIN LOCAL FIRE AUTHORITY APPROVAL FOR CHANGES TO THE FIRE ALARM SYSTEM AS PART OF THE DEFERRED APPROVAL REQUIREMENTS. REFER TO DOCUMENT (HTTPS://HCAI.CA.GOV/WP-CONTENT/UPLOADS/2020/10/FLSO-2019-LOCAL-FIRE-AUTHORITY-APPROVAL.PDF)
3. MEP SEISMIC BRACING AND ASSOCIATED SUPPORTS - REQUIRED FOR ALL CONDUIT, DUCTWORK, AND PIPING WHICH DOES NOT MEET THE EXCEMPTION CRITERIA PER 2022 CBC SECTION 1617A.1.24, 1617A.1.25 OR 1617A.1.26. USE PRE-APPROVED SYSTEMS BY A SINGLE MANUFACTURER - OPM-0043-13, OPM-0052-13 OR OPM-0403-13.
4. NURSE CALL

PROJECT TEAM

Client

RIVERSIDE UNIVERSITY HEALTH SYSTEM - MEDICAL CENTER
26520 CACTUS AVENUE
MORENO VALLEY, CA 92555
PH: 951.955.4728

CONTACT: NAHID SELBE

Architect

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LOS ANGELES, CA 90017
PH: (213) 629-0100
FX: (213) 629-0070

CONTACT: STEVEN HENRICH, AIA

Structural

ABSG CONSULTING
420 EXCHANGE, Suite 200
Irvine California 92602
PH: (714) 734-2522

CONTACT: Mike Riley

Mechanical/Plumbing/Electrical/Lighting

EXP
5670 Oberlin Drive
San Diego, CA 92121
PH: (858) 401-8183

CONTACT: Falgun Trivedi

Medical Equipment Consultant

NH Planning
2359 Sunningdale Drive
Tustin California 92782
PH: (949) 385-1813

CONTACT: Nancy Heung

Cost Estimate

MGAC
950 South Grand Avenue, 2nd floor
Los Angeles California 90015
PH: (213) 417-7530

CONTACT: Rick Lloyd

Door Hardware

OCI
PH: (949) 388-6571

CONTACT: Michael Rice

Specifications

AWC|West
24990 Greensbrier Drive
Stevenson Ranch, California 91381
PH: (661) 287-4211
CONTACT: Andrew West

Radiation Shielding

Therapy Physics, Inc.
2501 Cherry Avenue, Suite 270
Signal Hill, California 90755
PH: (310) 612-8127

CONTACT: Melissa Martin

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER
26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY
550 SOUTH HOPE STREET, SUITE 2700
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TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HENRICH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

BC\

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
GENERAL PROJECT INFORMATION

SHEET NUMBER
GI001

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7/12/2024 2:41:16 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

ABBREVIATIONS

A		FHC	FIRE HOSE CABINET	PART	PARTITION
A/C	AIR CONDITIONING	FIN	FINISH	PAVT	PAVEMENT
AB	ANCHOR BOLT / AIR BLENDER	FIX	FIXTURE	PC	POINT OF CURVATURE / PRIVACY CURTAIN
ABS	ACRYLONITRILE-BUTADIENE-STYRENE	FL	FLOOR	PCF	POUNDS PER CUBIC FOOT
AC	ALTERNATING CURRENT / AIR COMPRESSOR	FM	FORCE MAIN / FACTORY MUTUAL	PED	PEDESTAL
ACP	ASBESTOS CEMENT PIPE	FP	FIREPROOFING / FIRE PUMP	PERP	PERPENDICULAR
ACU	AIR CONDITIONING UNIT	FPM	FEET PER MINUTE	PHC	PREHEAT COIL
AD	AREA DRAIN	FR	FIRE RATED	PHVAC	PLUMBING, HEATING, VENTILATING AND AIR CONDITIONING
ADA	AMERICANS WITH DISABILITIES ACT	FRP	FIBERGLASS REINFORCED PLASTIC		
ADJ	ADJACENT / ADJUSTABLE	FS	FLOW SWITCH	PI	POINT OF INTERSECTION
ADR	ACCESS DOOR	FT	FEET	PIV	POST INDICATOR VALVE
AFF	ABOVE FINISH FLOOR	FTG	FOOTING	PKG	PARKING
AHU	AUTHORITY HAVING JURISDICTION	FVC	FIRE VALVE CABINET	PL	PLASTIC LAMINATE / PROPERTY LINE / PLATE
AHU	AIR HANDLING UNIT	G		PLAS	PLASTER
AL	ALUMINUM	G	GAS / GRILLE	PLBG	PLUMBING
ALT	ALTERNATE	GA	GAGE	PLF	POUNDS PER LINEAR FOOT
APC	ACOUSTICAL PANEL CEILING	GALV	GALVANIZED	PLYWD	PLYWOOD
APPROX	APPROXIMATELY	GB	GRAB BAR	PNL	PANEL
APT	APARTMENT	GBD	GRAVITY BACKDRAFT DAMPER	POL CONC	POLISHED CONCRETE
ARCH	ARCHITECT(URAL)	GEN	GENERATOR	PR	PAIR
ASPH	ASPHALT	GFRC	GLASS FIBER REINFORCED CONCRETE	PRF	POURED RESINOUS FLOORING
ATB	AIR TERMINAL BOX	GI	GALVANIZED IRON	PROJ	PROJECTION
ATC	ACOUSTICAL TILE CEILING	GL	GLASS	PRV	PRESSURE REGULATING VALVE
ATD	AIR TRANSFER DUCT	GLB	GLASS BLOCK	PSF	POUNDS PER SQUARE FOOT
ATU	AIR TERMINAL UNIT	GLP	GLASS PANEL	PSI	POUNDS PER SQUARE INCH
AUX	AUXILIARY	GLT	GLASS TILE	PT	POINT OF TANGENCY
AVG	AVERAGE	GP	GLAZED PAINT	PTB	PORCELAIN TILE BASE
AWT	ACOUSTICAL WALL TREATMENT	GPM	GALLONS PER MINUTE	PTF	PORCELAIN TILE FLOOR
AZ	AZIMUTH	GR	GRADE	PTVC	POINT OF VERTICAL CURVATURE
B		GRV	GRAVITY ROOF VENTILATOR	PTW	PORCELAIN TILE WALL
BB	BALLED AND BURLAPPED	GT	GROUT	PVC	POLYVINYL CHLORIDE
BD	BOARD	GWB	GYPSUM WALLBOARD	PVI	POINT OF VERTICAL INTERSECTION
BDD	BACK DRAFT DAMPER	GYP	GYPSUM	PVT	POINT OF VERTICAL TANGENCY
BE	BOTTOM ELEVATION	H		Q	
BL	BUILDING LINE	HB	HOSE BIBB	QTB	QUARRY TILE BASE
BLDG	BUILDING	HC	HEATING COIL	QTF	QUARRY TILE FLOOR
BLKG	BLOCKING	HDNR	HARDENER	QZP	QUARTZ POLYMER
BM	BENCH MARK / BEAM	HDW	HARDWARE	R	
BR	BARE ROOT	HDWD	HARDWOOD	R	RADIUS / REGISTER
BRG	BEARING	HK1E	HOOK ONE END	RA	RETURN AIR
BTU	BRITISH THERMAL UNIT	HK2E	HOOK TWO ENDS	RAF	RAISED ACCESS FLOORING
BTUH	BRITISH THERMAL UNIT PER HOUR	HM	HOLLOW METAL	RB	RESILIENT BASE
C		HNDRL	HANDRAIL	RCP	REINFORCED CONCRETE PIPE
C/C	CENTER TO CENTER	HORIZ	HORIZONTAL	RD	ROOF DRAIN
CAB	CABINET	HP	HORSEPOWER	REF	REFERENCE
CB	CIRCUIT BREAKER / CATCH BASIN	HPT	HIGH POINT	REFL	REFLECTED
CC	COOLING UNIT	HR	HOUR	REG	REGISTER
CE	COVER ELEVATION	HS	HIGH STRENGTH	REINF	REINFORCED
CEM	CEMENT	HT	HEIGHT	REQD	REQUIRED
CFM	CUBIC FEET PER MINUTE	HTG	HEATING	REV	REVERSE / REVISION
CG	CORNER GUARD	HTR	HEATER	RF	RETURN FAN
CH	CHILLER	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	RGS	RIGID GALVANIZED STEEL
CI	CURB INLET / CAST IRON			RH	ROOF HOOD / RELATIVE HUMIDITY / REHEAT
CIP	CAST IRON PIPE	HW	HOT WATER	RHC	REHEAT COIL
CJ	CONTROL JOINT OR CONTRACTION JOINT	HWC	HOT WATER CIRCULATING	RM	ROOM
CKT	CIRCUIT	HZ	HERTZ	RO	ROUGH OPENING
CL	CENTER LINE	I		ROW	RIGHT OF WAY
CLG	CEILING	IA	INSTRUMENT AIR	RS	RESILIENT SHEET
CLO	CLOSET	IC	INTERCOM	RT	RESILIENT TILE
CLR	CLEAR	ID	INSIDE DIAMETER	S	
CM	CENTIMETER	IE	INVERT ELEVATION	S	STAIR / STAIN / SURFACE / SANITARY
CMH	CUBIC METER PER HOUR	IF	INSIDE FACE	SA	SUPPLY AIR / SOUND ATTENUATOR
CMP	CORRUGATED METAL PIPE	IN	INCH	SAN	SANITARY
CMU	CONCRETE MASONRY UNIT	INSUL	INSULATION	SCH	SCHEDULE
CO	CLEANOUT / CARBON MONOXIDE	INT	INTERIOR	SD	SMOKE DAMPER / SUB DRAIN / STORM SEWER
CO2	CARBON DIOXIDE	J			
COL	COLUMN	JAN	JANITOR	SECT	SECTION
COMB	COMBINATION / COMBINE	JB	JUNCTION BOX	SF	SUPPLY FAN
COMP	COMPRESSIBLE	JP	JOCKEY PUMP	SHT	SHEET
CONC	CONCRETE	JST	JOIST	SIM	SIMILAR
CONN	CONNECTION	JT	JOINT	SOG	SLAB-ON-GRADE
CONST	CONSTRUCTION	K		SP	SUMP PUMP
CONT	CONTINUOUS / CONTINUATION	KC MIL	THOUSAND CIRCULAR MILS	SPEC	SPECIFICATIONS
CONTR	CONTRACTOR	KCJ	KEYED CONSTRUCTION JOINT	SQ	SQUARE
CORR	CORRIDOR	KIT	KITCHEN	SS	SERVICE SINK / SANITARY SEWER
CP	CEMENT PIPE	KPA	KILOPASCALS	SSM	SOLID SURFACE MATERIAL
CPT	CARPET	KS	KITCHEN SINK		
CR	CRASH RAIL	KV	KILOVOLT	SSO	STORM SEWER OVERFLOW
CS	CONCRETE SEALER	KVA	KILOVOLT AMPERE	SST	STAIR TREAD
CSF	CUBIC FEET PER SECOND	KW	KILOWATTS	SSTL	STAINLESS STEEL
CT	CERAMIC TILE / COOLING TOWER	L		STA	STATION
CTB	CERAMIC TILE BASE	L	LITER	STD	STANDARD
CTF	CERAMIC TILE FLOOR	LA	LABORATORY AIR	STE	STANDARD TAPERED END
CTR	CENTER	LAB	LABORATORY	STIFF	STIFFENER
CTW	CERAMIC TILE WALL	LAM	LAMINATE	STIR	STIRRUP
CU	CONDENSING UNIT	LAV	LAVATORY	STL	STEEL
CUH	CABINET UNIT HEATER	LBS	POUNDS	STOR	STORAGE
CUYD	CUBIC YARD	LF	LINEAR FEET	STR	STRUCTURAL
CW	COLD WATER	LIN	LINEAR	SUSP	SUSPENDED
D		LINO	LINOLEUM	SW	SWITCH
D	DRAIN / DIFFUSER	LL	LIVE LOAD	SWGR	SWITCHGEAR
DA	DENTAL AIR	LLH	LONG LEG HORIZONTAL	SYM	SYMMETRICAL
DBL	DOUBLE	LLV	LONG LEG VERTICAL	T	
DEPR	DEPRESSED	LMU	LIGHTWEIGHT MASONRY UNITS	T	TREAD
DEPT	DEPARTMENT	LONG	LONGITUDINAL	T&B	TOP AND BOTTOM
DET	DETAIL	LPM	LITERS PER MINUTE	T&G	TONGUE AND GROOVE
DF	DRINKING FOUNTAIN	LT	LIGHT	TC	TOP OF CURB
DIA	DIAMETER	LT WT	LIGHT WEIGHT	TE	TOP ELEVATION
DIAG	DIAGONAL	LTG	LIGHTING	TEL	TELEPHONE
DIFF	DIFFUSER	LV	LABORATORY VACUUM	TEMP	TEMPERATURE
DIP	DUCTILE IRON PIPE	LVL	LEVEL	TERR	TERRAZZO
DISC	DISCONNECT	LVT	LUXURY VINYL TILE	TLT	TOILET
DISP	DISPENSER	M		TOPO	TOPOGRAPHY
DIST	DISTRIBUTION	M	METER	TOS	TOP OF STEEL
DK	DECK	M2	SQUARE METER	TOW	TOP OF WALL
DL	DEAD LOAD	M3	CUBIC METER	TP	TOP OF PAVEMENT
DN	DOWN	MA	MEDICAL AIR	TRANS	TRANSVERSE
DO	DITTO	MAINT	MAINTENANCE	TS	TRANSITION STRIP
DPR	DAMPER	MAR	MARBLE	TYP	TYPICAL
DR	DOOR	MAS	MASONRY	U	
DS	DOWNSPOUT	MAT	MATERIAL	UC	UNDERCUT
DV	DENTAL VACUUM	MAX	MAXIMUM	UG	UNDERGROUND
DWG	DRAWING	MB	METAL BASE	UH	UNIT HEATER
DWL	DOWEL	MBH	1000 BTUH	UNO	UNLESS NOTED OTHERWISE
DWP	DOMESTIC WATER PUMP	MDO	MEDIUM DENSITY OVERLAY	UR	URINAL
E		MECH	MECHANICAL	UV	UNIT VENTILATOR
EA	EACH / EXHAUST AIR	MET	METAL	V	
ECT	ENTRY CARPET TILE	MFR	MANUFACTURER	V	VOLT
EF	EACH FACE / EXHAUST FAN	MG	MOTOR GENERATOR / MEDICAL GAS	VAV	VARIABLE AIR VOLUME
EJ	EXPANSION JOINT	MH	MANHOLE	VC	VERTICAL CURVE
EL	ELEVATION	MIN	MINIMUM	VCP	VITRIFIED CLAY PIPE
ELEC	ELECTRIC(AL)	MLO	MAIN LUGS ONLY	VCT	VINYL COMPOSITION TILE
ELEV	ELEVATOR	MM	MILLIMETER	VERT	VERTICAL
EMBED	EMBEDMENT	MO	MASONRY OPENING	VEST	VESTIBULE
EMD	ESTIMATED MAXIMUM DEMAND	MP	METAL PANEL	VFD	VARIABLE FREQUENCY DRIVE
EMT	ELECTRICAL METAL TUBING	MT	METAL TRANSITION	VTR	VENT THROUGH ROOF
ENG	ENTRANCE GRATING	MTD	MOUNTED	VWC	VINYL WALL COVERING
EP	EPOXY PAINT	MTG	MOUNTING	W	
EQ	EQUAL	MULL	MULLION	W	WATT / WATER
EQUIP	EQUIPMENT	MV	MEDICAL VACUUM	W/	WITH
ET	EXPANSION TANK / EPOXY TERRAZZO	N		W/O	WITHOUT
ETB	EPOXY TERRAZZO INTEGRAL COVE BASE	N	NITROGEN	WAGD	WASTE ANESTHESIA GAS DISPOSAL
EVAC	MEDICAL GAS EVACUATION	N2O	NITROUS OXIDE	WC	WATER CLOSET / WALL COVERING
EW	EACH WAY	NEC	NATIONAL ELECTRICAL CODE	WD	WOOD
EWC	ELECTRICAL WATER COOLER	NFPA	NATIONAL FIRE PROTECTION	WDB	WOOD BASE
EWH	ELECTRICAL WATER HEATER	NIC	NOT IN CONTRACT	WDF	WOOD FLOOR
EXH	EXHAUST	NO	NUMBER	WDP	WOOD PANEL
EXP	EXPOSED	NOM	NOMINAL	WDW	WINDOW
EXPN	EXPANSION	NTS	NOT TO SCALE	WDWF	WINDOW FILM
EXST	EXISTING	O		WGD	WALL GUARD
EXT	EXTERIOR	O/S	OFFSET	WH	WATER HEATER / WALL HYDRANT
F		OA	OUTSIDE AIR	WP	WEATHERPROOF
F	FIRE MAIN	OBD	OPPOSED BLADE DAMPER	WPFG	WATERPROOFING
FA	FIRE ALARM	OC	ON CENTER	WS	WATER STOP
FCU	FAN COIL UNIT	OD	OUTSIDE DIAMETER	WT	WEIGHT / WINDOW TREATMENT
FD	FLOOR DRAIN / FIRE DAMPER	OF	OUTSIDE FACE	WWF	WELDED WIRE FABRIC
FD / SD	COMBINATION FIRE AND SMOKE DAMPER	OPNG	OPENING	X	
FDC	FIRE DEPARTMENT CONNECTION	OPP	OPPOSITE	XFMR	TRANSFORMER
FDN	FOUNDATION	OX	OXYGEN	Y	
FDR	FEEDER	OZ	OUNCE	YD	YARD
FE	FIRE EXTINGUISHER	P		YH	YARD HYDRANT
FEC	FIRE EXTINGUISHER CABINET	P	PAINT / PUMP / PENDANT		
FF&E	FURNITURE, FIXTURE, AND EQUIPMENT	PA	PASCAL		
FH	FIRE HYDRANT				

SHEET INDEX

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GI002	SYMBOLS, SHEET INDEX, ABBREVIATION	•	•	•
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GI004	ADA TOILET FIXTURE AND SHOWER STANDARDS		•	•
GI101	EXITING LIFE SAFETY PLANS	•	•	•
BC1 GI102	LIFE SAFETY PLAN		•	•
GI200	AMC		•	•
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S002	GENERAL NOTES 2	•	•	
S003	TYPICAL DETAILS			
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S112	LEVEL 2 - PARTIAL FRAMING PLAN			
S113	PARTIAL THIRD LEVEL FRAMING PLAN			
S211	ENLARGED PLANS			
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S502	DETAILS			
S503	ANCHORAGE DETAILS			
S504	ANCHORAGE DETAILS			
S505	ANCHORAGE DETAILS			
S506	ANCHORAGE DETAILS			
S507	ANCHORAGE DETAILS			
S509	SECTIONS AND DETAILS			
ARCHITECTURAL				
BC2 AD101	PHASING PLAN - LEVEL 1 - DEMO - PHASE 1 (VOID)			
AD111	PARTIAL FLOOR PLAN - LEVEL 1 - DEMO			
AD112	PARTIAL FLOOR PLAN - LEVEL 2 & 3 - DEMO	•	•	•
AD121	PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - DEMO	•	•	•
AD151	PHASING PLAN - LEVEL 1 - FLOOR PLAN - DEMO	•	•	•
AD152	PHASING PLAN - LEVEL 1 - REFLECTED CEILING PLAN - DEMO	•	•	•
AE110	PARTIAL FLOOR PLAN - LEVEL LOWER -EXISTING CONDITION	•	•	•
AE111	PARTIAL FLOOR PLAN - LEVEL 1 - REMODEL	•	•	•
AE112	PARTIAL FLOOR PLAN - LEVEL 2 - REMODEL AND PARTIAL ROOF PLAN	•	•	•
AE121	PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - REMODEL	•	•	•
AE131	IMAGING EQUIPMENT ENLARGED PLAN - CATH LAB	•	•	•
AE132	IMAGING EQUIPMENT ENLARGED REFLECTED CEILING PLAN - CATH LAB	•	•	•
AE141	SHIELDING PLAN - LEVEL 1 - CATH LABS	•	•	•
AE151	PHASING PLAN - LEVEL 1 - FLOOR PLAN - REMODEL	•	•	•
AE152	PHASING PLAN - LEVEL 1 - REFLECTED CEILING PLAN - REMODEL	•	•	•
AE221	ENLARGED REMODEL CEILING PLAN	•	•	•
AE301	PARTIAL BUILDING SECTION @ CATH LAB - EAST/WEST	•	•	•
AE302	PARTIAL BUILDING SECTION @ CATH LAB - NORTH/SOUTH	•	•	•
AE401	ENLARGED PLANS & ELEVATIONS - WAITING/OFFICE, STAFF LOUNGE AND LOCKERS	•	•	•
AE402	ENLARGED PLANS & ELEVATIONS - CATH LAB, CONTROL AND EQUIP RM	•	•	•
AE403	ENLARGED PLANS & ELEVATIONS - PRE/POST PROCEDURE AREA	•	•	•
AE404	ENLARGED PLANS & ELEVATIONS - HYPERBARIC CHAMBER	•	•	•
AE511	PARTITION TYPES	•	•	•
AE512	DETAILS - PARTITIONS	•	•	•
AE513	DETAILS - PARTITIONS	•	•	•
AE514	DETAILS - PARTITIONS	•	•	•
AE515	DETAILS - PARTITIONS	•	•	•
AE516	DETAILS - PARTITION	•	•	•
AE517	DETAILS - PARTITION	•	•	•
AE518	DETAILS - CEILINGS	•	•	•
BC2 AE519	DETAILS - CEILINGS			
AE519A	CEILING DETAILS			
AE520	SOFFIT DETAILS			
AE531	UL DETAILS	•	•	•
BC1 AE532	UL DETAILS	•	•	•
AE533	UL DETAILS	•	•	•
BC2 AE534	UL DETAILS			
AE535	UL DETAILS			
AE536	UL DETAILS			
AE541	DETAILS - MISCELLANEOUS	•	•	•
AE551	DETAILS - DOOR AND WINDOW	•	•	•
AE561	DETAILS - CASEWORK SECTIONS	•	•	•
AE562	DETAILS - CASEWORK SECTIONS	•	•	•
AE601	DOOR SCHEDULE, DOOR TYPES, AND FRAMES	•	•	•
AE602	CASEWORK ELEVATION TYPES	•	•	•

SHEET INDEX

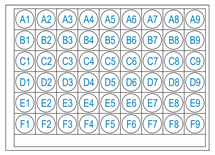
SHEET NUMBER	SHEET NAME	PLAN REVIEW	BACK CHECK 1	BACK CHECK 2
INTERIOR				
IE101	FLOOR FINISH PLAN	•	•	•
IE102	WALL FINISH PLAN	•	•	•
IE131	FURNITURE PLAN - ZONE A	•	•	•
IE132	FURNITURE PLAN - ZONE B	•	•	•
IE133	FURNITURE PLAN - ZONE C	•	•	•
IE601	FINISH SCHEDULE AND SCHEDULE FOR FINISHES	•	•	•
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EQ101B	EQUIPMNET PLAN LEVEL 1 - AREA B	•	•	•
EQ401	CATH LAB ENLARGED EQUIPMENT PLAN	•	•	•
EQ701	MEDICAL EQUIPMENT SCHEDULE	•	•	•
EQ702	MEDICAL EQUIPMENT SCHEDULE	•	•	•
PLUMBING				
PI001	PLUMBING LEAD SHEET	•	•	•
PI001	PLUMBING LEAD SHEET	•	•	•
PD110	LOWER LEVEL - PLUMBING DEMOLITION PLAN	•	•	•
PD110	LOWER LEVEL - PLUMBING DEMOLITION PLAN	•	•	•
PD111	LEVEL 1 - PLUMBING DEMOLITION PLAN	•	•	•
PD111	LEVEL 1 - PLUMBING DEMOLITION PLAN	•	•	•
PD151	LEVEL 1 - PLUMBING DEMOLITION PHASING PLAN	•	•	•
PD151	LEVEL 1 - PLUMBING DEMOLITION PHASING PLAN	•	•	•
PE100	LOWER LEVEL - PLUMBING PLAN - A	•	•	•
PE100	LOWER LEVEL - PLUMBING PLAN - A	•	•	•
PE101	LOWER LEVEL - PLUMBING PLAN - B	•	•	•
PE101	LOWER LEVEL - PLUMBING PLAN - B	•	•	•
PE111	LEVEL 1 - PLUMBING PLAN	•	•	•
PE111	LEVEL 1 - PLUMBING PLAN	•	•	•
PE113	LEVEL 3 - PLUMBING ROOF PLAN	•	•	•
PE113	LEVEL 3 - PLUMBING ROOF PLAN	•	•	•
PE151	LEVEL 1 - PLUMBING PHASING PLAN	•	•	•
PE151	LEVEL 1 - PLUMBING PHASING PLAN	•	•	•
PE201	PLUMBING ENLARGED PLAN	•	•	•
PE201	PLUMBING ENLARGED PLAN	•	•	•
PE202	PLUMBING ENLARGED PLAN	•	•	•
PE202	PLUMBING ENLARGED PLAN	•	•	•
PE501	PLUMBING DETAILS	•	•	•
PE501	PLUMBING DETAILS	•	•	•
PE601	PLUMBING SCHEDULES	•	•	•
PE601	PLUMBING SCHEDULES	•	•	•
MECHANICAL				
MI001	MECHANICAL LEAD SHEET	•	•	•
MD111	LEVEL 1 - MECHANICAL DEMOLITION PHASE 1 PLAN - BYPASS DUCTWORK & WORK OUTSIDE OF REMODEL SHOWN	•	•	•
MD112	MECHANICAL DEMOLITION PHASE 2 PLAN	•	•	•
MD211	LEVEL 2 - MECHANICAL DEMOLITION PLAN - BYPASS DUCTWORK & PHASE 1 NEW MECHANICAL PLAN	•	•	•
ME101	LEVEL 1 - ZONE PLAN	•	•	•
ME210	MECHANICAL ENLARGED PLAN REMODEL - LOWER LEVEL	•	•	•
ME211	MECHANICAL ENLARGED PLAN REMODEL PHASE 1 - LEVEL 1 - NORTH	•	•	•
ME212	MECHANICAL ENLARGED PLAN REMODEL PHASE 1 - LEVEL 1 - SOUTH	•	•	•
ME213	MECHANICAL ENLARGED PLAN - LEVEL 3 - ROOF	•	•	•
ME214	MECHANICAL ENLARGED PLAN REMODEL PHASE 2 - LEVEL 1	•	•	•
ME311	MECHANICAL ENLARGED PLAN - SECTION VIEWS	•	•	•
ME501	MECHANICAL DETAILS	•	•	•
ME502	MECHANICAL DETAILS	•	•	•
ME503	MECHANICAL DETAILS	•	•	•
ME601	MECHANICAL AIR BALANCE	•	•	•
ME602	MECHANICAL CONTROLS	•	•	•
ME603	MECHANICAL CONTROLS	•	•	•
ME604	MECHANICAL SCHEDULES	•	•	•
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EI001	ELECTRICAL LEAD SHEET	•	•	•
EI002	ELECTRICAL TELECOMM LEAD SHEET	•	•	•
EI003	ELECTRICAL TELECOMM RESPONSIBILITY MATRIX	•	•	•
ED151	PHASING PLAN - LVL 1 - ELEC POWER PLAN - DEMO	•	•	•
ED152	PHASING PLAN - LVL 1 - ELEC LIGHTING PLAN - DEMO	•	•	•
EE100	BUILDING OVERALL ELEC FLOOR PLANS	•	•	•
EE111	PHASING PLAN - LEVEL 1 - ELECTRICAL POWER & FIRE ALARM PLAN - REMODEL	•	•	•
EE112	PHASING PLAN - LEVEL 1 - ELECTRICAL LIGHTING PLAN - REMODEL	•	•	•
EE112A	PHASING PLAN - LEVEL 1 - ELECTRICAL LIGHTING EGRESS PLAN - REMODEL	•	•	•
EE113	PHASING PLAN - LEVEL 1 - ELECTRICAL TELECOMM PLAN - REMODEL	•	•	•
EE114	ROOF - ELECTRICAL POWER PLAN	•	•	•
EE201	ELECTRICAL TELECOMM ENLARGED PLANS	•	•	•
EE202	ELECTRICAL TELECOMM ENLARGED PLANS	•	•	•
EE203	ELECTRICAL TELECOMM ENLARGED PLANS	•	•	•
EE501	ELECTRICAL DETAILS	•	•	•
EE502	ELECTRICAL TELECOMM DETAILS	•	•	•
EE503	ELECTRICAL TELECOMM DETAILS	•	•	•
EE504	ELECTRICAL TELECOMM DETAILS	•	•	•
EE505	ELECTRICAL TELECOMM DETAILS	•	•	•
EE601	ELECTRICAL DIAGRAMS	•	•	•
EE602	ELECTRICAL TELECOMM RISER DIAGRAM	•	•	•
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EE604	ELECTRICAL PANEL SCHEDULES	•	•	•
EE605	ELECTRICAL PANEL SCHEDULES	•	•	•
EE606	ELECTRICAL SCHEDULES	•	•	•
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R1 C01	CATH LAB 1 - PHILIPS - COVER SHEET	•	•	•
R1 A0N	CATH LAB 1 - PHILIPS - GENERAL NOTES	•	•	•
R1 A03	CATH LAB 1 - PHILIPS - ELEVATION VIEW	•	•	•
R1 AD1	CATH LAB 1 - PHILIPS - TRANSPORT DETAILS	•	•	•
R1 AD2	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	•	•	•
R1 AD3	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	•	•	•
R1 AD4	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	•	•	•
R1 AD5	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	•	•	•
R1 AD7	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	•	•	•
R1 S0N	CATH LAB 1 - PHILIPS - SUPPORT NOTES	•	•	•
R1 S0L	CATH LAB 1 - PHILIPS - SUPPORT LEGEND	•	•	•
R1 S01	CATH LAB 1 - PHILIPS - SUPPORT LAYOUT, FLOOR & WALL	•	•	•
R1 S02	CATH LAB 1 - PHILIPS - SUPPORT, LAYOUT, CEILING	•	•	•
R1 S03	CATH LAB 1 - PHILIPS - SUPPORT ALYOUT, CEILING	•	•	•
R1 SD1	CATH LAB 1 - PHILIPS - SUPPORT DETAILS	•	•	•
R1 SD2	CATH LAB 1 - PHILIPS - SUPPORT DETAILS	•	•	•
R1 SD3	CATH LAB 1 - PHILIPS - SUPPORT DETAILS	•	•	•
R1 E0N	CATH LAB 1 - PHILIPS - ELECTRICAL NOTES	•	•	•
R1 EL1	CATH LAB 1 - PHILIPS - ELECTRICAL LEGEND	•	•	•
R1 EL2	CATH LAB 1 - PHILIPS - ELECTRICAL LEGEND	•	•	•
R1 E01	CATH LAB 1 - PHILIPS - ELECTRICAL LAYOUT	•	•	•
R1 E02	CATH LAB 1 - PHILIPS - RACEWAY & CONDUIT INFO	•	•	•
R1 E03	CATH LAB 1 - PHILIPS - RACEWAY & CONDUIT INFO	•	•	•
R1 E04	CATH LAB 1 - PHILIPS - RACEWAY & CONDUIT INFO	•	•	•
R1 ED1	CATH LAB 1 - PHILIPS - ELECTRICAL DETAILS	•	•	•
R1 ED2	CATH LAB 1 - PHILIPS - ELECTRICAL DETAILS	•	•	•
R1 ED3	CATH LAB 1 - PHILIPS - ELECTRICAL DETAILS	•	•	•
R1 ED4	CATH LAB 1 - PHILIPS - ELECTRICAL DETAILS	•	•	•
R1 N01	CATH LAB 1 - PHILIPS - REMOVE SERVICE NETWORK	•	•	•
R1 N02	CATH LAB 1 - PHILIPS - REMOVE SERVICE NETWORK	•	•	•
R1 CHK	CATH LAB 1 - PHILIPS - CHECKLIST	•	•	•
R2 CO1	CATH LAB 2 - PHILIPS - COVER SHEET	•	•	•
R2 A0N	CATH LAB 2 - PHILIPS - GENERAL NOTES	•	•	•
R2 A0L	CATH LAB 2 - PHILIPS - EQUIPMENT LEGEND	•	•	•
R2 A01	CATH LAB 2 - PHILIPS - SITE LAYOUT	•	•	•
R2 A02	CATH LAB 2 - PHILIPS - EQUIPMENT LAYOUT	•	•	•
R2 A03	CATH LAB 2 - PHILIPS - ELEVATION VIEW	•	•	•
R2 AD1	CATH LAB 2 - PHILIPS - TRANSPORT DETAILS	•	•	•
R2 AD2	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS	•	•	•
R2 AD3	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS	•	•	•
R2 AD4	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS	•	•	•
R2 AD6	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS	•	•	•
R2 AD7	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS	•	•	•
R2 S0N	CATH LAB 2 - PHILIPS - SUPPORT NOTES	•	•	•
R2 S0L	CATH LAB 2 - PHILIPS - SUPPORT LEGEND	•	•	•
R2 S01	CATH LAB 2 - PHILIPS - SUPPORT LAYOUT, FLOOR & WALL	•	•	•
R2 S02	CATH LAB 2 - PHILIPS - SUPPORT LAYOUT, CEILING	•	•	•
R2 S03	CATH LAB 2 - PHILIPS - SUPPORT LAYOUT, CEILING	•	•	•
R2 SD1	CATH LAB 2 - PHILIPS - SUPPORT DETAILS	•	•	•
R2 SD2	CATH LAB 2 - PHILIPS - SUPPORT DETAILS	•	•	•
R2 SD3	CATH LAB 2 - PHILIPS - SUPPORT DETAILS	•	•	•
R2 E0N	CATH LAB 2 - PHILIPS - ELECTRICAL NOTES	•	•	•
R2 EL1	CATH LAB 2 - PHILIPS - ELECTRICAL LEGEND	•	•	•
R2 EL2	CATH LAB 2 - PHILIPS - ELECTRICAL LEGEND	•	•	•
R2 E01	CATH LAB 2 - PHILIPS - ELECTRICAL LAYOUT	•	•	•
R2 E02	CATH LAB 2 - PHILIPS - RACEWAY & COUNDUIT INFO	•	•	•
R2 E03	CATH LAB 2 - PHILIPS - RACEWAY & CONDUIT INFOR	•	•	•
R2 E04	CATH LAB 2 - PHILIPS - RACEWAY & CONDUIT INFO	•	•	•
R2 ED1	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS	•	•	•
R2 ED2	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS	•	•	•
R2 ED3	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS	•	•	•
R2 ED4	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS	•	•	•
R2 N01	CATH LAB 2 - PHILIPS - REVOE SERVICE NETWORK	•	•	•
R2 N02	CATH LAB 2 - PHILIPS - REMOVE SERVICE NETWORK	•	•	•
R2 CHK	CATH LAB 2 - PHILIPS - CHECKLIST	•	•	•

VIEW NUMBERING MODULAR LAYOUT

VIEW NUMBERING LAYOUT
VIEWS ARE NUMBERED ACCORDING TO THEIR LOCATION ON EACH SHEET AND ARE NOT NUMBERED CONSECUTIVELY. EACH MODULE MAINTAINS THE NUMBER ASSOCIATED WITH IT

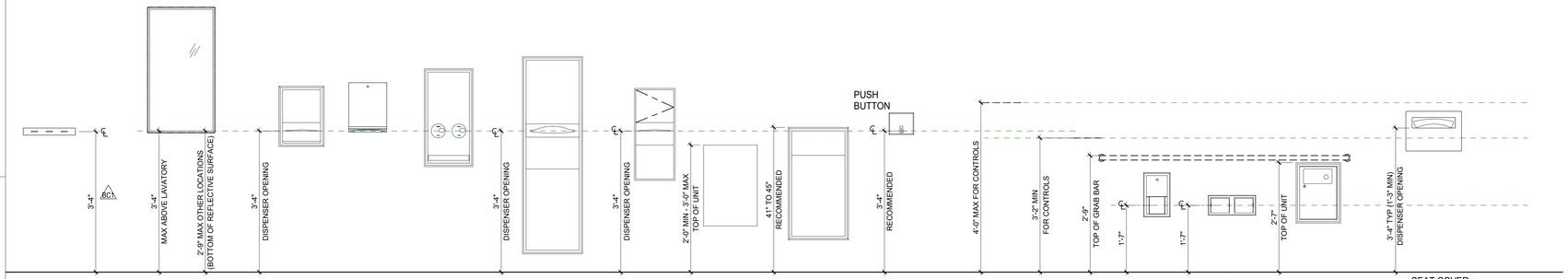
THIS SYSTEM CAN BE APPLIED TO ANY DRAWING THAT CONTAINS MULTIPLE IMAGES. THE IMAGES ARE NUMBERED ACCORDING TO THE MODULE SYSTEM SHOWN ILLUSTRATED TO THE LEFT

EACH VIEW MAY OCCUPY ONE OR MORE WHOLE MODULES. THE VIEW MODULE IS USED TO ESTABLISH THE IDENTIFYING LABEL FOR EACH DETAIL NOT TO LIMIT THE SIZE OF THE DETAIL



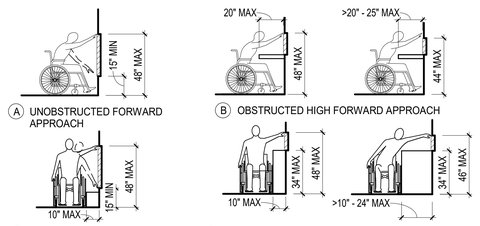
VIEW NUMBERING EXAMPLE
THE NUMBER OF THE MODULE WHICH OCCURS IN THE LOWER LEFT CORNER OF A SINGLE MODULE OR SEVERAL MODULES GROUPED TOGETHER WILL DEFINE THE FINAL VIEW NUMBER AS SHOWN IN THE ILLUSTRATION TO THE LEFT. ALTHOUGH THE MODULE NUMBERS OCCUR I

TYPICAL TOILET COMPARTMENT ACCESSORY MOUNTING HEIGHTS



F1 TYPICAL TOILET COMPARTMENT MMOUNTING HEIGHT

SCALE: 3/4" = 1'-0"



A UNOBSTRUCTED FORWARD APPROACH

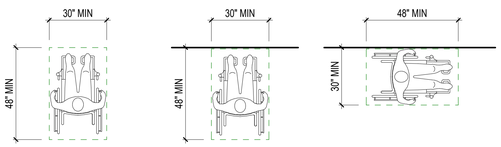
B OBSTRUCTED HIGH FORWARD APPROACH

C UNOBSTRUCTED SIDE APPROACH

D OBSTRUCTED HIGH SIDE APPROACH

E1 REACH RANGE

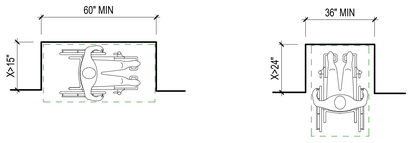
SCALE: 1/4" = 1'-0"



A CLEAR FLOOR OR GROUND CLEARANCE

B FORWARD APPROACH

C PARALLEL APPROACH

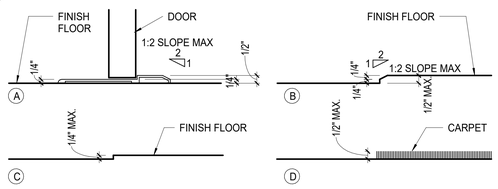


D CLEARANCE, ALCOVE, PARALLEL APPROACH

E CLEARANCE, ALCOVE, FORWARD APPROACH

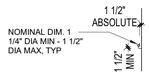
C1 GROUND AND FLOOR CLEARANCE

SCALE: 3/8" = 1'-0"

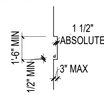


B1 CHANGE OF ELEVATION

SCALE: 3" = 1'-0"



A SURFACE-MOUNTED HANDRAIL SECTION



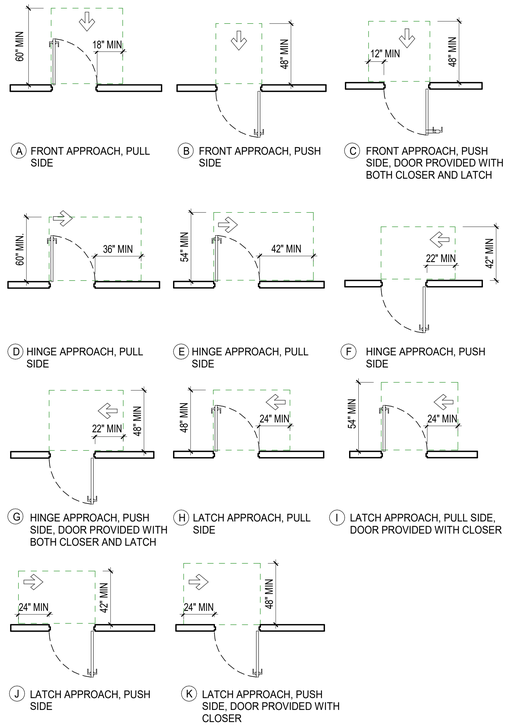
B RECESSED HANDRAIL SECTION

HANDRAIL NOTES:

1. HANDRAIL ENDS SHALL BE RETURNED SMOOTHLY TO A WALL, GUARD, LANDING SURFACE OR CONTINUOUS TO THE HANDRAIL OF AN ADJACENT RAMP.
2. HANDGRIP PORTION OF HANDRAILS SHALL HAVE A SMOOTH SURFACE WITH NO SHARP CORNERS AND UNINTERRUPTED. EDGES SHOULD HAVE A 1/8" RADIUS.
3. WALLS OR OTHER SURFACES ADJACENT TO THE HANDRAILS SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS

A1 HANDRAIL REQUIREMENTS

SCALE: 1/4" = 1'-0"



A FRONT APPROACH, PULL SIDE

B FRONT APPROACH, PUSH SIDE

C FRONT APPROACH, PUSH SIDE, DOOR PROVIDED WITH BOTH CLOSER AND LATCH

D HINGE APPROACH, PULL SIDE

E HINGE APPROACH, PULL SIDE

F HINGE APPROACH, PUSH SIDE

G HINGE APPROACH, PUSH SIDE, DOOR PROVIDED WITH BOTH CLOSER AND LATCH

H LATCH APPROACH, PULL SIDE

I LATCH APPROACH, PULL SIDE, DOOR PROVIDED WITH CLOSER

J LATCH APPROACH, PUSH SIDE

K LATCH APPROACH, PUSH SIDE, DOOR PROVIDED WITH CLOSER

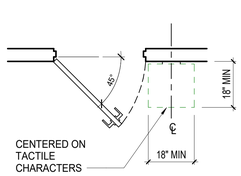
C3 ACCESSIBLE SWING DOOR CLEARANCES

SCALE: 1/4" = 1'-0"



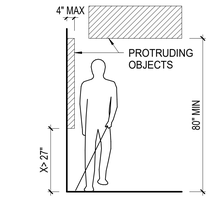
B3 ACCESSIBILITY SYMBOL

SCALE: 1/2" = 1'-0"



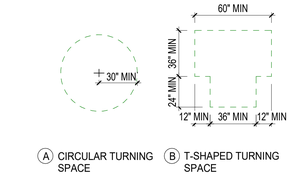
A3 TACTILE SIGN LOCATION @ DOORS

SCALE: 1/2" = 1'-0"



B4 PROTRUDING OBJECTS CLEARANCE

SCALE: 3/8" = 1'-0"

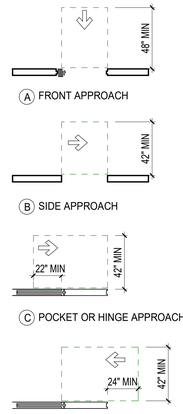


A CIRCULAR TURNING SPACE

B T-SHAPED TURNING SPACE

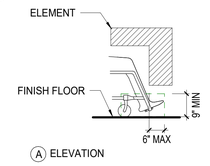
A4 TURNING SPACE

SCALE: 1/4" = 1'-0"

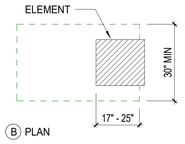


E5 DOORWAY CLEARANCES

SCALE: 1/4" = 1'-0"



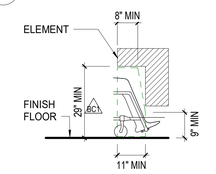
A ELEVATION



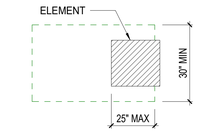
B PLAN

C5 TOE CLEARANCE

SCALE: 1/2" = 1'-0"



A ELEVATION



B PLAN

A5 KNEE CLEARANCE

SCALE: 1/2" = 1'-0"

SHEET NOTES

1. IN BUILDINGS AND FACILITIES, FLOORS OF A GIVEN STORY SHALL BE A COMMON LEVEL THROUGHOUT, OR SHALL BE CONNECTED BY PEDESTRIAN RAMPS, PASSENGER ELEVATORS OR SPECIAL ACCESS LIFTS.
2. FLOOR SURFACES SHALL BE SLIP-RESISTANT WITH MIN. WET COEFFICIENT OF FRICTION OF 0.7.
3. ABRUPT CHANGES IN LEVEL ALONG ANY ACCESSIBLE ROUTE SHALL NOT EXCEED 1/2" IN HEIGHT. LEVEL CHANGES NOT EXCEEDING 1/4" MAY BE VERTICAL, BEVEL OTHERS WITH A SLOPE NO GREATER THAN 1:2.
4. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. MOUNT DOOR OPENING HARDWARE BETWEEN 34" AND 48" ABOVE FLOOR FINISH.
5. CENTER HAND ACTIVATED DOOR OPENING HARDWARE BETWEEN 34" AND 48" ABOVE THE FLOOR.
6. MAXIMUM PULL OR PUSH EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 POUNDS FOR EXTERIOR DOORS AND 5 POUNDS FOR INTERIOR DOORS, MEASURED AT RIGHT ANGLES TO HINGED DOORS AND AT CENTER PLANE OF SLIDING OR FOLDING DOORS. CORRESPONDING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. MINIMUM EFFORT ALLOWABLE BY APPROPRIATE ADMINISTRATIVE AUTHORITY TO OPERATE REQUIRED FIRE DOORS MAY BE INCREASED NOT TO EXCEED 15 POUNDS.
7. THE BOTTOM 10" OF ALL DOORS (EXCEPT SLIDING AND AUTOMATIC) SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION. PROVIDE A 10" HIGH SMOOTH PANEL ON THE PUSH SIDE OF NARROW FRAME DOORS.
8. EVERY REQUIRED ENTRANCE OR PASSAGE DOORWAY SHALL BE NOT LESS THAN 3' IN WIDTH AND NOT LESS THAN 6'-8" IN HEIGHT. DOORS SHALL BE CAPABLE OF OPENING AT LEAST 90 DEGREES AND SHALL BE SO MOUNTED THAT THE CLEAR WIDTH OF THE DOORWAY IS NOT LESS THAN 32" WHEN DOOR IS 90 DEGREES OPEN.
9. WHERE A PAIR OF DOORS IS UTILIZED, AT LEAST ONE OF THE DOORS SHALL PROVIDE A CLEAR, UNOBSTRUCTED OPENING WIDTH OF 32" WITH THE LEAF POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION.
10. IDENTIFY ACCESSIBLE ENTRANCES WITH AT LEAST ONE STANDARD ISA SIGN AND WITH ADDITIONAL DIRECTIONAL SIGNS, AS REQUIRED, VISIBLE FROM APPROACHING PEDESTRIAN WAYS.
11. THE FLOOR OR LANDING ON EACH SIDE OF AN ENTRANCE OR PASSAGE DOOR SHALL BE LEVEL AND CLEAR. THE LEVEL AND CLEAR AREA SHALL HAVE A LENGTH IN THE DIRECTION OF DOOR SWING OF AT LEAST 72" AND THE LENGTH OPPOSITE THE DIRECTION OF DOOR SWING OF 48" AS MEASURED AT RIGHT ANGLES TO THE PLANE OF THE DOOR IN ITS CLOSED POSITION.
12. FLOORS OR LANDINGS SHALL BE NOT MORE THAN 1/2" LOWER THAN THE THRESHOLD OF THE DOORWAY. CHANGE IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2.
13. TO ALERT THE VISUALLY IMPAIRED, MARK THE UPPER APPROACH AND THE LOWER TREAD OF EACH INTERIOR STAIR WITH A STRIP OF VISUALLY CONTRASTING COLOR AT LEAST 2" WIDE, PLACED PARALLEL TO AND NOT MORE THAN 1" FROM THE NOSE OF THE STEP OR LANDING. THE STRIP SHALL BE OF A MATERIAL THAT IS AT LEAST AS SLIP RESISTANT AS THE OTHER TREADS OF THE STAIR.
14. THE BOTTOM OF THE ELECTRICAL RECEPTACLE BOX SHALL BE 15" AFF MIN. ABOVE THE FLOOR OR WORKING PLATFORM.
15. PROVIDE A CLEAR FLOOR SPACE 30" X 48" IN FRONT OF LAVATORY TO PERMIT A FORWARD APPROACH.
16. MOUNT LAVATORIES WITH A MINIMUM CLEARANCE OF 29" FROM THE FLOOR TO THE BOTTOM OF THE APRON. PROVIDE KNEE CLEARANCE UNDER THE FRONT LIP EXTENDING A MINIMUM OF 30" IN WIDTH WITH 8" MINIMUM DEPTH, AND SHALL BE A MINIMUM OF 9" HIGH FROM THE FLOOR A MINIMUM OF 17" DEEP FROM THE FRONT OF THE LAVATORY.
17. FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 POUNDS. LEVER OPERATED, PUSH TYPE AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF CLOSING ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.
18. INSULATE OR OTHERWISE COVER HOT WATER AND DRAIN PIPES UNDER LAVATORIES.
19. THE LOW DRINKING FOUNTAIN BUBBLER SHALL BE ACTIVATED BY A MANUALLY OPERATED SYSTEM NOT REQUIRING A FORCE GREATER THAN 5 LBS THAT IS LOCATED WITHIN 5 INCHES OF THE FRONT EDGE OF THE FOUNTAIN OR AN ELECTRONICALLY CONTROLLED DEVICE.
20. THE BUBBLER OUTLET ORIFICE SHALL BE LOCATED WITHIN 5" OF THE FRONT OF THE LOW DRINKING FOUNTAIN AND SHALL BE WITHIN 36" OF THE FLOOR. THE WATER STREAM FROM THE BUBBLER SHALL BE SUBSTANTIALLY PARALLEL TO THE FRONT EDGE OF THE DRINKING FOUNTAIN.
21. WALKS, SIDEWALKS AND PEDESTRIAN WAYS SHALL BE FREE OF GRATING WHENEVER POSSIBLE. FOR GRATINGS LOCATED IN THE SURFACE OF ANY OF THESE AREAS, GRID OPENINGS IN GRATINGS SHALL BE NO GREATER THAN 1/2" WIDE IN ONE DIRECTION. IF GRATINGS HAVE ELONGATED OPENINGS, THEY SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.
22. DOUBLE SET OF HANDRAILS SHALL BE PROVIDED IN THE ELEVATOR. THE RAILS SHALL BE SMOOTH AND THE INSIDE SURFACE AT LEAST 1 1/2" CLEAR OF THE WALLS AT A NOMINAL HEIGHT OF 32" ABOVE THE FINISHED FLOOR (AFF) FOR THE FIRST HANDRAIL AND 34" AFF FOR THE SECOND . MINIMUM ELEVATOR DOOR SHALL BE 48" WIDE AND MINIMUM ELEVATOR PLATFORM SIZE SHALL BE 8'-0" X 6'-2".
23. THE CENTERLINE OF THE HIGHEST OPERABLE PART OF THE ELEVATOR CALL BUTTONS OR KEYPADS SHALL BE NO HIGHER THAN 48" ABOVE THE FINISH FLOOR. CALL BUTTONS SHALL BE A MINIMUM OF 3/4" IN SIZE AND RAISED OR FLUSH. VISUAL INDICATION SHALL BE PROVIDED TO SHOW EACH CALL REGISTERED AND EXTINGUISHED. WHEN ANSWERED, OBJECTS ADJACENT TO AND BELOW HALL CALL BUTTONS SHALL NOT PROJECT MORE THAN 4" FROM THE WALL. A CLEAR FLOOR OR GROUND SPACE MIN. 30" X 48" SHALL BE PROVIDED AT CALL CONTROLS.
24. FLOOR CALL BUTTONS SHALL BE PROVIDED WITH VISUAL INDICATORS TO SHOW WHEN EACH CALL IS REGISTERED. THE VISUAL INDICATORS SHALL BE EXTINGUISHED WHEN EACH CALL IS ANSWERED.
25. EXCEPT FOR PHOTO ELECTRIC TUBE BYPASS SWITCHES, EMERGENCY CONTROL, INCLUDING THE EMERGENCY STOP AND RETURN, SHALL BE GROUPED IN OR ADJACENT TO THE BOTTOM OF THE PANEL AND SHALL BE NO LOWER THAN 2'-11" FROM THE FLOOR. FOR MULTIPLE CONTROLS ONLY, ONE SET MUST COMPLY WITH THESE HEIGHT REQUIREMENTS.
26. THE EMERGENCY TELEPHONE HANDSET SHALL BE POSITIONED NO HIGHER THAN 48" ABOVE THE FLOOR, AND THE HANDSET CORD SHALL BE A MINIMUM OF 2'-5" IN LENGTH. A CLEAR FLOOR OR GROUND SPACE MIN 30" X 48" SHALL BE PROVIDED. THE DISTANCE FROM THE EDGE OF THE TELEPHONE ENCLOSURE TO THE FACE OF THE TELEPHONE UNIT SHALL BE MAXIMUM 10" FOR PARALLEL APPROACH, MAXIMUM 20" FOR FORWARD APPROACH.
27. THE MINIMUM ILLUMINATION AT THE CAR CONTROLS, THRESHOLD, AND THE LANDING WHEN A CAR OR LANDING DOORS ARE OPEN SHALL NOT BE LESS THAN 5 FOOT-CANDLES.
28. A VISUAL AND AUDIBLE SIGNAL SHALL BE PROVIDED AT EACH HOISTWAY ENTRANCE TO INDICATE WHICH CAR IS ANSWERING A CALL AND THE CAR'S DIRECTION OF TRAVEL. WHERE IN-CAR SIGNALS ARE PROVIDED, THEY SHALL BE VISIBLE FROM THE FLOOR AREA ADJACENT TO THE HALL CALL BUTTONS.
29. THE VISUAL SIGNAL FIXTURES SHALL BE CENTERED AT 72" MINIMUM ABOVE THE FINISH FLOOR OR GROUND AND MINIMUM 2 1/2" MEASURED ALONG THE VERTICAL CENTERLINE OF THE ELEMENT. SIGNALS SHALL BE VISIBLE FROM THE FLOOR AREA ADJACENT TO THE HALL CALL BUTTON.
30. AN AUDIBLE SIGNAL SHALL SOUND ONCE FOR THE UP DIRECTION AND TWICE FOR THE DOWN DIRECTION OR SHALL HAVE VERBAL ANNUNCIATOR THAT INDICATES THE DIRECTION OF ELEVATOR CAR TRAVEL.

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	2023/6/5
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

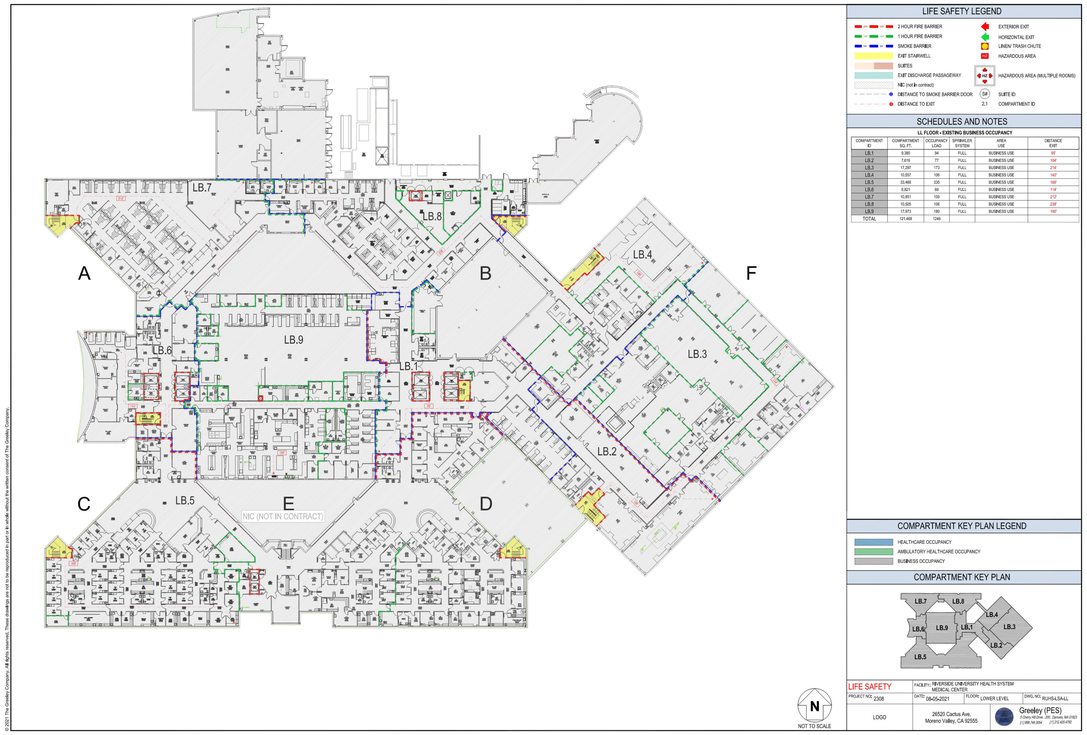
ACCESSIBILITY NOTES AND DIAGRAMS

SHEET NUMBER

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LIFE SAFETY LEGEND

2 HOUR FIRE BARRIER	EXTERIOR EXIT
1 HOUR FIRE BARRIER	HORIZONTAL EXIT
SMOKE BARRIER	LINEN TRASH CHUTE
EXIT STAIRWELL	HAZARDOUS AREA
SUITES	HAZARDOUS AREA (MULTIPLE ROOMS)
EXIT DISCHARGE PASSAGEWAY	
AREA UNDER CONSTRUCTION	
DISTANCE TO SMOKE BARRIER DOOR	SUITE ID
DISTANCE TO EXIT	COMPARTMENT ID

SCHEDULES AND NOTES

LL FLOOR - EXISTING BUSINESS OCCUPANCY

COMPARTMENT ID	COMPARTMENT SQ. FT.	OCCUPANCY LOAD	SPRINKLER SYSTEM	AREA USE	DISTANCE EXIT
LB.1	5,350	54	FULL	BUSINESS USE	85'
LB.2	7,616	77	FULL	BUSINESS USE	159'
LB.3	17,297	173	FULL	BUSINESS USE	214'
LB.4	10,557	106	FULL	BUSINESS USE	145'
LB.5	22,468	225	FULL	BUSINESS USE	169'
LB.6	6,821	69	FULL	BUSINESS USE	114'
LB.7	10,851	109	FULL	BUSINESS USE	213'
LB.8	10,935	109	FULL	BUSINESS USE	238'
LB.9	17,973	180	FULL	BUSINESS USE	145'
TOTAL	121,468	1248			

COMPARTMENT KEY PLAN LEGEND

HEALTHCARE OCCUPANCY
AMBULATORY HEALTHCARE OCCUPANCY
BUSINESS OCCUPANCY

COMPARTMENT KEY PLAN

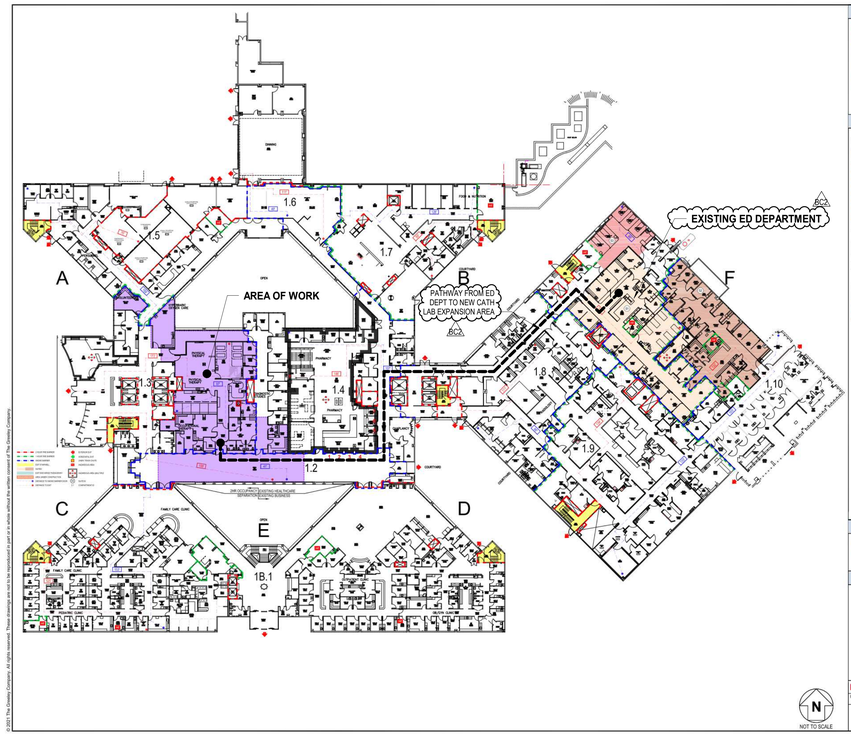
NOT TO SCALE

LIFE SAFETY	FACILITY:	RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER	
PROJECT NO: 2308	DATE: 08-05-2021	FLOOR: LOWER LEVEL	DWG. NO: RUHS-LS-SA-LL
LOGO	26520 Cactus Ave, Moreno Valley, CA 92555	Greeley (PES) 2 Cities Hill Drive , 200 , Orlando, 8H 37922 (1) 888.748.3004 (1) 212.543.4750	

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LIFE SAFETY PLAN - LEVEL LOWER

SCALE: NTS



LIFE SAFETY LEGEND

2 HOUR FIRE BARRIER	EXTERIOR EXIT
1 HOUR FIRE BARRIER	HORIZONTAL EXIT
SMOKE BARRIER	LINEN TRASH CHUTE
EXIT STAIRWELL	HAZARDOUS AREA
SUITES	HAZARDOUS AREA (MULTIPLE ROOMS)
EXIT DISCHARGE PASSAGEWAY	
AREA UNDER CONSTRUCTION	
DISTANCE TO SMOKE BARRIER DOOR	SUITE ID
DISTANCE TO EXIT	COMPARTMENT ID

SCHEDULES AND NOTES

1ST FLOOR - EXISTING HEALTHCARE OCCUPANCY

COMPARTMENT ID	COMPARTMENT SQ. FT.	OCCUPANCY LOAD	SPRINKLER SYSTEM	AREA USE	DISTANCE SMOKE	DISTANCE EXIT
1.1	6,603	36	FULL	TREATMENT	68'	135'
1.2	4,775	44	FULL	BUSINESS USE	67'	152'
1.3	12,960	129	FULL	BUSINESS USE	97'	173'
1.4	11,538	116	FULL	BUSINESS USE	120'	142'
1.5	10,409	105	FULL	BUSINESS USE	159'	76'
1.6	2,979	298	FULL	BUSINESS USE	68'	117'
1.7	8,228	83	FULL	BUSINESS USE	128'	68'
1.8	10,485	107	FULL	BUSINESS USE	68'	113'
1.9	12,863	34	FULL	TREATMENT	113'	153'
1.10	32,177	43	FULL	TREATMENT	103'	156'
TOTAL	162,411	995				

1ST FLOOR - EXISTING BUSINESS OCCUPANCY

COMPARTMENT ID	COMPARTMENT SQ. FT.	OCCUPANCY LOAD	SPRINKLER SYSTEM	AREA USE	DISTANCE EXIT
1B.1	28,847	287	FULL	BUSINESS USE	120'
TOTAL	28,847	287			

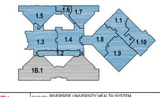
1ST FLOOR - SUITE INFORMATION

SUITE ID	SUITE SQ. FT.	SUITE TYPE	REMOTE EXIT REQUIREMENTS	DISTANCE TO EXIT ACCESS DOOR
(1)	5,763	PAT CARE NON SLEEPING	2 REMOTE EXITS	79'
(2)	3,779	PAT CARE NON SLEEPING	2 REMOTE EXITS	65'
(3)	1,170	PAT CARE NON SLEEPING	1 REMOTE EXIT	42'

COMPARTMENT KEY PLAN LEGEND

HEALTHCARE OCCUPANCY
AMBULATORY HEALTHCARE OCCUPANCY
BUSINESS OCCUPANCY

COMPARTMENT KEY PLAN



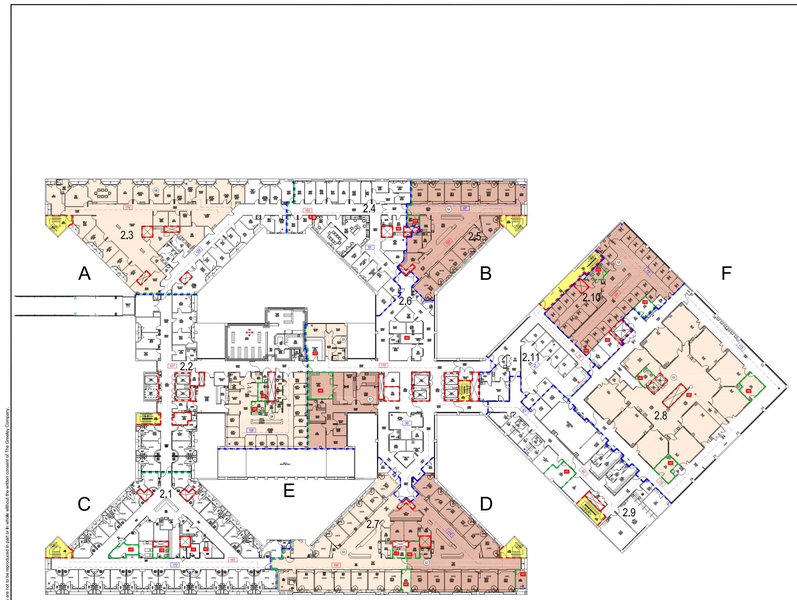
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LIFE SAFETY	FACILITY:	RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER	
PROJECT NO: 2308	DATE: 08-16-2021	FLOOR: 1ST FLOOR	DWG. NO: RUHS-LS-SA-01
LOGO	26520 Cactus Ave, Moreno Valley, CA 92555	Greeley (PES) 2 Cities Hill Drive , 200 , Orlando, 8H 37922 (1) 888.748.3004 (1) 212.543.4750	

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LIFE SAFETY PLAN - FIRST FLOOR

SCALE: NTS



LIFE SAFETY LEGEND

2 HOUR FIRE BARRIER	EXTERIOR EXIT
1 HOUR FIRE BARRIER	HORIZONTAL EXIT
SMOKE BARRIER	LINEN TRASH CHUTE
EXIT STAIRWELL	HAZARDOUS AREA
SUITES	HAZARDOUS AREA (MULTIPLE ROOMS)
EXIT DISCHARGE PASSAGEWAY	
AREA UNDER CONSTRUCTION	
DISTANCE TO SMOKE BARRIER DOOR	SUITE ID
DISTANCE TO EXIT	COMPARTMENT ID

SCHEDULES AND NOTES

2ND FLOOR - EXISTING HEALTHCARE OCCUPANCY

COMPARTMENT ID	COMPARTMENT SQ. FT.	OCCUPANCY LOAD	SPRINKLER SYSTEM	AREA USE	DISTANCE SMOKE	DISTANCE EXIT
2.1	5,954	60	FULL	PATIENT SLEEPING	172'	165'
2.2	11,766	84	FULL	TREATMENT ROOMS/NO PAT SLEEPING	158'	107'
2.3	10,065	101	FULL	BUSINESS USE	129'	174'
2.4	5,274	53	FULL	BUSINESS USE	59'	169'
2.5	4,613	41	FULL	PATIENT SLEEPING	87'	156'
2.6	10,666	107	FULL	BUSINESS USE	90'	170'
2.7	10,480	68	FULL	PATIENT SLEEPING	114'	180'
2.8	13,412	56	FULL	TREATMENT	113'	170'
2.9	8,881	28	FULL	TREATMENT	62'	94'
2.10	5,034	21	FULL	TREATMENT	72'	154'
2.11	2,947	17	FULL	TREATMENT	47'	79'
TOTAL	92,022	679				

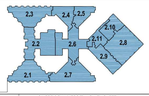
2ND FLOOR - SUITE INFORMATION

SUITE ID	SUITE SQ. FT.	SUITE TYPE	REMOTE EXIT REQUIREMENTS	DISTANCE TO EXIT ACCESS DOOR
(S1)	8,474	PAT CARE NON SLEEPING	2 REMOTE EXITS	49'
(S2)	5,651	SLEEPING	2 REMOTE EXITS	50'
(S3)	5,030	SLEEPING	2 REMOTE EXITS	63'
(S4)	4,728	SLEEPING	2 REMOTE EXITS	57'
(S5)	541	NON PAT CARE	1 REMOTE EXIT	29'
(S6)	3,032	PAT CARE NON SLEEPING	2 REMOTE EXITS	57'
(S7)	3,296	NON PAT CARE	2 REMOTE EXIT	70'
(S8)	8,854	NON PAT CARE	2 REMOTE EXITS	85'
(S9)	4,261	PAT CARE NON SLEEPING	2 REMOTE EXITS	67'

COMPARTMENT KEY PLAN LEGEND

HEALTHCARE OCCUPANCY
AMBULATORY HEALTHCARE OCCUPANCY
BUSINESS OCCUPANCY

COMPARTMENT KEY PLAN



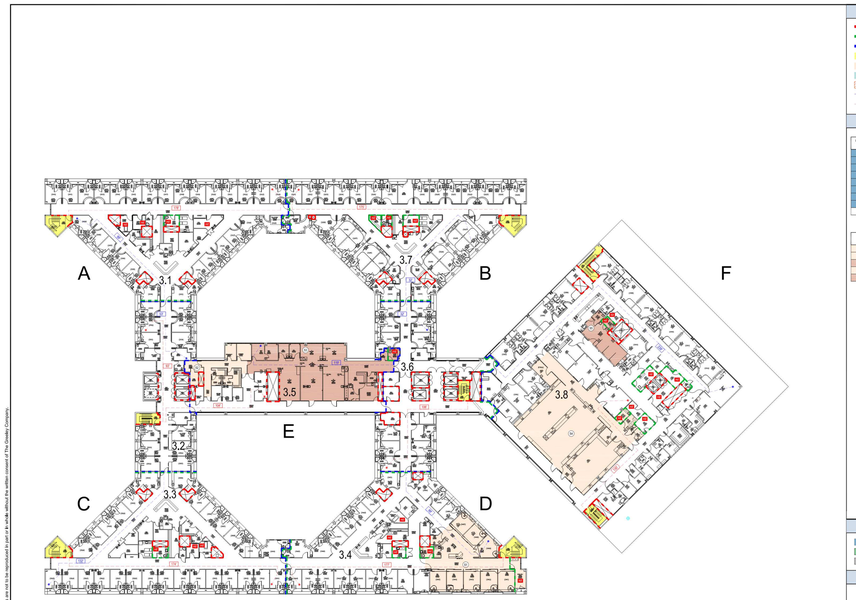
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LIFE SAFETY	FACILITY:	RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER	
PROJECT NO: 2308	DATE: 08-05-2021	FLOOR: 2ND FLOOR	DWG. NO: RUHS-LS-SA-02
LOGO	26520 Cactus Ave, Moreno Valley, CA 92555	Greeley (PES) 2 Cities Hill Drive , 200 , Orlando, 8H 37922 (1) 888.748.3004 (1) 212.543.4750	

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LIFE SAFETY PLAN - SECOND FLOOR

SCALE: NTS



LIFE SAFETY LEGEND

2 HOUR FIRE BARRIER	EXTERIOR EXIT
1 HOUR FIRE BARRIER	HORIZONTAL EXIT
SMOKE BARRIER	LINEN TRASH CHUTE
EXIT STAIRWELL	HAZARDOUS AREA
SUITES	HAZARDOUS AREA (MULTIPLE ROOMS)
EXIT DISCHARGE PASSAGEWAY	
AREA UNDER CONSTRUCTION	
DISTANCE TO SMOKE BARRIER DOOR	SUITE ID
DISTANCE TO EXIT	COMPARTMENT ID

SCHEDULES AND NOTES

3RD FLOOR - EXISTING HEALTHCARE OCCUPANCY

COMPARTMENT ID	COMPARTMENT SQ. FT.	OCCUPANCY LOAD	SPRINKLER SYSTEM	AREA USE	DISTANCE SMOKE	DISTANCE EXIT
3.1	10,188	95	FULL	PATIENT SLEEPING CARE	99'	138'
3.2	4,570	39	FULL	PATIENT SLEEPING CARE	53'	93'
3.3	10,176	95	FULL	PATIENT SLEEPING CARE	78'	74'
3.4	10,261	86	FULL	PATIENT SLEEPING CARE	99'	177'
3.5	8,774	68	FULL	BUSINESS	139'	104'
3.6	6,500	53	FULL	PATIENT SLEEPING CARE	92'	106'
3.7	10,170	85	FULL	PATIENT SLEEPING CARE	107'	175'
3.8	21,398	179	FULL	PATIENT SLEEPING CARE	209'	150'
TOTAL	76,971	680				

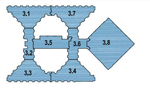
3RD FLOOR - SUITE INFORMATION

SUITE ID	SUITE SQ. FT.	SUITE TYPE	REMOTE EXIT REQUIREMENTS	DISTANCE TO EXIT ACCESS DOOR
(S1)	2,551	SLEEPING	2 REMOTE EXITS	53'
(S2)	1,047	NON PAT CARE	2 REMOTE EXITS	62'
(S3)	3,467	NON PAT CARE	2 REMOTE EXITS	65'
(S4)	4,713	SLEEPING	2 REMOTE EXITS	23'
(S5)	612	PAT NON SLEEPING CARE	2 REMOTE EXITS	57'

COMPARTMENT KEY PLAN LEGEND

HEALTHCARE OCCUPANCY
AMBULATORY HEALTHCARE OCCUPANCY
BUSINESS OCCUPANCY

COMPARTMENT KEY PLAN



NOT TO SCALE

LIFE SAFETY	FACILITY:	RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER	
PROJECT NO: 2308	DATE: 08-05-2021	FLOOR: 3RD FLOOR	DWG. NO: RUHS-LS-SA-03
LOGO	26520 Cactus Ave, Moreno Valley, CA 92555	Greeley (PES) 2 Cities Hill Drive , 200 , Orlando, 8H 37922 (1) 888.748.3004 (1) 212.543.4750	

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LIFE SAFETY PLAN - THIRD FLOOR

SCALE: NTS

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE RE QUIREMENTS OF T.24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

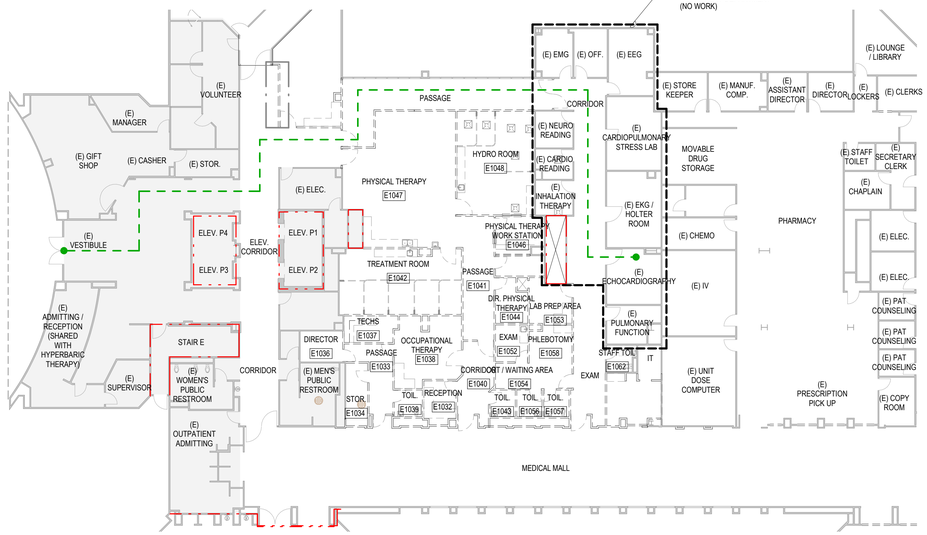
EXITING LIFE SAFETY PLANS

SHEET NUMBER

GI101

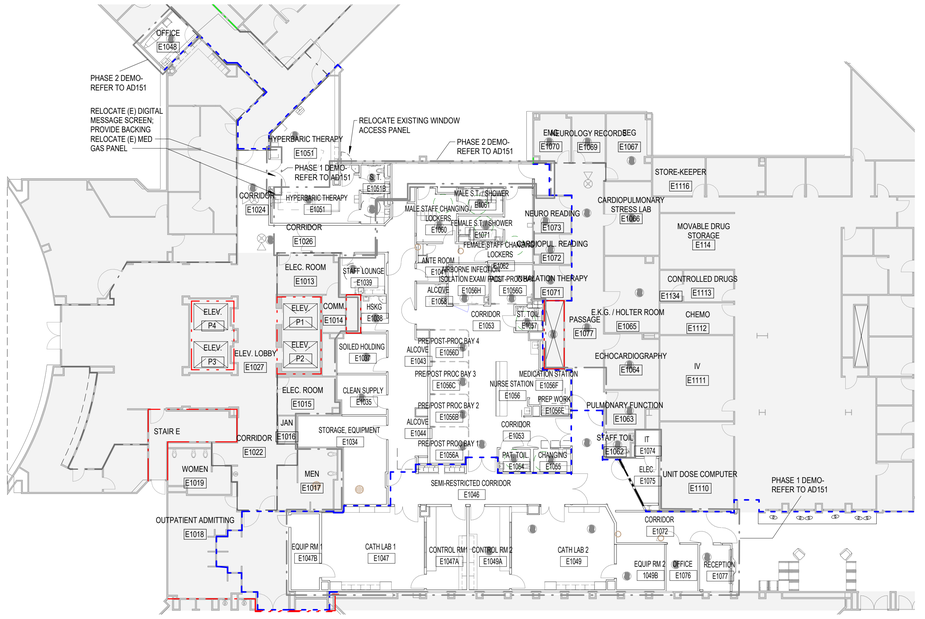
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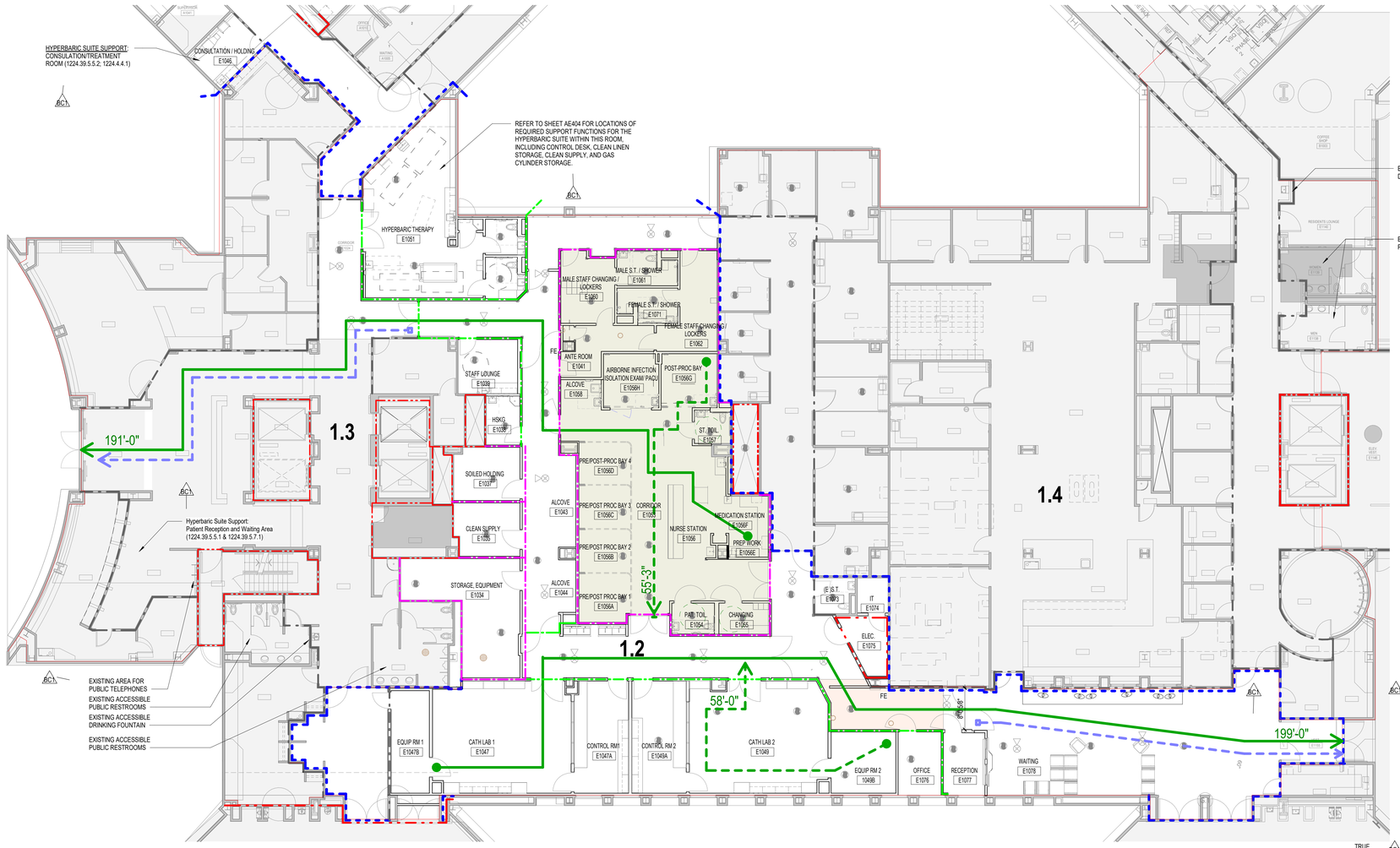
LEVEL 1 - LIFE SAFETY FLOOR PLAN (PHASE 1 EGRESS PLAN FOR EXISTING NEURO/CARDIO OUTPATIENT DEPARTMENT)

E1 SCALE: 1/16" = 1'-0"



PARTIAL FLOOR PLAN - LEVEL 1 - LIFE SAFETY FLOOR PLAN (PHASE 2 EGRESS PLAN FOR EXISTING NEURO/CARDIO DEPARTMENT)

E4 SCALE: 1/16" = 1'-0"



LEVEL 1 - LIFE SAFETY FLOOR PLAN (FOR NEW CATH LAB DEPARTMENT)

A1 SCALE: 1" = 10'-0"

LIFE SAFETY GENERAL NOTES

1. ALL FIRE RATED PARTITIONS ARE EXISTING AND WITHIN THE CORE AREA, PATCH TO MAINTAIN RATING IF DISTURBED.
2. WOOD USED FOR BLOCKING, NAILERS, OR FRAMING IN FIRE RATED ASSEMBLIES SHALL BE FIRE RETARDANT TREATED. REFER TO SPECIFICATION SECTION 06 10 53
3. FOR EXIT LIGHTS AND EMERGENCY LIGHTING, SEE ELECTRICAL.
4. FOR FIRE DETECTION SYSTEM, SEE ELECTRICAL.
5. FOR FIRE ALARM SYSTEM, SEE ELECTRICAL.
6. WHERE FIRE EXTINGUISHER CABINETS OR OTHER EQUIPMENT IS RECESSED IN FIRE RATED PARTITIONS, MODIFY THE PARTITION AS REQUIRED TO PROVIDE A CONTINUOUS ENCLOSURE TO ENSURE UNINTERRUPTED FIRE RATING.
7. AT EXISTING FIRE RATED DOOR LOCATIONS FRAMES SHALL BE NEW AND DOORS SHALL BE LABELED FOR THE INTENDED USE OR EQUIVALENT.
8. NON-RATED SMOKE PARTITIONS SHALL BE CONSTRUCTED TO LIMIT THE TRANSFER OF SMOKE. PARTITIONS SHALL EXTEND FROM FLOOR SLAB TO UNDERSIDE THE DECK ABOVE. THE SPACE ADJACENT TO THE DECK AND OTHER SURFACES AND THE SPACES AROUND PENETRATING ITEMS SHALL BE CAULKED TO LIMIT THE FREE PASSAGE OF SMOKE.
9. HYPERBARIC CHAMBERS FOR HUMAN OCCUPANCY AND THEIR SUPPORTING SYSTEMS SHALL BE DESIGNED AND FABRICATED TO MEET ANSI/ ASME PVHO-1, SAFTRY STANDARD FOR PRESSURE VESSELS FOR HUMAN OCCUPANCY, BY PERSONNEL QUALIFIED TO FABRICATEVESSELS UNDER SUCH CODES PER 2021 NFPA 99, SECTION 14.2.2.1.

BC1

CODE ANALYSIS LEGEND

REFER TO SHEET AE511 FOR DETAILS AND UL LISTINGS FOR CONSTRUCTION OF RATED PARTITIONS AND BARRIERS

- BC2, FP — 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- BC2, FB — 1 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 60 MINUTES FOR SHAFTS, EXIT STAIRWAYS AND EXIT PASSAGEWAY WALLS AND 45 FOR OTHER FIRE BARRIERS.
- FB — 2 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 90 MINUTES.
- SP — SMOKE PARTITION PER CBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- SB — 1HR SMOKE BARRIER PER CBC SECTION 709. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- EXISTING 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- TRAVEL DISTANCE
- AREA NAME 100 SF / 00 00 OCC. — ROOM (NET) AND AREA (GROSS) TAGS INDICATING SQUARE FOOTAGE / OCCUPANCY LOAD FACTOR, AND RESULTING OCCUPANCY BELOW
- 0 — INDICATES NUMBER OF OCCUPANTS EXITING ON EGRESS PATH
- 16' - 0" — ACCESSIBLE PATH OF TRAVEL TO BUILDING ENTRANCE
- PATH A 16' - 0" — EGRESS PATH WITH NAME, SEGMENT LENGTH, AND DIRECTION INDICATED
- 165 EXIT A — EXIT INDICATOR BASIC: WITH NAME OF EXIT AND TOTAL OCCUPANTS EXITING INDICATED
- 165 EXIT B; 0.2 X 165 = 33" MIN; ACTUAL = 34.25" — EXIT INDICATOR ADVANCED: WITH NAME OF EXIT, TOTAL OCCUPANTS EXITING INDICATED, SIZE OF OPENING VS ACUTAL OPENING WIDTH
- I-2 OCCUPANCY — OCCUPANCY GROUP
- BC1 — PATIENT CARE NON-SLEEPING SUITE
- EXISTING AREA TO REMAIN, AREA NOT IN SCOPE OF WORK
- 1 HOUR CEILING AREA

1ST FLOOR - EXISTING HEALTHCARE OCCUPANCY

COMPARMENT ID	COMPARTMENT SQ.FT.	OCCUPANCY LOAD	SPRINKLER SYSTEM	AREA USE	DISTANCE SMOKE	DISTANCE EXIT
1.1	8,603	36	FULL	TREATMENT	66'	105'
1.2	5,125	44	FULL	TREATMENT	86'	204'
1.3	12,538	129	FULL	TREATMENT	57'	194'
1.4	11,150	116	FULL	TREATMENT	107'	146'
1.5	10,459	105	FULL	TREATMENT	159'	76'

2022 CBC CODE APPLICATION MATRIX

Room #	Room Name	Room Function	App'l Code Ref.	SF Req'd	SF Provided
E1034	STORAGE, EQUIPMENT		1224.16.5.5		361 SF
E1035	CLEAN SUPPLY		1224.28.2.7		136 SF
E1037	SOILED HOLDING		1224.28.2.8		138 SF
E1038	HOUSEKEEPING		1224.28.2.9	15 SF	70 SF
E1039	STAFF LOUNGE				134 SF
E1040	CORRIDOR		1224.4.7		
E1041	ANTE ROOM				
E1043	ALCOVE				
E1044	ALCOVE				
E1046	CORRIDOR		1224.4.7		
E1047	CATH LAB 1		1224.28.2; 1224.28.2.1	400 SF	565 SF
E1048	EQUIP RM 1		1224.28.2.3		147 SF
E1049	CONTROL RM 1		1224.28.2.2		226 SF
E1050	CONTROL RM 2		1224.28.2.2		229 SF
E1051	CATH LAB 2		1224.28.2; 1224.28.2.1	400 SF	565 SF
E1052	EQUIP RM 2		1224.28.2.3		148 SF
E1051	HYPERBARIC THERAPY		1224.39.5; 1224.39.5.2.2		648 SF
E1051A	STAFF TOILET		1224.39.5.6		41 SF
E1051B	PATIENT TOILET / CHANGING		1224.39.5.7.2; 1224.39.5.7.3		71 SF
E1051C	HOUSEKEEPING		1224.39.5.5.7		24 SF
E1053	CORRIDOR				
E1054	PATIENT TOILET		1224.4.4.8		49 SF
E1055	CHANGING ROOM		1224.16.7.2		54 SF
E1056	NURSE STATION		1224.16.5.1;		162 SF
E1056A	PRE/POST PROC BAY 1		1224.28.2.6; 1224.16.2	80 SF	82 SF
E1056B	PRE/POST PROC BAY 2		1224.28.2.6; 1224.16.2	80 SF	83 SF
E1056C	PRE/POST PROC BAY 3		1224.28.2.6; 1224.16.2	80 SF	83 SF
E1056D	PRE/POST-PROC BAY 4		1224.28.2.6; 1224.16.2	80 SF	83 SF
E1056E	PREP WORK AREA				57 SF
E1056F	MEDICATION STATION		1224.16.5.3		63 SF
E1056G	POST-PROCEDURE BAY		1224.28.2.6; 1224.16.3		115 SF
E1056H	AIRBORN INFECTION ISOLATION EXAM/TREATMENT		1224.28.2.6; 1224.4.4.1.3		111 SF
E1057	STAFF TOILET		1224.16.6		45 SF
E1058	ALCOVE				
E1059	CORRIDOR		1224.4.7.2		
E1060	MALE STAFF CHANGING / LOCKERS		1224.28.2.5		138 SF
E1061	MALE STAFF TOILET / SHOWER				75 SF
E1062	FEMALE STAFF CHANGING / LOCKERS		1224.28.2.5		162 SF
E1071	FEMALE STAFF TOILET / SHOWER				75 SF
E1073	STAFF TOILET		1224.4.4.8		49 SF
E1074	IT ROOM		1224.5.2		41 SF
E1075	ELECTRICAL				79 SF
E1076	OFFICE		1224.21.1		98 SF
E1077	RECEPTION				98 SF
E1078	WAITING		1224.16.7.1; 1224.4.5		
A1048	HYPERBARIC PATIENT COUNSELING		1224.39.5.5.2; 1224.4.4.1	80 SF	
E1080	(E) PATIENT ADVOCACY				
E1107	HOLDING - GURNEY				

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

LIFE SAFETY PLAN

SHEET NUMBER

GI102

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WELDING (05 12 13)

1. WELDING CONTRACTOR SHALL PROTECT ALL EXISTING BUILDING ELEMENTS AGAINST FIRE OR DAMAGE AND SHALL PROVIDE A FULL-TIME FIRE WATCH EQUIPPED WITH FIRE EXTINGUISHER DURING ALL CUTTING AND WELDING OPERATIONS. IN ADDITION, WELDING TECHNIQUES SHALL BE USED TO MINIMIZE POTENTIAL FIRE DAMAGE.
2. WELDING SHALL BE DONE BY QUALIFIED WELDERS WITH CURRENT CERTIFICATION BY AWS, AND THE ENFORCEMENT AGENCY FOR STRUCTURAL STEEL.
3. UNLESS NOTED OTHERWISE, ALL WELDS SHALL USE PRE-QUALIFIED SHIELDED METAL ARC (SMAW) WELDING TECHNIQUE PER WELDING NOTE 6. ALL SMAW ELECTRODES SHALL BE LOW HYDROGEN TYPE AND SHALL BE SUBJECT TO THE REQUIREMENTS OF SECTION 4.5 OF AWS D1.1. FOR SMAW, THE MAXIMUM PERMITTED ELECTRODE DIAMETER SHALL BE PER WELDING NOTE 5, REFERENCE SECTION 4.6.3(4) OF AWS D1.1.
4. FILLER METAL SHALL HAVE A NOTCH TOUGHNESS OF 40 FT-LBS AVERAGE AT 70 DEG F AND MINIMUM 20 FT-LBS AT 0 DEG F UNLESS NOTED OTHERWISE.
5. SUMMARY OF TYPICAL REQUIREMENTS FOR PRE-QUALIFIED SMAW WELDS:

VARIABLE	POSITION	WELD TYPE	SIZE	AWS CODE PARAGRAPH
MAXIMUM ELECTRODE DIAMETER	FLAT	ALL EXCEPT ROOT PASSES	5/16"	4.6.3(1)
	HORIZONTAL	FILLETS	1/4"	4.6.3(2)
		GROOVE	3/16"	4.6.3(5)
	VERTICAL	ALL	5/32"	4.6.3(5)
	OVERHEAD			4.6.3(4)
MAXIMUM ROOT PASS THICKNESS	ALL	GROOVE	1/4"	4.6.5
MAXIMUM SINGLE PASS FILLET AND MAXIMUM WELD ROOT PASS THICKNESS	FLAT	--	3/8"	4.6.6(1)
	HORIZONTAL	--	5/16"	4.6.6(2)
	VERTICAL	--	1/2"	4.6.6(3)
	OVERHEAD	--	5/16"	4.6.6(2)
MAXIMUM LAYER THICKNESS	FLAT	ALL	1/8"	4.6.7(1)
	HORIZONTAL		3/16"	4.6.7(2)
	VERTICAL		3/16"	
	OVERHEAD		3/16"	

6. BACKUP BARS SHALL BE REMOVED UNLESS NOTED OTHERWISE. REMOVAL OF BACKUP BAR AND DAMAGED MATERIAL CAN BE DONE BY GRINDING OR AIR ARC GOUGING. AREAS BACKGOUGED BY AIR ARC TO BE CLEANED UP BY GRINDING. SURFACES ON WHICH WELD METAL WILL BE DEPOSITED SHALL BE SMOOTH, UNIFORM, AND FREE FROM FINS, TEARS, FRACTURES, AND OTHER DISCONTINUITIES WHICH WOULD ADVERSELY AFFECT THE QUALITY OR STRENGTH OF THE WELD, PER AWS D1.1, SECTION 3.2.1.
7. INDIVIDUAL WELDS SHALL BE CARRIED CONTINUOUSLY TO COMPLETION BEFORE JOINT IS ALLOWED TO COOL BELOW THE MINIMUM SPECIFIED PREHEAT AND INTERPASS TEMPERATURE.
8. BEAM WELDING SEQUENCE: WHEN WELDING IS REQUIRED AT BOTH ENDS OF A BEAM, ONE END SHALL BE ALLOWED TO COOL BEFORE WELDING BEGINS AT THE OPPOSITE END.
9. PREHEATING IS REQUIRED ON ALL TACK WELDS NOT INCORPORATED INTO FINAL WELDS. SEE AWS D1.1, SECTION 3.3.7.
10. 100% ULTRASONIC WELD TESTING BY AN ASNT LEVEL I1 INSPECTOR, SUPERVISED BY A LEVEL III INSPECTOR, IS REQUIRED FOR ALL COMPLETE JOINT PENETRATION WELDS.
12. ALL SURFACES SHALL BE CLEANED FREE OF RUST, PAINT, DEBRIS, ETC., PRIOR TO WELDING. ADHERE TO SECTION 4.5.2 OF AWS D1.4 FOR STORAGE OF ELECTRODES.
13. FCAW PROCESS SHALL NOT BE USED WITHOUT PRIOR WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER.
14. ALL WELDS SHALL BE TERMINATED AT THE END OF A JOINT IN A MANNER THAT WILL ENSURE SOUND WELDS. WHENEVER NECESSARY, THIS SHALL BE DONE BY USE OF EXTENSION BARS AND RUN-OFF TABS. NO WELD DAMS ARE ALLOWED. RUN OFF TABS USED AT BEAM FLANGE CONNECTION SHALL BE REMOVED AND THE ENDS OF THE WELD SHALL BE MADE SMOOTH AND FLUSH WITH THE EDGES OF ABUTTING PARTS PER 3.12.3 OF AWS D1.1.
15. ALL REPAIR WELDS TO BE COMPLETE JOINT PENETRATION WELDS UNLESS SPECIFICALLY NOTED OTHERWISE.
    A. A COMPLETE JOINT PENETRATION GROOVE WELD SHALL HAVE A FILLER METAL WITH A NOTCH TOUGHNESS OF 30 FT-LBS AVERAGE (MINIMUM 20 FT-LBS AT 0 DEG F).
    B. COLUMN FLANGE REPLACEMENT PLATES AND BEAM FLANGE SPLICE PLATES SHALL HAVE A NOTCH TOUGHNESS OF 20 FT-LBS AVERAGE AT 70 DEG F. ALSO, ROLLING DIRECTION OF GRAIN SHALL BE INDICATED ON THE PLATE AND INSTALLED SO THAT GRAIN DIRECTION IS PARALLEL TO LONGITUDINAL AXIS OF THE MEMBER.
16. DEMAND CRITICAL COMPLETE JOINT PENETRATION GROVE WELDS IDENTIFIED BY AISC SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS SECTION A3.4B SHALL CONFORM TO AND BE TESTED PER REQUIREMENTS OF FEMA 353:
    A. WELD OF BEAM FLANGES TO COLUMNS
    B. WELDS OF SINGLE PLATE SHEAR CONNECTIONS TO COLUMNS
    C. WELDS OF BEAM WEBS TO COLUMNS
    D. COLUMN SPLICE WELDS, INCLUDING COLUMN BASE.
17. REQUIREMENTS REGARDING PREHEAT
    A. PREHEAT THE ENTIRE JOINT TO A MINIMUM OF 225 DEG F BEFORE PERFORMING. PREHEAT TEMPERATURE SHALL BE MEASURED AT A DISTANCE OF 3 INCHES IN ALL DIRECTIONS AWAY FROM THE JOINT, AND SHALL EXTEND THROUGH THE COLUMN FLANGE THICKNESS OVER THAT SAME AREA. PREHEAT SHALL BE VERIFIED BY AN INSPECTOR BEFORE WELDING PROCEEDS.
    B. ALL PREHEATING SHALL BE DONE UNIFORMLY, WHERE POSSIBLE, PROVIDE HEATING FROM THE BACK SIDE (ROOT SIDE) OF THE MEMBER. MEMBERS SHOULD ALWAYS BE BROUGHT TO TEMPERATURE SLOWLY.
    C. FOR GROUP 4 AND 5 SHAPES, PREHEAT TO 225 DEG F PRIOR TO THERMAL CUTTING OF ACCESS HOLES. FOR ALL THERMAL CUTTING OF ACCESS HOLES, INSPECT THERMALLY-CUT EDGES USING MAGNETIC PARTICLE OR DYE PENETRATION METHODS.
    D. MAXIMUM INTERPASS TEMPERATURE 450 DEG F TO BE MONITORED ON COLUMN FLANGE MAINTAIN PREHEAT TEMPERATURE WHEN WELDING IS INTERRUPTED.
17. REQUIREMENTS REGARDING POST-HEATING:
    A. START POST HEAT IMMEDIATELY AFTER ALL FRAME JOINT WELDING IS AT PREHEAT TEMPERATURE OF 225 DEG F.
    B. AFTER ALL WELDING, PROVIDE A FULL FIBER WRAP WITH AN 8 POUND DENSITY OR EQUAL. ALLOW MEMBER TO RAMP DOWN TO AMBIENT TEMPERATURE IN NO LESS THAN 6 HOURS FOR FLANGE THICKNESS GREATER THAN 2 INCHES. WRAP MAY BE REMOVED WHEN MATERIAL HAS REACHED AMBIENT TEMPERATURE.
18. SPECIAL INSPECTION AND TESTING:
    A. THE OWNER'S STEEL TESTING AGENCY SHALL PROVIDE CONTINUOUS INSPECTION OF THE WELDING SUBCONTRACTOR AND PERFORM THE INDICATED SHOP AND FIELD INSPECTION AND TESTING.
    B. INSPECTORS ARE TO BE AWS Q.C.-1 CERTIFIED (A CWI-INSPECTOR) REFERENCE AWS D1.1 SECTION 6.1.3.1. INSPECTORS TO BE LICENSED BY THE LOS ANGELES DEPARTMENT OF BUILDING AND SAFETY AS DEPUTY BUILDING INSPECTORS FOR STRUCTURAL STEEL AND WELDING (SSW).
    C. 100% OF ALL DEMAND CRITICAL COMPLETE JOINT PENETRATION WELDS ARE TO BE ULTRASONICALLY TESTED.
    D. AFTER REMOVAL OF BACKUP BARS AND BACKGOUGING OF CRACKED WELDS, REMAINING WELD MATERIAL TO BE TESTED BY MAGNETIC PARTICLE TO ENSURE ALL SOUND WELD MATERIAL.
    E. AMPERAGE, VOLTAGE, POLARITY AND ELECTRODE STICK_OUT SHALL BE VERIFIED TO BE IN COMPLIANCE WITH THE ELECTRODE MANUFACTURER'S RECOMMENDATIONS.
    F. INSPECTION REQUIRED DURING THE PLACEMENT OF FIRE-PROOFING.
    G. ULTRASONIC INSPECTION SHALL BE PERFORMED NO SOONER THAN 48 HOURS AFTER COMPLETION OF WELDMENTS. COLUMN FLANGES SHALL BE ULTRASONICALLY INSPECTED ON BOTH SIDES OF THE SPECIFIED LOCATION OF THE GROOVE WELD FOR A DISTANCE OF 8 INCHES.
    H. A MAXIMUM OF 10% OF NEW COMPLETE JOINT PENETRATION GROOVE WELDS TO BE MACRO-ETCHED. LOCATIONS, IF REQUIRED, TO BE DETERMINED BY THE ENGINEER.
    I. FOLLOWING THE COMPLETION OF THE WELDING, THE WELDED JOINTS SHALL BE INSPECTED BY AN APPROVED ULTRASONIC TESTING PROCEDURE, CONSISTENT WITH APPENDIX S OF AWS D1.1. THE ACCEPTANCE CRITERIA SHALL FOLLOW AWS D1.1, SECTION 6.20 AND TABLE 6.3. PRIOR TO THE SHEAR WAVE TESTING OF THE WELD, THE BASE METAL SHALL BE INSPECTED FOR LAMELLAR DISCONTINUITIES IN ACCORDANCE WITH AWS D1.1. ALL SHOP OR FIELD WELDS AND THE COLUMN FLANGES DIRECTLY BEHIND SUCH WELDS SHALL BE PERFORMED NO SOONER THAN 48 HOURS AFTER THE COMPLETION OF THE WELDING.

EXECUTION AND CLOSEOUT REQUIREMENTS (01 70 00)

1. CONTRACTOR SHALL MAINTAIN RECORD DOCUMENTS (E.G., DRAWINGS, ADDENDA, CHANGE ORDERS, REVIEWED SHOP DRAWINGS, FIELD TEST RECORDS, ETC.) AT THE SITE AS DIRECTED BY THE OWNER. THE CONTRACTOR SHALL MAINTAIN AN ACCURATE RECORD OF CHANGES IN THE CONTRACT DOCUMENTS, AND SHALL TRANSFER THE RECORDED CHANGES TO A SET OF REPRODUCIBLE RECORD DOCUMENTS UPON COMPLETION OF THE WORK.
2. UNLESS NOTED OTHERWISE, EXPOSED NEW CONCRETE, STEEL, ETC., SHALL BE FINISHED TO MATCH EXISTING BUILDING FINISHES. PLYWOOD SHEAR WALLS SHALL BE COVERED WITH 5/8 INCH THICK DRYWALL AND BE TAPED AND PAINTED. ITEMS REMOVED TO INSTALL THE NEW WORK SHALL BE RESTORED TO THEIR ORIGINAL CONDITION (INCLUDING FIRE-RATING, IF APPLICABLE). WHERE SURFACES ARE TO BE PAINTED, NEW FLOOR COVERINGS ARE REQUIRED, ETC., THE CONTRACTOR SHALL SUBMIT ACCURATE COLOR OR PATTERN SAMPLES TO THE OWNER FOR APPROVAL.
3. CONTRACTOR SHALL PERFORM PERIODIC AND FINAL CLEANING OF WORK AREAS. OCCUPIED AREAS SHALL BE KEPT IN A CONDITION SUITABLE FOR USE BY THE OWNER. UNOCCUPIED AREAS SHALL BE CLEANED DURING THE CONSTRUCTION TO KEEP WORK AREAS FREE FROM ACCUMULATIONS OF WASTE MATERIALS AND RUBBISH. CONTRACTOR SHALL CLEAN SPILLAGE, OVER-SPRAY, HEAVY COLLECTION OF DUST IN OCCUPIED AREAS, AND THOSE ITEMS WHICH MAY PRESENT A HAZARD IMMEDIATELY. FINAL CLEANING SHALL BE PERFORMED AT THE COMPLETION OF THE WORK RETURN AREAS TO A CONDITION SUITABLE FOR USE BY THE OWNER. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES, ORDINANCES, REGULATIONS AND ANTI-POLLUTION LAWS. CONTRACTOR SHALL USE APPROPRIATE CLEANING MATERIALS. CONTRACTOR SHALL PROVIDE ON-SITE CONTAINERS FOR COLLECTION OF WASTE MATERIALS AND SHALL REMOVE WASTE MATERIALS FROM THE SITE PERIODICALLY AND DISPOSE OF AT LEGAL DISPOSAL AREAS AWAY FROM THE SITE.
4. REMOVAL AND DISPOSAL OF ANY HAZARDOUS MATERIAL (ASBESTOS, LEAD PAINTS, FLUORESCENT LIGHT BALLASTS, ETC.) SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

EXISTING CONDITIONS (DIVISION 02)

1. THE INFORMATION AND DETAILS FOR THE EXISTING STRUCTURE SHOWN ON THE STRUCTURAL DOCUMENTS ARE BASED ON INFORMATION OBTAINED FROM THE EXISTING DRAWINGS. THE STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR ACTUAL FIELD CONDITIONS WHICH DEVIATE FROM THE EXISTING CONDITIONS SHOWN ON THE EXISTING DRAWINGS. EXCEPT WHERE MODIFIED FOR RETROFIT DESIGN PURPOSES, AS SHOWN HEREIN, THE STRUCTURAL ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR THE ADEQUACY OF THE EXISTING STRUCTURE TO SUPPORT THE CODE DESIGN LOADS.
2. NUMBER AND SIZES OF EXISTING ITEMS (E.G., CONDUIT, PIPES, HVAC DUCTS, ETC.), SHOWN ON THE DRAWINGS ARE FOR IDENTIFICATION PURPOSES ONLY. EXISTING ITEMS NOTED MAY NOT REPRESENT ALL ITEMS INTERFERING WITH NEW WORK NOR ALL ITEMS WHICH MAY NEED TO BE REMOVED TO ACCESS WORK AREAS. CONTRACTOR SHALL FIELD VERIFY INTERFERING ITEMS AND SIZES.
3. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ADEQUACY OR CONDITION OF THE EXISTING STRUCTURE TO ADHERE TO CODE DESIGN LEVELS.
4. THE CONTRACTOR SHALL REMOVE AND REPLACE SUSPENDED CEILING T-GRID, CEILING TILES, LIGHT FIXTURES, PARTITION WALLS, DRYWALL CEILINGS, FLOOR COVERINGS AND BASES, CERAMIC TILE, CONCRETE FLATWORK, PLANTS, ELECTRICAL OR MECHANICAL EQUIPMENT, CONDUIT SUPPORTS, UNISTRUT SUPPORTS, HVAC SUPPORTS, THERMOSTATS, WALL COVERINGS, RAILING, FENCING AND FINISHES, ETC., AS REQUIRED TO ACCESS THE WORK AREAS SHOWN ON THE PLANS. THE EXTENT OF REMOVAL REQUIRED SHALL BE DETERMINED BY THE CONTRACTOR DURING THE PRE-BID WALKTHROUGH. WHERE NONSTRUCTURAL ITEMS ARE REMOVED TO INSTALL RETROFITS, THESE ITEMS SHALL BE RESTORED. REPLACEMENT SHALL BE MADE WITH MATERIALS OF EQUAL OR HIGHER QUALITY AND FINISHES SHALL MATCH THOSE EXISTING ON REMOVED ITEMS. FLOORS, CEILINGS AND WALLS SHALL BE REWORKED AS REQUIRED TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. ALL COSTS FOR REMOVING AND REPLACING EXISTING ITEMS IN ORDER TO INSTALL RETROFITS SHALL BE INCLUDED IN THE FIXED PRICE TO PERFORM ALL WORK.
5. CONTRACTOR SHALL INVESTIGATE THE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FIELD EXCAVATIONS OR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER SHOWN HEREON OR NOT AND PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES, EXISTING FOOTINGS, ETC., IN AREAS WHERE NEW FOUNDATIONS (IF ANY) ARE TO BE CONSTRUCTED PRIOR TO BEGINNING ANY EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING, AS NECESSARY, ANY AND ALL UTILITIES THAT MAY INTERFERE WITH THE INSTALLATION OF THE DETAILS AS SHOWN. THE EXTENT OF RELOCATION (NECESSARY BOTH TO ACCESS AREAS REQUIRING RETROFIT AND TO INSTALL RETROFITS) OF UTILITIES WHICH ARE VISIBLE (INCLUDING THOSE ABOVE CEILINGS) OR WHICH ARE ACCURATELY SHOWN ON THE ORIGINAL ARCH., MECH., ELECT., ETC., DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR DURING THE PRE-BID WALKTHROUGH. THE COST OF ANY AND ALL SUCH RELOCATIONS SHALL BE INCLUDED IN THE FIXED PRICE COST TO PERFORM THE WORK. COSTS TO RELOCATE UTILITIES WHICH ARE NOT VISIBLE OR ARE NOT ACCURATELY SHOWN IN THE ORIGINAL ARCH., MECH., ELECT., ETC., DRAWINGS WILL BE TREATED AS EXTRAS. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES DAMAGED IN CONNECTION WITH THE PROSECUTION OF THIS WORK.
7. CONTRACTOR SHALL PROTECT EXISTING FINISHES, EQUIPMENT, AND ADJACENT WORK WHICH IS TO REMAIN IN PLACE, AS WELL AS ITEMS WHICH ARE TO BE REMOVED AND REINSTALLED, FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF EXISTING STRUCTURAL AND NONSTRUCTURAL ITEMS DAMAGED IN CONNECTION WITH THIS WORK.
8. NUMBER AND SIZES OF EXISTING ITEMS (E.G., CONDUIT, PIPES, HVAC DUCTS, ETC.), SHOWN ON THE DRAWINGS ARE FOR IDENTIFICATION PURPOSES ONLY. EXISTING ITEMS NOTED MAY NOT REPRESENT ALL ITEMS INTERFERING WITH NEW WORK NOR ALL ITEMS WHICH MAY NEED TO BE REMOVED TO ACCESS WORK AREAS. CONTRACTOR SHALL FIELD VERIFY
9. ALL EXITS MUST REMAIN OPERATIONAL DURING CONSTRUCTION.
10. REBAR SHALL NOT BE CUT DURING INSTALLATION OF RETROFITS UNLESS APPROVED BY THE ENGINEER. USE NONDESTRUCTIVE METHODS TO LOCATE REBAR PRIOR TO DRILLING.

METALS (DIVISION 05)
STRUCTURAL STEEL (05120)

1. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS
2. STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A 500, GRADE B, FY = 46 KSI. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A 53, TYPE E, GRADE B. STRUCTURAL STEEL FOR COLUMNS SHALL CONFORM TO ASTM A 572 GRADE 50. STRUCTURAL STEEL PLATE AND ANGLES SHALL CONFORM TO A36.
3. ALL OTHER HOT-ROLLED STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 OR ASTM A572 GRADE 50. STEEL SHALL CONFORM TO ASTM A992 UNLESS OTHERWISE NOTED ON DRAWINGS.
4. MACHINE BOLTS AND ANCHOR BOLTS SHALL BE GRADE B CONFORMING TO ASTM A 307 AND ANCHOR BOLTS SHALL BE ASTM F1554 GR 36, UNLESS OTHERWISE NOTED.
5. NUTS FOR MACHINE BOLTS SHALL CONFORM TO ASTM A 563, HEAVY HEX GRADE C.
6. HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM A 325.
7. THREADED FASTENERS SHALL BE ASTM A449 U.N.O. WHERE HIGH STRENGTH THREADED ROD IS SPECIFIED, MATERIAL SHALL CONFORM TO ASTM A992.
8. NUTS FOR HIGH-STRENGTH BOLTS SHALL BE HEAVY HEX, GRADE C, CONFORMING TO ASTM A 563.
9. HARDENED STEEL WASHERS SHALL CONFORM TO ASTM F436. ALL BOLTED ASSEMBLIES SHALL CONSIST OF ONE BOLT, ONE NUT AND ONE HARDENED WASHER - H.S. BOLTED ASSEMBLIES SHALL ALSO INCLUDE A DIRECT TENSION INDICATING WASHER.
10. SHOP DRAWINGS FOR STRUCTURAL AND MISCELLANEOUS STEEL SHALL BE SUBMITTED FOR REVIEW AND RETURNED WITH AUTHORIZATION TO PROCEED PRIOR TO FABRICATION.
11. NON-SHRINK GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 24 HOURS AND 8000 PSI IN 7 DAYS PER ASTM C1107, MASTER BUILDERS SET GROUT. GROUTING OF BASE PLATES PRIOR TO ALIGNMENT OF COLUMNS SHALL NOT BE PERMITTED.
12. ALL FIELD WELDING SHALL BE DONE BY THE SHIELDED METAL ARC PROCESS USING E7018 ELECTRODES PER AWS SPECIFICATION A5.1 (LOW HYDROGEN ELECTRODES). WELDING SHALL CONFORM TO THE LATEST EDITION OF AWS D1.1 AND SHALL BE PERFORMED BY CERTIFIED WELDERS QUALIFIED UNDER THE PROCEDURES CONTAINED THEREIN. MAXIMUM ELECTRODE SIZE SHALL BE 5/64-INCH DIAMETER.
13. WELDS IDENTIFIED AS REQUIRING CONTINUOUS OR PERIODIC SPECIAL INSPECTION SHALL BE MADE BY A QUALIFIED WELDING INSPECTOR APPROVED BY THE ENFORCEMENT AGENCY AND MEET THE REQUIREMENTS OF CBC 1704A.3.1
14. BOLT HOLES IN STEEL SHALL BE DRILLED 1/16-INCH LARGER DIAMETER THAN NOMINAL SIZE OF BOLT USED, EXCEPT AS NOTED OTHERWISE.
15. ALL STRUCTURAL STEEL SURFACES THAT ARE ENCASED IN CONCRETE OR MASONRY, OR ARE ENCASED BY FIREPROOFING MATERIALS, SHALL BE LEFT UNPAINTED.
16. ALL STEEL EXPOSED TO WEATHER OR MOISTURE CONDITIONS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION. AREAS THAT HAVE BEEN FIELD WELDED SHALL BE COATED WITH "REGALV," "GALVALLOY," OR AN APPROVED EQUIVALENT.
17. ALL STRUCTURAL STEEL SHALL BE PAINTED UNLESS NOTED OTHERWISE. STRUCTURAL STEEL SHALL BE PAINTED WITH DUNN-EDWARDS CORPORATION OR FRAZEE PRODUCTS OR EQUIVALENT PRODUCTS AS APPROVED BY THE ENGINEER OF RECORD. SURFACE PREPARATION PRIOR TO PRIMER AND OTHER COATS SHALL BE PER PAINT MANUFACTURER REQUIREMENTS AND RECOMMENDATIONS. PAINT COLOR SHALL BE AS DIRECTED BY OWNER.

INTERIOR/EXTERIOR STEEL	DUNN-EDWARDS	FRAZEE
FIRST COAT	CORROBAR (43-5)	661
SECOND COAT	W901	124
THIRD COAT	W901	124

GENERAL (CONTINUED)

17. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER SHOWN HEREON OR NOT AND PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES, EXISTING FOOTINGS, ETC., IN AREAS WHERE NEW FOUNDATIONS (IF ANY) ARE TO BE CONSTRUCTED PRIOR TO BEGINNING ANY EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING, AS NECESSARY, ANY AND ALL UTILITIES THAT MAY INTERFERE WITH THE INSTALLATION OF THE DETAILS AS SHOWN. THE EXTENT OF RELOCATION (NECESSARY BOTH TO ACCESS AREAS REQUIRING RETROFIT AND TO INSTALL RETROFITS) OF UTILITIES WHICH ARE VISIBLE (INCLUDING THOSE ABOVE CEILINGS) OR WHICH ARE ACCURATELY SHOWN ON THE ORIGINAL ARCH., MECH., ELECT., ETC., DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR DURING THE PRE-BID WALKTHROUGH. THE COST OF ANY AND ALL SUCH RELOCATIONS SHALL BE INCLUDED IN THE FIXED PRICE COST TO PERFORM THE WORK. COSTS TO RELOCATE UTILITIES WHICH ARE NOT VISIBLE OR ARE NOT ACCURATELY SHOWN IN THE ORIGINAL ARCH., MECH., ELECT., ETC., DRAWINGS WILL BE TREATED AS EXTRAS. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES DAMAGED IN CONNECTION WITH THE PROSECUTION OF THIS WORK.
18. THE CONTRACTOR SHALL REMOVE AND REPLACE SUSPENDED CEILING T- GRID, CEILING TILES, LIGHT FIXTURES, PARTITION WALLS, DRYWALL CEILINGS, FLOOR COVERINGS AND BASES, CERAMIC TILE, CONCRETE FLATWORK, PLANTS, ELECTRICAL OR MECHANICAL EQUIPMENT, CONDUIT SUPPORTS, UNISTRUT SUPPORTS, HVAC SUPPORTS, THERMOSTATS, WALL COVERINGS AND FINISHES ETC., AS REQUIRED TO ACCESS THE WORK AREAS SHOWN ON THE PLANS. THE EXTENT OF REMOVAL REQUIRED SHALL BE DETERMINED BY THE CONTRACTOR DURING THE PRE-BID WALKTHROUGH. WHERE NONSTRUCTURAL ITEMS ARE REMOVED TO INSTALL RETROFITS, THESE ITEMS SHALL BE RESTORED. REPLACEMENT SHALL BE MADE WITH MATERIALS OF EQUAL OR HIGHER QUALITY AND FINISHES SHALL MATCH THOSE EXISTING ON REMOVED ITEMS. FLOORS, CEILINGS AND WALLS SHALL BE REWORKED AS REQUIRED TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. ALL COSTS FOR REMOVING AND REPLACING EXISTING ITEMS IN ORDER TO INSTALL RETROFITS SHALL BE INCLUDED IN THE FIXED PRICE TO PERFORM ALL WORK.
19. THE INFORMATION AND DETAILS FOR THE EXISTING STRUCTURE SHOWN ON THE STRUCTURAL DOCUMENTS ARE BASED ON INFORMATION OBTAINED FROM THE EXISTING DRAWINGS. THE STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR ACTUAL FIELD CONDITIONS WHICH DEVIATE FROM THE EXISTING CONDITIONS SHOWN ON THE EXISTING DRAWINGS. EXCEPT WHERE MODIFIED FOR RETROFIT DESIGN PURPOSES, AS SHOWN HEREIN, THE STRUCTURAL ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR THE ADEQUACY OF THE EXISTING STRUCTURE TO SUPPORT THE CODE DESIGN LOADS.
20. CONTRACTOR SHALL PROTECT EXISTING FINISHES, EQUIPMENT, AND ADJACENT WORK WHICH IS TO REMAIN IN PLACE, AS WELL AS ITEMS WHICH ARE TO BE REMOVED AND REINSTALLED, FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF EXISTING STRUCTURAL AND NONSTRUCTURAL ITEMS DAMAGED IN CONNECTION WITH THIS WORK.
21. NUMBER AND SIZES OF EXISTING ITEMS (E.G., CONDUIT, PIPES, HVAC DUCTS, ETC.), SHOWN ON THE DRAWINGS ARE FOR IDENTIFICATION PURPOSES ONLY. EXISTING ITEMS NOTED MAY NOT REPRESENT ALL ITEMS INTERFERING WITH NEW WORK NOR ALL ITEMS WHICH MAY NEED TO BE REMOVED TO ACCESS WORK AREAS. CONTRACTOR SHALL FIELD VERIFY INTERFERING ITEMS AND SIZES.
22. THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT FOR ITEMS SUCH AS ELECTRICAL PANELS, SUSPENDED CEILINGS, PIPES, ETC. WHICH ARE DETACHED FROM THE EXISTING STRUCTURE BUT REMAIN IN PLACE DURING INSTALLATION OF RETROFITS. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF THESE ITEMS IF THEY ARE DAMAGED DURING RETROFIT INSTALLATION.
23. THE CONTRACTOR SHALL SUPPLY AND ERECT ALL TEMPORARY SCAFFOLDING, LADDERS, MAN-LIFTS, ETC., AS REQUIRED TO ACCESS ALL WORK AREAS SHOWN ON THE PLANS. ALL SCAFFOLDING REQUIREMENTS ARE TO BE DETERMINED BY THE CONTRACTOR DURING THE PRE-BID WALKTHROUGH, AND THE COST FOR PROVIDING THESE ITEMS SHALL BE INCLUDED IN THE FIXED PRICE TO PERFORM ALL WORK.
24. UNLESS NOTED OTHERWISE, EXPOSED NEW CONCRETE, STEEL, ETC. SHALL BE FINISHED TO MATCH EXISTING BUILDING FINISHES. PLYWOOD SHEAR WALLS SHALL BE COVERED WITH 5/8" THICK DRYWALL, AND BE TAPED AND PAINTED. ITEMS REMOVED TO INSTALL THE NEW WORK SHALL BE RESTORED TO THEIR ORIGINAL CONDITION (INCLUDING FIRE-RATING, IF APPLICABLE). WHERE SURFACES ARE TO BE PAINTED, NEW FLOOR COVERINGS ARE REQUIRED, ETC., THE CONTRACTOR SHALL SUBMIT ACCURATE COLOR OR PATTERN SAMPLES TO THE OWNER FOR APPROVAL.
25. CONTRACTOR SHALL PERFORM PERIODIC AND FINAL CLEANING OF WORK AREAS. OCCUPIED AREAS SHALL BE KEPT IN A CONDITION SUITABLE FOR USE BY THE OWNER. UNOCCUPIED AREAS SHALL BE CLEANED DURING THE CONSTRUCTION TO KEEP WORK AREAS FREE FROM ACCUMULATIONS OF WASTE MATERIALS AND RUBBISH. CONTRACTOR SHALL CLEAN SPILLAGE, OVERSPRAY, HEAVY COLLECTION OF DUST IN OCCUPIED AREAS, AND THOSE ITEMS WHICH MAY PRESENT A HAZARD IMMEDIATELY. FINAL CLEANING SHALL BE PERFORMED AT THE COMPLETION OF THE WORK TO RETURN AREAS TO A CONDITION SUITABLE FOR USE BY THE OWNER. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES, ORDINANCES, REGULATIONS AND ANTI-POLLUTION LAWS. CONTRACTOR SHALL USE APPROPRIATE CLEANING MATERIALS. CONTRACTOR SHALL PROVIDE ON-SITE CONTAINERS FOR COLLECTION OF WASTE MATERIALS AND SHALL REMOVE WASTE MATERIALS FROM THE SITE PERIODICALLY AND DISPOSE OF AT LEGAL DISPOSAL AREAS AWAY FROM THE SITE.
26. CONTRACTOR SHALL MAINTAIN RECORD DOCUMENTS (E.G., DRAWINGS, ADDENDA, CHANGE ORDERS, REVIEWED SHOP DRAWINGS, FIELD TEST RECORDS, ETC.) AT THE SITE AS DIRECTED BY THE OWNER. THE CONTRACTOR SHALL MAINTAIN AN ACCURATE RECORD OF CHANGES IN THE CONTRACT DOCUMENTS, AND SHALL TRANSFER THE RECORDED CHANGES TO A SET OF REPRODUCIBLE RECORD DOCUMENTS UPON COMPLETION OF THE WORK.
27. CONTRACTOR SHALL ESTIMATE SPECIAL INSPECTION COSTS IN THE BID. OWNER SHALL EMPLOY AND PAY A SPECIAL INSPECTOR.
28. REMOVAL AND DISPOSAL OF ANY HAZARDOUS MATERIAL (ASBESTOS, LEAD PAINTS, FLUORESCENT LIGHT BALLASTS, ETC.) SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
29. WELDERS SHALL BE CERTIFIED BY AWS AND THE GOVERNING AUTHORITY.
30. ALL EXITS MUST REMAIN OPERATIONAL DURING CONSTRUCTION. IF THERE IS A TEMPORARY CLOSURE OF EXITS, SPECIAL APPROVAL OF THE BUILDING DEPARTMENT AND THE FIRE DEPARTMENT MUST BE OBTAINED BY THE CONTRACTOR.
31. REBAR SHALL NOT BE CUT DURING INSTALLATION OF RETROFITS UNLESS APPROVED BY THE ENGINEER.

WORK RESTRICTIONS (01 14 00)

1. CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE FOR: CONSTRUCTION SCHEDULE; ACCESS T

ABBREVIATIONS

&	AND	H.P.	HIGH POINT
@	AT	HDR	HEADER
A.B.	ANCHOR BOLT	HORIZ	HORIZONTAL
A.C.I.	AMERICAN CONCRETE INSTITUTE	HT	HEIGHT
A.S.T.M.	AMERICAN SOCIETY FOR THE TESTING OF MATERIALS	I.D.	INSIDE DIAMETER
		I.F.	INSIDE FACE
ABV	ABOVE	IN	INCH
ADD'L	ADDITIONAL	INT	INTERIOR
ADJ	ADJACENT	JST	JOIST
ALT	ALTERNATE	JT	JOINT
APP	APPROVED	K	KIPS (1000 LBS)
ARCH	ARCHITECTURAL	L	ANGLE
A.O.F.	BOTTOM OF FOOTING	LHS	LEFT HAND SIDE
A.S.	BOTH SIDES	LG	LENGTH/LONG
BLDG	BUILDING	LT	LIGHT
BM	BEAM	LT.WT.	LIGHTWEIGHT
BOTT	BOTTOM	L.P.	LOWPOINT
BRG	BEARING	MAS	MASONRY
BTWN	BETWEEN	MATL	MATERIAL
C or MC	CHANNEL	MAX	MAXIMUM
C.I.P.	CAST IN PLACE	MB	MACHIINE BOLT
C.M.U.	CONCRETE MASONRY UNIT	MEP	MECHANICAL, ELECTRICAL & PLUMBING
CL	CENTER LINE		
CLOS	CLOSURE	MEZZ	MEZZANINE
CLG	CEILING	MFG	MANUFACTURER
CLR	CLEAR	MIN	MINIMUM
COL	COLUMN	MISC	MISCELLANEOUS
CONC	CONCRETE	MRF	MOMENT RESISTING FRAME
CONN	CONNECTION	MTL	METAL
CONST	CONSTRUCTION	N.IC.	NOT IN CONTRACT
CONT	CONTINUOUS	N.S.	NEAR SIDE
CTR	CENTER	N.T.S.	NOT TO SCALE
DEPT	DEPARTMENT	No.	NUMBER
DET	DETAIL	O.C.	ON CENTER
DIA	DIAMETER	O.D.	OUTSIDE DIAMETER
DIAG	DIAGONAL	O.F.	OUTSIDE FACE
DIM	DIMENSION	O.H.	OPPOSITE HAND
DN	DOWN	OOP	OUT-OF-PLANE
DO	DITTO	OPN'G	OPENING
DWGS	DRAWINGS	OPP	OPPOSITE
DWL	DOWEL	P.L.	PROPERTY LINE
EA	EACH	PERP	PERPENDICULAR
E.F.	EACH FACE	PL	PLATE
E.S.	EACH SIDE	PSF	POUND PER SQUARE FOOT
E.W.	EACH WAY	PSI	POUND PER SQUARE INCH
EL	ELEVATION	PT	PRETENSIONED, POST-TENSIONED
ELEC	ELECTRICAL	R.D.	ROOF DRAIN
(E)	EXISTING	REF	REFERENCE
ELEV	ELEVATION	REINF	REINFORCING
EQ	EQUAL	REQ'D	REQUIRED
EQUIP	EQUIPMENT	RHS	RIGHT HAND SIDE
EXIST	EXISTING	SHT	SHEET
EMBED.	EMBEDMENT	SIM	SIMILAR
EXT	EXTERIOR	S.O.G.	SLAB ON GRADE
F.F.	FINISH FLOOR	SPEC	SPECIFICATION
f'c	COMPRESSIVE STRENGTH OF CONCRETE AT THE AGE OF 28 DAYS	SQ	SQUARE
		STD	STANDARD
f'm	COMPRESSIVE STRENGHT OF CONCRETE MASONRY	STIFF.	STIFFENER
		STAGG.	STAGGERED
F.N.	FIELD NAIL	STL	STEEL
F.O.C.	FACE OF CONCRETE	STRUCT	STRUCTURES/STRUCTURAL
F.O.M.	FACE OF MASONRY	SYMM	SYMMETRICAL
F.O.S.	FACE OF STUD	T & B	TOP AND BOTTOM
F.X.	FAR SIDE	T.B.	TOP OF BEAM
FDN	FOUNDATION	TENS	TENSION / TENSILE
FIN	FINISH	T.O	TOP OF
FLG	FLANGE	T.O.C.	TOP OF CONCRETE
FLR	FLOOR	T.O.S.	TOP OF STEEL
FRP	FIBER REINFORCE POLYMER	T.S.	TOP OF SLAB
FRMG	FRAMING	T.W	TOP OF WALL
FT	FEET/FOOT	TSG	TAPERED STEEL GIRDER
FTG	FOOTING	THK	THICK
GA	GAUGE	THRD	THREADED
GL	GRID LINE	TS	STEEL TUBE
GALV	GALVANIZED	TYP	TYPICAL
GB	GRADE BEAM	U.N.O.	UNLESS NOTED OTHERWISE
		UBC	UNIFORM BUILDING CODE
		VERT	VERTICAL
		V.I.F.	VERIFY IN FIELD
		W.P.	WORK POINT
		W/	WITH
		WF	WIDE FLANGE
		WSB	WELDED STUD BOLTS
		WT	WEIGHT

CONCRETE REINFORCING STEEL (03 20 00)

1. BAR REINFORCEMENT SHALL BE ASTM A 706, GRADE 40 FOR #3 AND SMALLER, AND GRADE 60 FOR #4 AND LARGER UNLESS OTHERWISE NOTED. ALL REINFORCING SHALL BE FROM IDENTIFIED STOCK WITH MILL ANALYSIS.
2. LAP SPLICES OF REINFORCING BARS IN CONCRETE SHALL BE CLASS B, AS DEFINED IN ACI 318 (LATEST EDITION) BUT NOT LESS THAN 12 INCHES.
3. REINFORCING DETAILING, BENDING, AND PLACING SHALL BE IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE," LATEST EDITION, AND ACI DETAILING MANUAL 315 (LATEST EDITION).
4. ALL REINFORCING BAR BENDS SHALL BE MADE COLD. NO #5 OR LARGER BARS SHALL NOT BE RE-BENT WITHOUT APPROVAL FROM STRUCTURAL ENGINEER.
5. ALL REINFORCING STEEL, DOWELS, ANCHOR BOLTS, ETC., SHALL BE WELL SECURED IN PLACE PRIOR TO PLACING CONCRETE OR GROUT. CONTRACTOR SHALL USE TEMPLATE TO ENSURE ACCURATE PLACEMENT OF ANCHOR BOLTS, DOWELS, ETC.
6. WELDING IS ONLY PERMITTED FOR ASTM A706 REINFORCEMENT BARS.
7. WELDING OF REINFORCING BARS SHALL CONFORM TO AWS D1.4 AS INCORPORATED IN ACI 318 SECTION 12.14.3. E70XX ELECTRODES SHALL BE USED IN WELDING GRADE 40 REBAR. E90XX ELECTRODES SHALL BE USED IN WELDING GRADE 60 REBAR UNLESS NOTED OTHERWISE. REINFORCEMENT SHALL NOT BE WELDED UNTIL A CHEMICAL ANALYSIS SUFFICIENT TO DETERMINE THE CARBON EQUIVALENT IS PERFORMED. THE CARBON EQUIVALENT OF REINFORCING STEEL BARS SHALL BE CALCULATED FROM THE CHEMICAL COMPOSITION AS SHOWN IN THE MILL TEST REPORT. IF MILL TEST REPORTS ARE NOT AVAILABLE, A CHEMICAL ANALYSIS SHALL BE MADE OF BARS REPRESENTATIVE OF THE BARS TO BE WELDED. THE CARBON EQUIVALENT (C.E.) SHALL NOT EXCEED 0.55 AS CALCULATED PER AWS D1.4. A COPY OF THE MILL TEST REPORT SHALL BE SENT TO THE STRUCTURAL ENGINEER'S OFFICE PRIOR TO PLACEMENT OF REINFORCING STEEL IN CONCRETE MEMBERS. SPECIAL INSPECTION IS REQUIRED FOR ALL FIELD-WELDING.
8. INSTALLATION OF ADHESSIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY AN APPLICABLE CERTIFICATION PROGRAM. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESSIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT.

INSPECTIONS

1. EXPANSION TYPE ANCHOR BOLTS

   A. HILTI KWIK-BOLT TZ2 (ICC REPORT #ESR-4266)

1. APPLY PROOF TEST LOADS TO ANCHORS WITHOUT REMOVING THE NUT. IF NUT REMOVAL IS REQUIRED, REMOVE NUT AND INSTALL A THREADED COUPLER TO THE SAME TORQUE AS THE ORIGINAL NUT USING A TORQUE WRENCH AND APPLY THE LOAD.
2. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED IN CLOSE PROXIMITY TO THE ANCHOR BEING TESTED PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE(S).
3. TEST EQUIPMENT IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.
4. ACCEPTANCE CRITERIA:

   A. HYDRAULIC RAM METHOD:
   ANCHORS TESTED WITH A HYDRAULIC JACK OR SPRING LOADED DEVICES SHALL MAINTAIN THE TEST LOAD FOR A MINIMUM OF 15 SECONDS AND SHALL EXHIBIT NO OBSERVABLE MOVEMENT DURING THE TENSION TEST, E.G. AS EVIDENCED BY LOOSENING OF THE WASHER UNDER THE NUT.

   B. TORQUE WRENCH METHOD:
   THE APPLICABLE TEST TORQUE SHALL BE OBTAINED WITHIN ONE HALF (½) TURN OF THE NUT.

EXCEPTIONS:

A. WEDGE OR SLEEVE TYPE:
ONE-QUARTER (¼) TURN OF THE NUT FOR A (⅜) INCH ANCHOR ONLY.

B. THREADED TYPE:
ONE-QUARTER (¼) TURN OF THE SCREW AFTER INITIAL SEATING OF THE SCREW HEAD.

5. TESTING SHALL OCCUR 24 HOURS MIN. AFTER INSTALLATION OF THE SUBJECT ANCHORS.
6. TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE INSPECTOR OF RECORD.
7. TEST 100% OF THE INSTALLED ANCHORS IN STRUCTURAL APPLICATIONS PER SECTION 1910A.5.3.
8. TEST 50% OR ALTERNATE BOLTS IN A GROUP OF THE INSTALLED ANCHORS FOR NON-STRUCTURAL COMPONENTS SUCH AS EQUIPMENT ANCHORAGE PER SECTION 1910A.5.3.
9. IF ANY ANCHOR FAILS TESTING ALL ANCHORS OF THE SAME TYPE SHALL BE TESTED, WHICH ARE INSTALLED BY THE SAME TRADE. NOT PREVIOUSLY TESTED UNTIL (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE ORIGINAL TEST FREQUENCY.

TEST LOADS TABLE FOR HILTI KWIK BOLT TZ2 ANCHORS

TYPE OF MATERIALS	TYPE OF TEST		BOLT DIAMETER							
			⅜"	½"	½"	⅝"	⅝"	⅝"	¾"	¾"
NORMAL OR LIGHT WEIGHT CONCRETE	TORQUE WRENCH (FT-LBS)	CARBON STEEL	30	50	50	40	40	40	110	110
		STAINLESS	30	40	40	60	60	60	125	125
	MINIMUM EMBEDMENT (HEF)		2"	2"	2½"	2¾"	3½"	4"	3½"	4¼"
	MINIMUM HOLE DEPTH (HO)		2¾"	2¾"	3¼"	3½"	4¼"	4½"	4¾"	5¼"
	MINIMUM EDGE DISTANCE	CARBON STEEL	2½"	2½"	2½"	4½"	3½"	2½"	4"	3½"
		STAINLESS	2½"	2½"	2½"	4	3¼"	2¼"	4"	3¼"
	MINIMUM MEMBER THICKNESS		4"	4"	5"	5"	5½"	6"	6"	8"

2. EPOXY-TYPE ANCHORS

A. HILTI RE-500 V3

1. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED IN CLOSE PROXIMITY TO THE ANCHOR BEING TESTED PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE (S).
2. TEST EQUIPMENT IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.
3. THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:

   HYDRAULIC RAM METHOD:
   THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD.

4. TESTING SHOULD OCCUR A MINIMUM OF 24 HOURS AFTER INSTALLATION OF THE SUBJECT ANCHORS.
5. TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE INSPECTOR OF RECORD.
6. TEST 25% OF THE INSTALLED ANCHORS PER SECTION 1910A.5.3

HILTI RE-500 V3 DIRECT-PULL TENSION TEST LOADS: REBAR ANCHORED IN LIGHT WEIGHT CONCRETE

REBAR SIZE	MIN EMBEDMENT DEPTH (INCHES)	3,000 PSI PROOF LOAD (LBS)
No. 3	2"	1,500

HILTI RE-500 V3 DIRECT-PULL TENSION TEST LOADS: REBAR ANCHORED IN NORMAL WEIGHT CONCRETE

REBAR SIZE	MIN EMBEDMENT DEPTH (INCHES)	4,000 PSI PROOF LOAD (LBS)
No. 4	3"	3,400

INTERNATIONAL CODE COUNCIL (ICC) EVALUATION REPORTS

THE FOLLOWING ITEMS SHALL BE MANUFACTURED AND INSTALLED PER THE REQUIREMENTS OF THE REFERENCED ICC REPORT NUMBER:

ITEMS	ICC REPORT NUMBER
HILTI KWIK BOLT TZ2 ANCHORS	ESR-4266
HILTI RE-500V3	ESR-3814

CONCRETE (DIVISION 03)
CAST-IN-PLACE CONCRETE (03 30 00)

1. CEMENT SHALL BE LOW ALKALI AND SHALL CONFORM TO ASTM C 150, TYPE II OR V.
2. AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C 33. SUPPLIERS OF AGGREGATE SHALL PROVIDE EVIDENCE THAT AGGREGATE IS FREE OF DELETERIOUS REACTIVITY.
3. AGGREGATES FOR LIGHTWEIGHT CONCRETE SHALL CONFORM TO ASTM C 330, AND SHALL BE EXPANDED SHALE-PUMICE SHALL NOT BE USED. SUPPLIERS OF AGGREGATE SHALL PROVIDE EVIDENCE THAT AGGREGATE IS FREE OF DELETERIOUS REACTIVITY.
4. READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C 94.
5. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE," EXCEPT AS MODIFIED BY THESE NOTES.
6. WHERE NOT OTHERWISE INDICATED ON THE DRAWINGS, PROVIDE CONCRETE IN ACCORDANCE WITH THE FOLLOWING TABLE

USE	Air dry wt. Normal (1)	Air dry wt. Lt. Wt. (2)	F'c (psi) 28 day strength	Slump (inch) max. (3)	Aggregate (inch) max. (4)	Max. Water Cementitious ratio (5)
LEVEL 1 CONCRETE OVER METAL DECK	•		4,000	4"	3/8"	0.5
ROOF RAISED PADS		•	4,000	4"	3/8"	0.5

(CONCRETE TABLE FOOTNOTES):

(1) AIR DRY WEIGHT SHALL NOT EXCEED 150 POUNDS PER CUBIC FOOT.

(2) AIR DRY WEIGHT SHALL NOT EXCEED 110 POUNDS PER CUBIC FOOT.

(3) SUPER-PLASTICIZERS SHALL BE ADDED AT THE BATCH PLANT. CONCRETE WITH SUPER-PLASTICIZERS DESIGNED INTO THE MIX SHALL HAVE SLUMP OF 2 TO 3 INCHES, WITHOUT SUPER-PLASTICIZER ADDED.

(4) NOMINAL MAXIMUM AGGREGATE SIZE SHALL NOT BE MORE THAN 1/3 THICKNESS OF CONCRETE COMPONENTS COMPONENT OR 3/4 OF THE MINIMUM CLEAR SPACING REINFORCING O BUNDLES OF REINFORCING.

(5) MAXIMUM WATER-CEMENTITIOUS MATERIALS RATIO BY WEIGHT (NON-AIR ENTRAINED).

7. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND REVIEWED BY THE STRUCTURAL ENGINEER PRIOR TO USE. CONCRETE MIX DESIGN SHALL BEAR A WET SEAL AND SIGNATURE OF A REGISTERED CIVIL ENGINEER EMPLOYED BY THE QUALIFIED TESTING LABORATORY PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER FOR REVIEW. THE CONCRETE MIX DESIGN SHALL STATE THE SOURCE OF THE AGGREGATES AND SHALL INCLUDE AN AFFIDAVIT THAT THE AGGREGATE IS NOT EXPANSIVE OR OTHERWISE CHEMICALLY DETRIMENTAL.
8. ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER. ADMIXTURES SHALL COMPLY WITH ASTM A 494 AND BE OF A TYPE THAT INCREASES THE WORKABILITY OF THE CONCRETE, BUT SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT (CALCIUM CHLORIDE SHALL NOT BE USED).
9. MATERIAL ADMIXTURE SHALL CONFORM TO ASTM C618, CLASS F (NO CLASS C PERMITTED); FLY ASH POZZOLAN; LOSS ON IGNITION NO MORE THAN 4%. WEIGHT OF FLY ASH SHALL BE BETWEEN 20% AND 25% OF WEIGHT OF CEMENTITIOUS MATERIALS.
10. NO CONDUIT PLACED IN A CONCRETE SLAB SHALL HAVE AN OUTSIDE DIAMETER GREATER THAN 1/3 THE THICKNESS OF THE SLAB. NO CONDUIT SHALL BE EMBEDDED IN A SLAB THAT IS LESS THAN 3-1/2 INCHES THICK, EXCEPT FOR LOCAL OFFSETS, MINIMUM CLEAR DISTANCE BETWEEN CONDUITS SHALL BE 3 DIAMETERS OR WIDTHS ON CENTER.
11. NO CONDUIT SHALL BE PLACED IN THE CONCRETE TOPPING OVER THE STEEL DECKING WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.
12. PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 3/4 INCH CHAMFER UNLESS OTHERWISE NOTED.
13. REFER TO ARCHITECTURAL DRAWINGS FOR MOLDS, GROOVES, ORNAMENTS, CLIPS, OR GROUNDS REQUIRED TO BE CAST INTO CONCRETE.
14. CONSTRUCTION JOINTS FOR CAST-IN-PLACE CONCRETE WALLS SHALL BE IN ACCORDANCE WITH ACI 301, SECTION 5.3.2.6. ROUGHEN ALL SURFACES TO A MINIMUM OF 1/4 INCH AGGREGATE EXPOSURE PRIOR TO ADJACENT POUR.
15. ALL PHASES OF WORK PERTAINING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE "(ACI 318, LATEST APPROVED EDITION), WITH MODIFICATIONS AS NOTED ON THE DRAWINGS OR SPECIFICATIONS.
16. DRYPACK UNDER BASEPLATES, SILL PLATES, AND WHERE OTHERWISE NOTED ON DRAWINGS SHALL CONSIST OF 1 PART PORTLAND CEMENT AND 2-1/2 PARTS OF FINE AGGREGATE CONFORMING TO ASTM C 33, WITH ENOUGH WATER TO FORM A BALL WHEN SQUEEZED IN THE HAND. THE SPACE BETWEEN TWO SURFACES REQUIRING DRYPACK SHALL BE PACKED WITH THE DRYPACK MATERIALBY TAMPING OR RAMMING WITH A BAR OR ROD UNTIL THE VOIDS ARE COMPLETELY FILLED. NON-SHRINK GROUT MAY BE USED IN LIEU OF DRYPACK.
17. REINFORCED STEEL CLEARANCE

A. PRESERVE CLEARANCE BETWEEN BARS OF NOT LESS THAN THE NOMINAL DIAMETER OF THE BARS.

B. IN NO CASE SHALL THE CLEAR DISTANCE BE LESS THAN 1 INCH OR LESS THAN 1-1/3 TIMES THE MAXIMUM SIZE OF AGGREGATE, WHICHEVER IS GREATER.

1. CONCRETE DEPOSITED AGAINST EARTH:.....3 INCHES
2. CONCRETE SURFACE (FORMED) EXPOSED TO EARTH AND WEATHER:
   #6 THROUGH #11 BARS:.....2 INCHES
   #5 BAR AND SMALLER:.....1-1/2 INCHES
3. CONCRETE NOT EXPOSED TO EARTH AND/OR WEATHER:
   A. SLABS, WALLS, JOISTS:
   #14 & #18 BARS:.....1-1/2 INCHES
   #11 BAR AND SMALLER:.....3/4 INCHES
   B. BEAMS, COLUMNS:
   PRIMARY REINFORCEMENT, TIES,
   STIRRUPS, SPIRALS:.....1-1/2 INCHES
4. PLACE TEMPERATURE REINFORCING FOR SLABS ON GRADE AT 1 1/2 INCHES CLEAR FROM TOP OF SURFACE.

18. ALL REINFORCING BARS, ANCHOR BOLTS, DOWELS, AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE. WET SETTING SHALL NOT BE PERMITTED.
19. PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. CORING IN CONCRETE IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE DRAWINGS.
20. CURING COMPOUND USED ON CONCRETE THAT IS TO RECEIVE A RESILIENT TILE FINISH SHALL BE APPROVED BY THE TILE MANUFACTURER BEFORE USE.
21. CONCRETE SLABS SHALL BE CURED BY KEEPING CONTINUOUSLY WET FOR 7 DAYS. FORMS FOR CONCRETE WALLS SHALL BE LEFT IN PLACE FOR 7 DAYS, OR THE WALLS MAY BE STRIPPED AFTER 3 DAYS AND THEN COVERED WITH BURLAP WHICH SHALL BE KEPT WET FOR AN ADDITIONAL 7 DAYS. CURING COMPOUNDS SHALL NOT BE PERMITTED U.N.O.
22. NO STAKES, STEEL OR WOOD, WILL BE PERMITTED IN ANY CONCRETE POUR. SUSPEND FORMS FROM ABOVE THE POUR.
23. A CURING COMPOUND APPROVED BY THE STRUCTURAL ENGINEER MAY BE USED ON CONCRETE FLOOR TOPPING SLABS TO PROTECT WOOD FRAMING FROM WATER EXPOSURE.

CONCRETE REINFORCING STEEL (03 20 00)

1. BAR REINFORCEMENT SHALL BE ASTM A 706, GRADE 40 FOR #3 AND SMALLER, AND GRADE 60 FOR #4 AND LARGER UNLESS OTHERWISE NOTED. ALL REINFORCING SHALL BE FROM IDENTIFIED STOCK WITH MILL ANALYSIS.
2. LAP SPLICES OF REINFORCING BARS IN CONCRETE SHALL BE CLASS B, AS DEFINED IN ACI 318 (LATEST EDITION) BUT NOT LESS THAN 12 INCHES.
3. REINFORCING DETAILING, BENDING, AND PLACING SHALL BE IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE," LATEST EDITION, AND ACI DETAILING MANUAL 315 (LATEST EDITION).
4. ALL REINFORCING BAR BENDS SHALL BE MADE COLD. NO #5 OR LARGER BARS SHALL NOT BE RE-BENT WITHOUT APPROVAL FROM STRUCTURAL ENGINEER.
5. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH, WHICHEVER IS GREATER.
6. SPLICES IN ADJACENT HORIZONTAL WALL REINFORCEMENT SHALL BE STAGGERED 4'-0" MINIMUM UNLESS OTHERWISE NOTED.
7. ALL REINFORCING STEEL, DOWELS, ANCHOR BOLTS, ETC., SHALL BE WELL SECURED IN PLACE PRIOR TO PLACING CONCRETE OR GROUT. CONTRACTOR SHALL USE TEMPLATE TO ENSURE ACCURATE PLACEMENT OF ANCHOR BOLTS, DOWELS, ETC.
8. WELDING IS ONLY PERMITTED FOR ASTM A706 REINFORCEMENT BARS.
9. WELDING OF REINFORCING BARS SHALL CONFORM TO AWS D1.4 AS INCORPORATED IN ACI 318 SECTION 12.14.3. E70XX ELECTRODES SHALL BE USED IN WELDING GRADE 40 REBAR. E90XX ELECTRODES SHALL BE USED IN WELDING GRADE 60 REBAR UNLESS NOTED OTHERWISE. REINFORCEMENT SHALL NOT BE WELDED UNTIL A CHEMICAL ANALYSIS SUFFICIENT TO DETERMINE THE CARBON EQUIVALENT IS PERFORMED. THE CARBON EQUIVALENT OF REINFORCING STEEL BARS SHALL BE CALCULATED FROM THE CHEMICAL COMPOSITION AS SHOWN IN THE MILL TEST REPORT. IF MILL TEST REPORTS ARE NOT AVAILABLE, A CHEMICAL ANALYSIS SHALL BE MADE OF BARS REPRESENTATIVE OF THE BARS TO BE WELDED. THE CARBON EQUIVALENT (C.E.) SHALL NOT EXCEED 0.55 AS CALCULATED PER AWS D1.4. A COPY OF THE MILL TEST REPORT SHALL BE SENT TO THE STRUCTURAL ENGINEER'S OFFICE PRIOR TO PLACEMENT OF REINFORCING STEEL IN CONCRETE MEMBERS. SPECIAL INSPECTION IS REQUIRED FOR ALL FIELD-WELDING.
10. INSTALLATION OF ADHESSIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY AN APPLICABLE CERTIFICATION PROGRAM. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESSIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT.

1 **GENERAL NOTES 2**
SCALE: 3/4" = 1'-0"

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Riverside University HEALTH SYSTEM

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CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER
TRACY R. RICH
RENEWAL 12/31/24
NO. 4831
STRUCTURAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	Issue Date

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

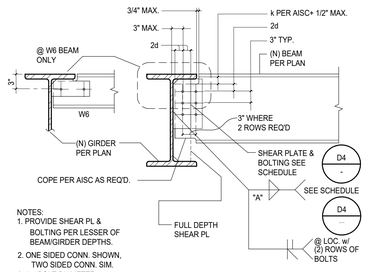
PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
GENERAL NOTES 2

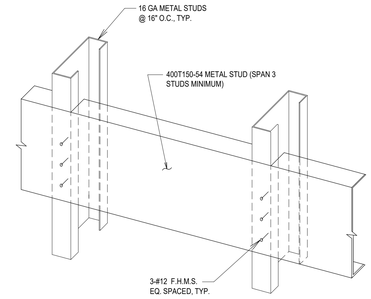
SHEET NUMBER
S002

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D2 (N) BEAM TO (N) BEAM SIMPLE CONNECTIONS

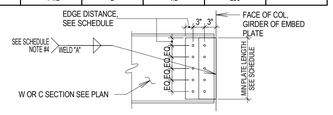
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D3 METAL BACKING

SCALE: 1 1/2" = 1'-0"

NOMINAL BEAM/GIRDER DEPTH (1)	MINIMUM PLATE LENGTH (IN)	SHEAR PLATE THICKNESS (IN)	NUMBER OF VERTICAL ROWS OF BOLTS	NUMBER OF BOLTS PER ROW	BOLT DIAMETER (IN) (2)	EDGE DISTANCE (IN)	WELD "A" (2)	ASD DESIGN SHEAR STRENGTH (KIPS)	REMARKS
W8x	6	3/8	1	2	3/4	1 1/2	1/4	8	
W12x & C12	9	3/8	1	3	3/4	1 1/2	1/4	16	
W14x	11	3/8	1	3	1	1 1/2	1/4	29	
W16x	13	1/2	1	4	1	1 1/2	1/4	47	
W18x	15	1/2	1	4	1	2	1/4	47	
W21x	18	1/2	1	5	1 1/8	2	1/4	75	
W24x	20	1/2	1	6	1 1/8	2	1/4	91	
W27x	24	3/4	2	7	1 1/8	2	3/8	217	
W30x	26	1 1/2	2	6	1 1/2	2	1/2	298	

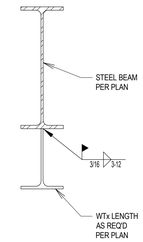


NOTES:

1. C BEAM CONNECTION SIMILAR TO W BEAM OF SAME DEPTH.
2. PROVIDE STANDARD AISC ROUND HOLES IN SHEAR PLATE.
3. PROVIDE THE LARGER OF WELD INDICATED & AWS MINIMUM.
4. WELD "A" SHALL BE FILLET WELD ON BOTH SIDES. WELD "A" CAN BE SUBSTITUTED WITH C.P. GROVE WELD WITH BACKING BAR REMOVED.
5. ALL BOLTS ARE A325 BOLTS PER GENERAL NOTES.
6. CONNECTION PLATE IS CONFORMING TO A992 OR A572 GRADE 50, Fy=50 KSI, Fu=65 KSI.

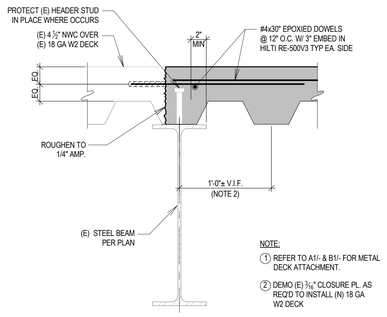
D4 SHEAR PLATE BOLTING SCHEDULE

SCALE: 3/4" = 1'-0"

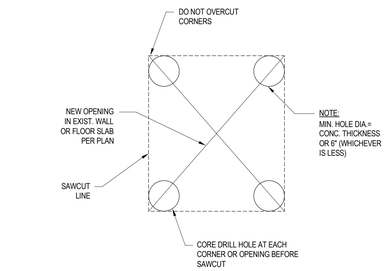


C2 STEEL BEAM STRENGTHENING

SCALE: 1 1/2" = 1'-0"



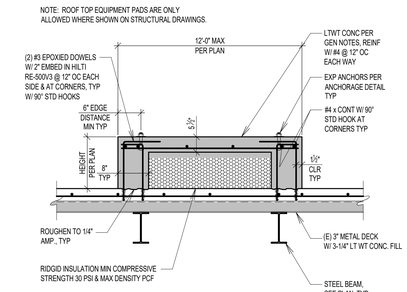
DECK PARALLEL TO BEAM



NOTE
1. REFER TO PLAN FOR ADDITIONAL FRAMING NOT SHOW.

C4 NEW OPENING IN EXIST. SLAB

SCALE: 3/4" = 1'-0"

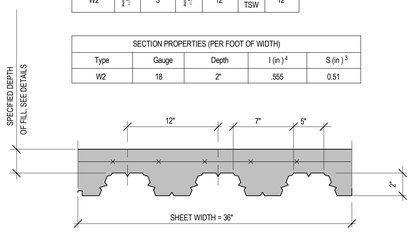


C5 ROOF TOP EQUIOMENT PAD

SCALE: 3/4" = 1'-0"

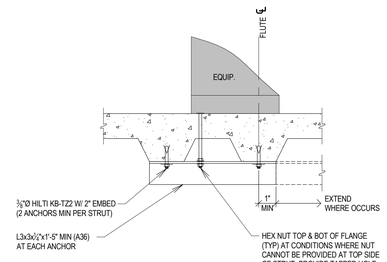
VERCO DECK DEPTH AND SECTION TYPE	DECK WELDS, SEE A1 -					
	WELD (A)		WELD (B)		SIDELAP ATTACHMENT	
	SIZE AND TYPE	# PER SHEET	SIZE AND TYPE	SPAC-ING	TYPE	SPAC-ING
W2	3/4" Ø	3	3/4" Ø	12"	1-1/2" TSW	12"

SECTION PROPERTIES (PER FOOT OF WIDTH)				
Type	Gauge	Depth	I (in.)⁴	S (in.)³
W2	18	2"	.555	0.51



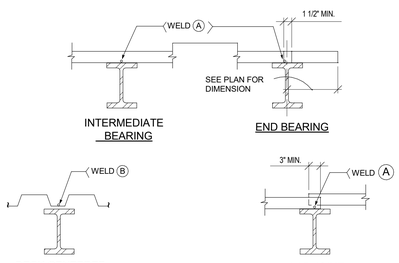
TYPE W2 DECK

NOTE: OR EQUIVALENT BUTTON PUNCH



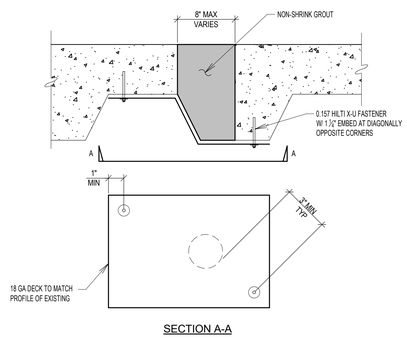
B1 METAL DECK PROPERTIES

SCALE: NTS



B2 THRU BOLT STRUT DETAIL

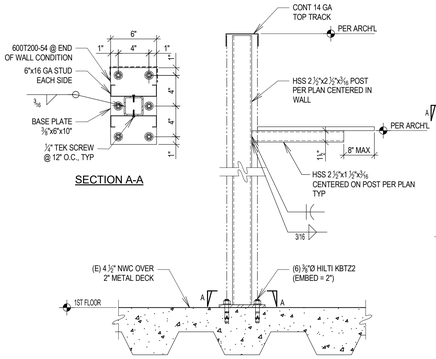
SCALE: 1 1/2" = 1'-0"



SECTION A-A

B3 FLOOR DECK INFILL

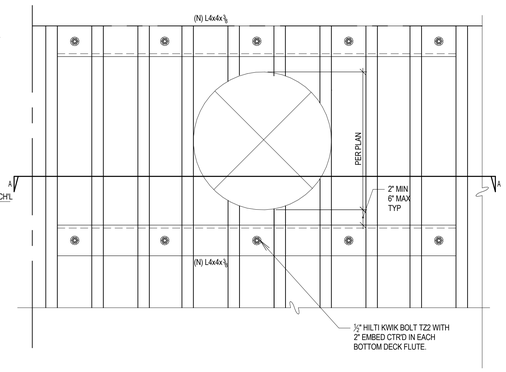
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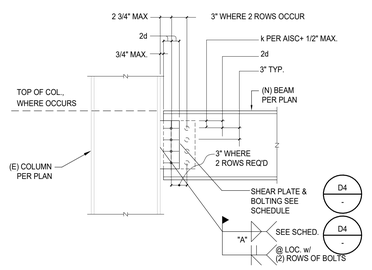
SECTION A-A

B5 (N) BEAM TO (E) GIRDER SIMPLE CONNECTIONS

SCALE: 3/4" = 1'-0"



PLAN



A1 METAL DECK WELDING

SCALE: NTS

A2 INFIL OF SMALL SLAB OPENING

SCALE: 3" = 1'-0"

A3 PONY WALL SECTION

SCALE: NTS

A4 FLOOR / ROOF PENETRATION SLAB STRENGTHENING

SCALE: 1 1/2" = 1'-0"

A5 (N) BEAM TO (E) COLUMN FLANGE SIMPLE CONNECTIONS

SCALE: 3/4" = 1'-0"

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CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER TRACY R. RICH RENEWAL 12/31/24 NO. 4831 STRUCTURAL STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	Issue Date

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

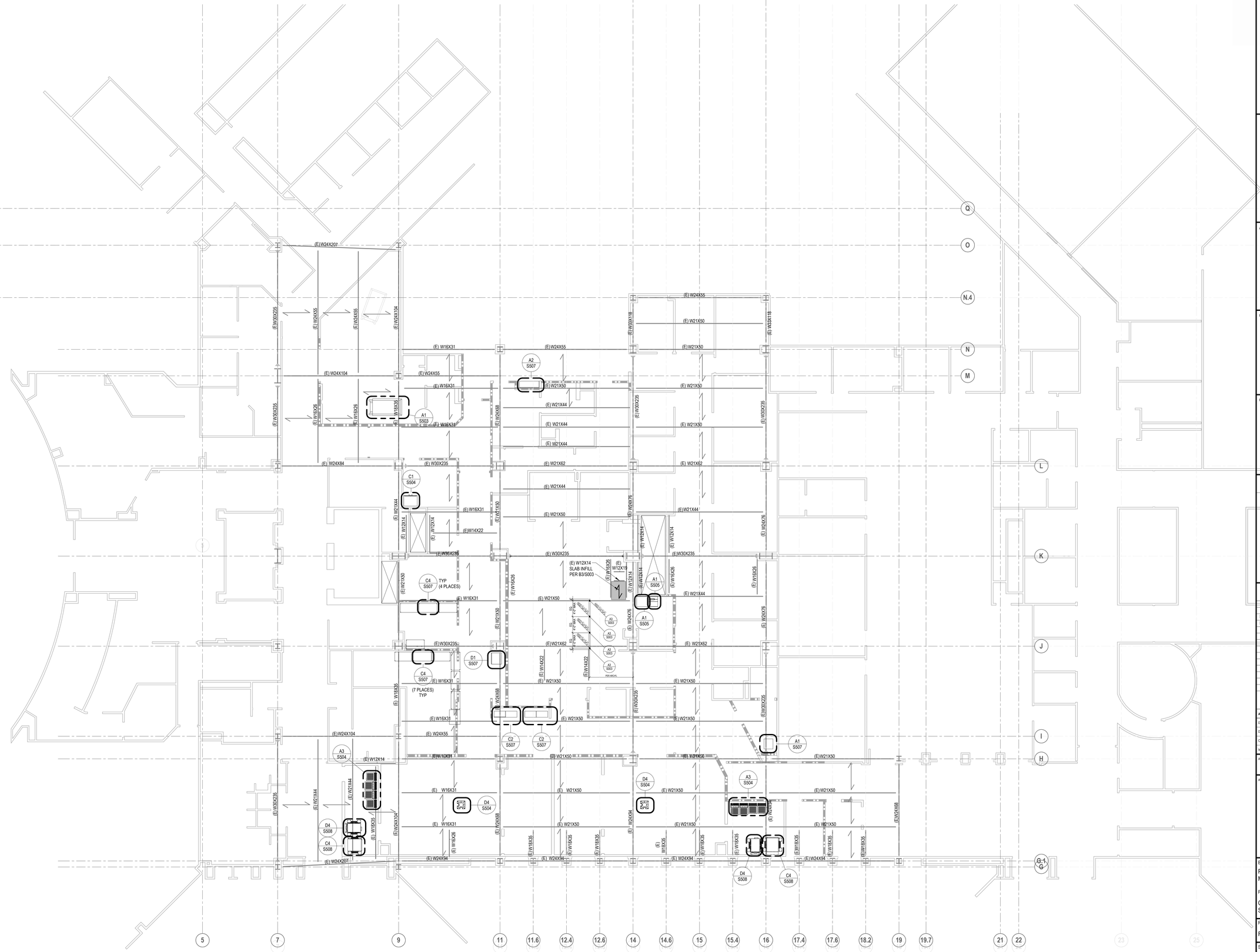
TYPICAL DETAILS

SHEET NUMBER

S003

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7/2/2024 9:45:26 AM Autodesk Docs://047-10071-002_RUHS-TCI-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-STRU.rvt



NOTE:
1. (E) FLOOR SLAB IS 4- 1/2" THICK NORMAL WEIGHT CONCRETE OVER 2"x18 GA COMPOSITE DECK (f'c = 4,000 PSI).
2. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBIN DRAWINGS FOR INFO NOT SHOWN.

TRUE NORTH

N

A3 LEVEL 1 - PARTIAL FRAMING & FLOOR PLAN
SCALE: 1/8" = 1'-0"

7/2/2024 9:45:29 AM Autodesk Docs://047-10071-002_RUHS-TO-1, Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-STRU.rvt

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RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

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REGISTERED PROFESSIONAL ENGINEER
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RENEWAL 12/31/24
NO. 4831
STRUCTURAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	MR
Draw	LL
Check	MR
Issue Date	Issue Date

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

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Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
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BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
LEVEL 1 - PARTIAL FRAMING & FLOOR PLAN

SHEET NUMBER
S111

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NOTE:
1. (E) FLOOR SLAB IS 3-1/4" THICK LIGHT WEIGHT CONCRETE OVER 3"x18 GA COMPOSITE DECK (f'c = 3,500 PSI).
2. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR INFO NOT SHOWN.

A1 LEVEL 2 - PARTIAL FRAMING PLAN
SCALE: 1/8" = 1'-0"

TRUE NORTH

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BUILDING TITLE
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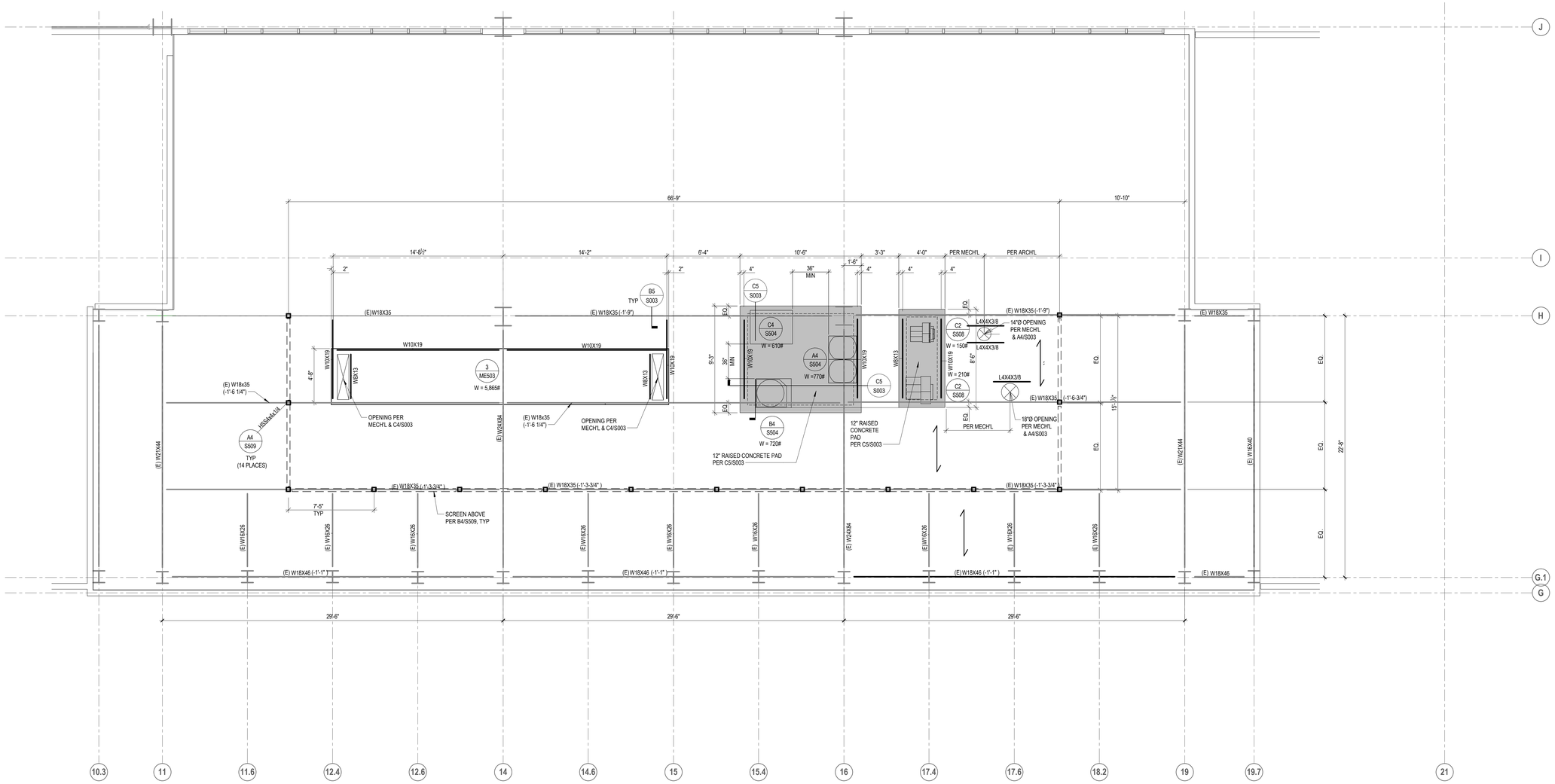
PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
LEVEL 2 - PARTIAL FRAMING PLAN

SHEET NUMBER
S112

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NOTE:
1. (E) FLOOR SLAB IS 3-1/4" THICK LIGHT WEIGHT CONCRETE OVER 3"x18 GA COMPOSITE DECK (f'c = 3,500 PSI).
2. REFER TO ARCHITECTURAL & MECHANICAL DRAWINGS FOR INFO NOT SHOWN.

A1 LEVEL 3 - PARTIAL FRAMING PLAN
SCALE: 1/4" = 1'-0"

TRUE NORTH

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KEY PLAN

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Design	Designer
Draw	Author
Check	Checker
Issue Date	Issue Date

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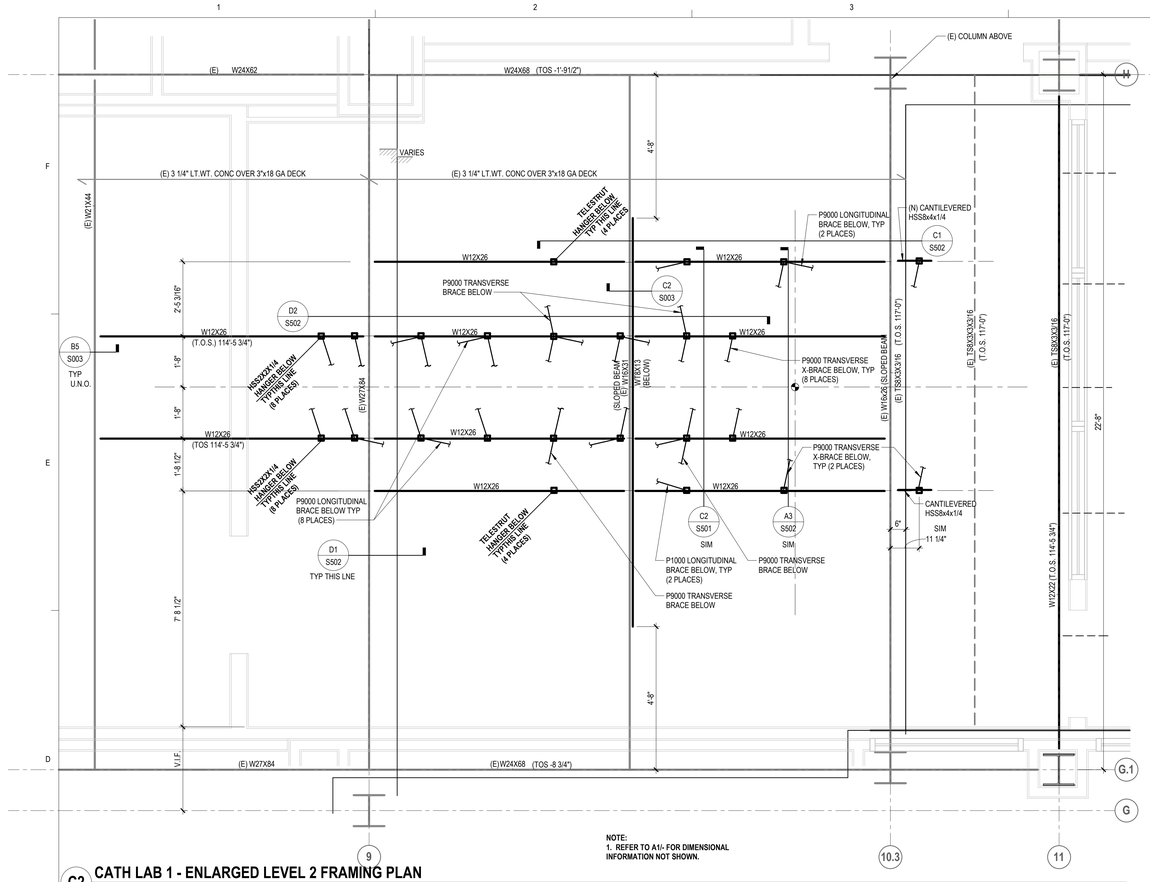
PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
PARTIAL THIRD LEVEL FRAMNG PLAN

SHEET NUMBER
S113

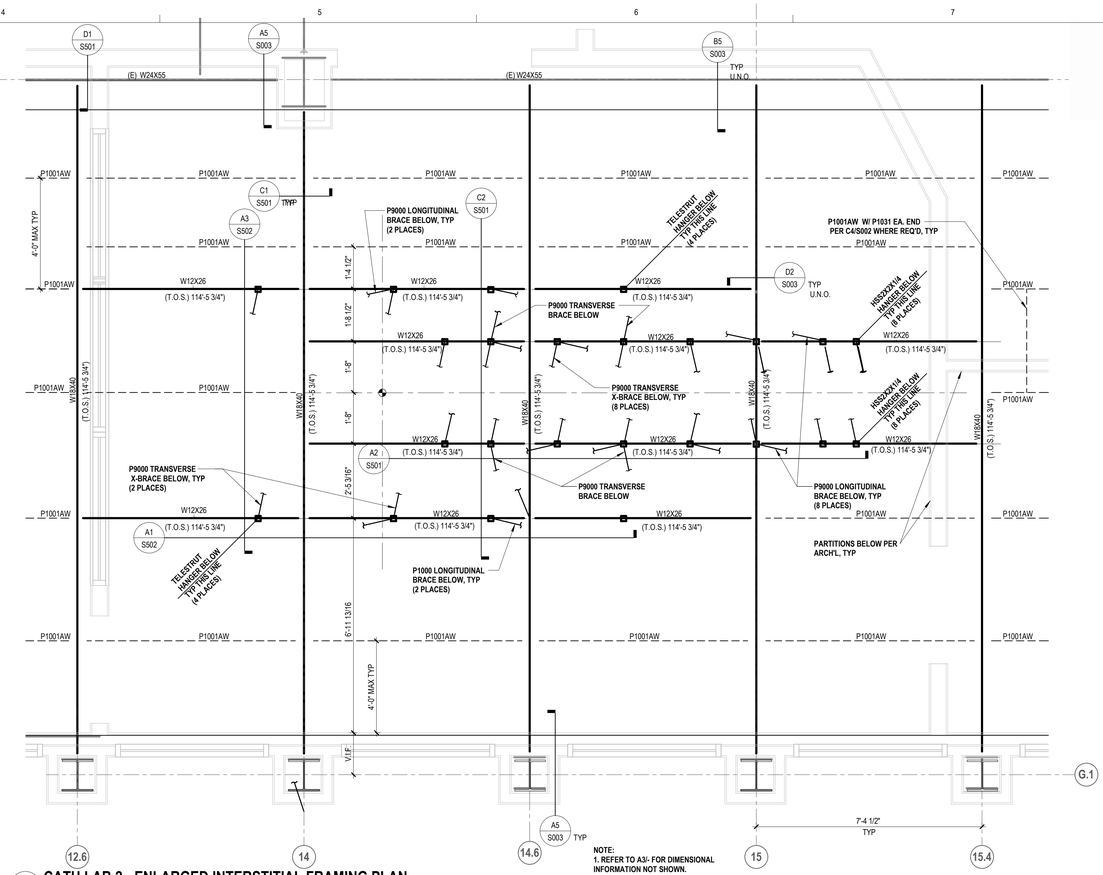
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NOTE:
1. REFER TO A1/- FOR DIMENSIONAL INFORMATION NOT SHOWN.

C2 CATH LAB 1 - ENLARGED LEVEL 2 FRAMING PLAN

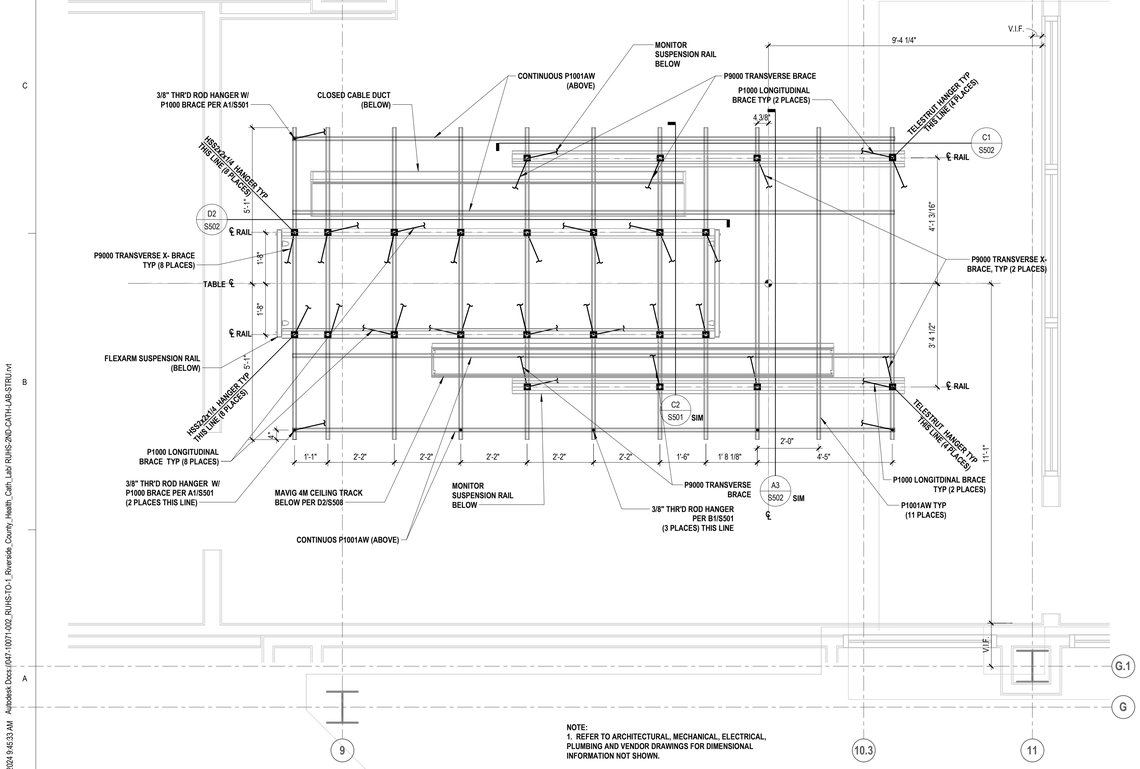
SCALE: 1/2" = 1'-0"



NOTE:
1. REFER TO A3/- FOR DIMENSIONAL INFORMATION NOT SHOWN.

C3 CATH LAB 2 - ENLARGED INTERSTITIAL FRAMING PLAN

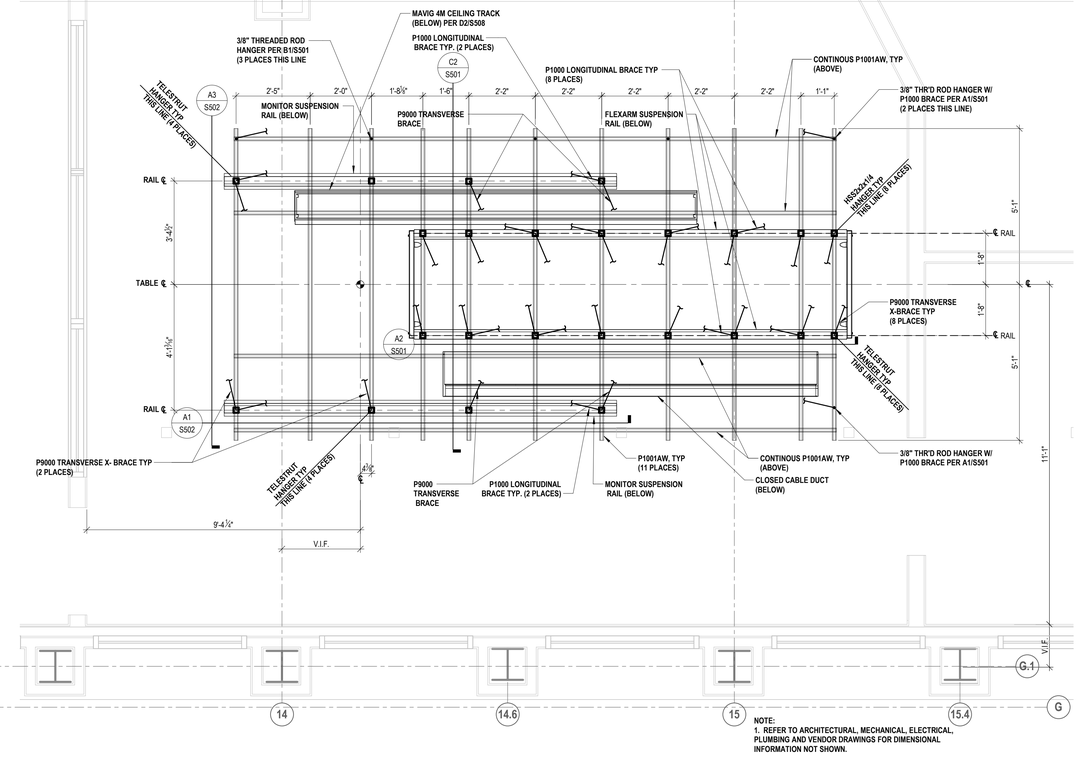
SCALE: 1/2" = 1'-0"



NOTE:
1. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND VENDOR DRAWINGS FOR DIMENSIONAL INFORMATION NOT SHOWN.

A1 CATH LAB 1 - ENLARGED STRUCTURAL CEILING FRAMING PLAN

SCALE: 1/2" = 1'-0"



NOTE:
1. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND VENDOR DRAWINGS FOR DIMENSIONAL INFORMATION NOT SHOWN.

A3 CATH LAB 2 - ENLARGED CEILING FRAMING PLAN

SCALE: 1/2" = 1'-0"

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NO. 4831
STRUCTURAL
STATE OF CALIFORNIA

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BUILDING TITLE

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PROJECT TITLE

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

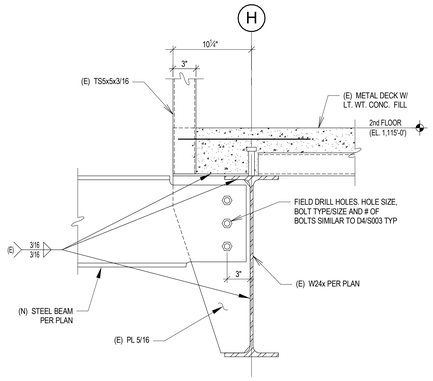
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ENLARGED PLANS

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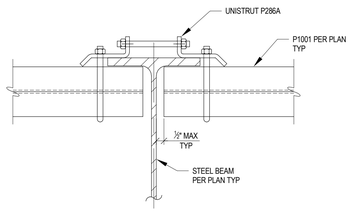
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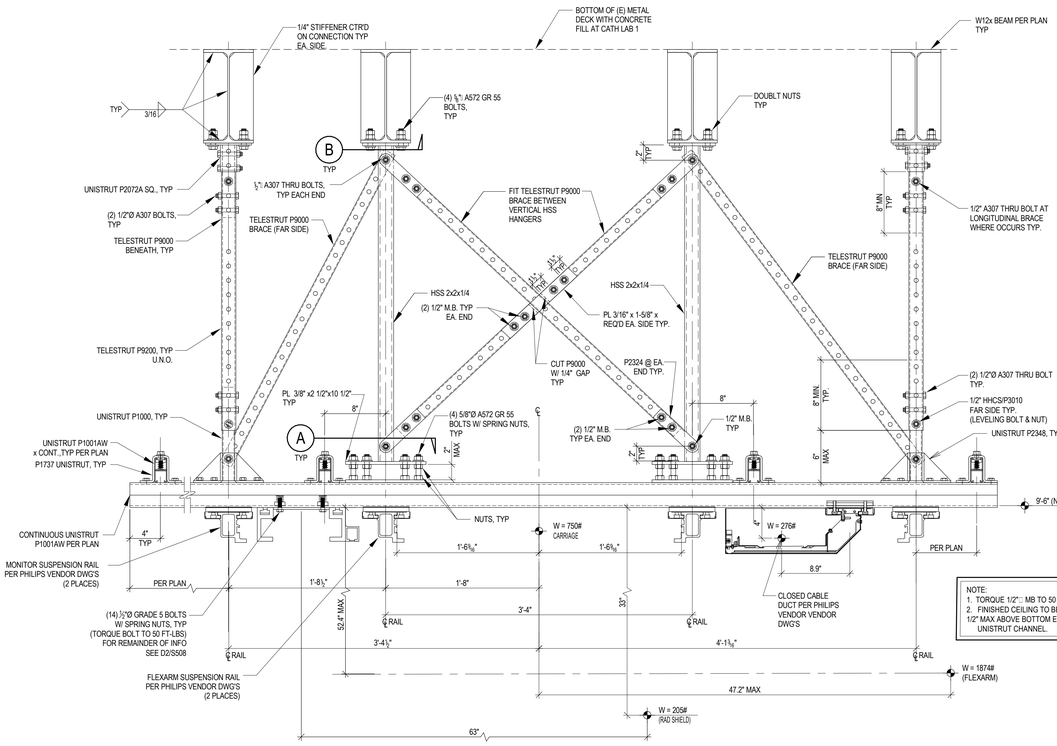
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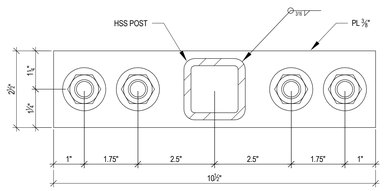


D1 BEAM SECTION

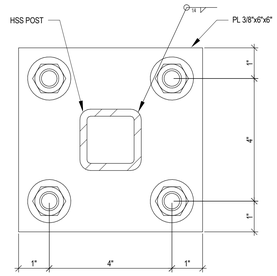
SCALE: 1 1/2" = 1'-0"







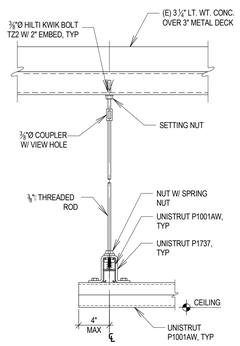
SECTION A



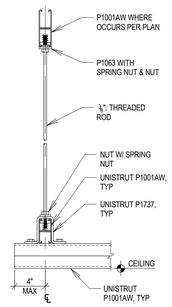
SECTION B

C1 BEAM SECTION AT P1001 MEMBERS

SCALE: 3" = 1'-0"



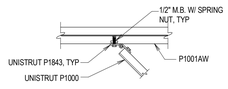
HANGER CONNECTION AT SLAB



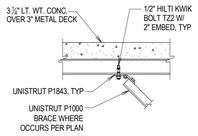
HANGER CONNECTION AT P1001AW

B1 THREADED ROD HANGER DETAIL

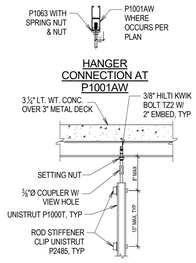
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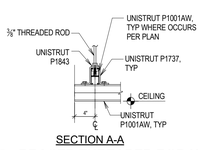
BRACE CONNECTION AT P1001AW



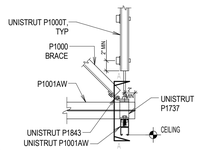
BRACE CONNECTION AT SLAB



HANGER CONNECTION AT SLAB



SECTION A-A

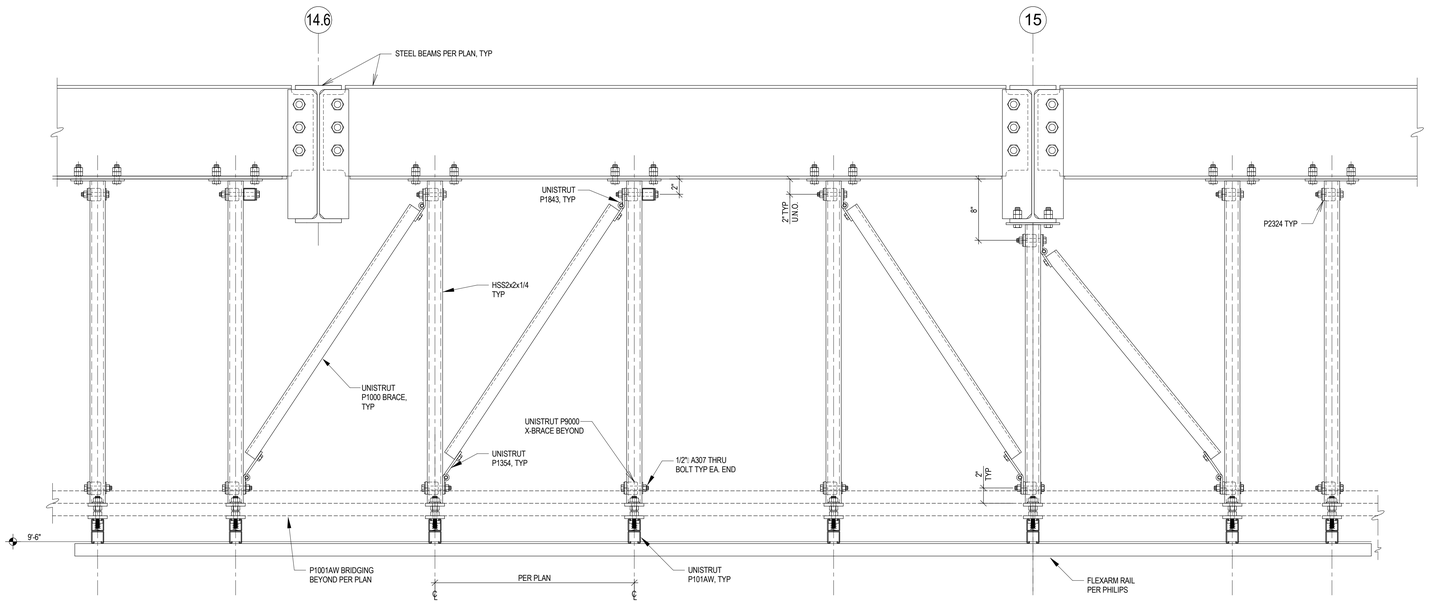


A1 BRACED THREADED ROD HANGER DETAIL

SCALE: 1" = 1'-0"

C2 SUSPENDED CEILING STRUCTURE SECTION

SCALE: 1 1/2" = 1'-0"



A2 CATH LAB 2 - SUSPENDED CEILNG STRUCTURE SECTION

SCALE: 1 1/2" = 1'-0"

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Draw	Author
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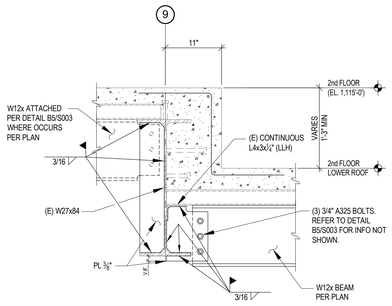
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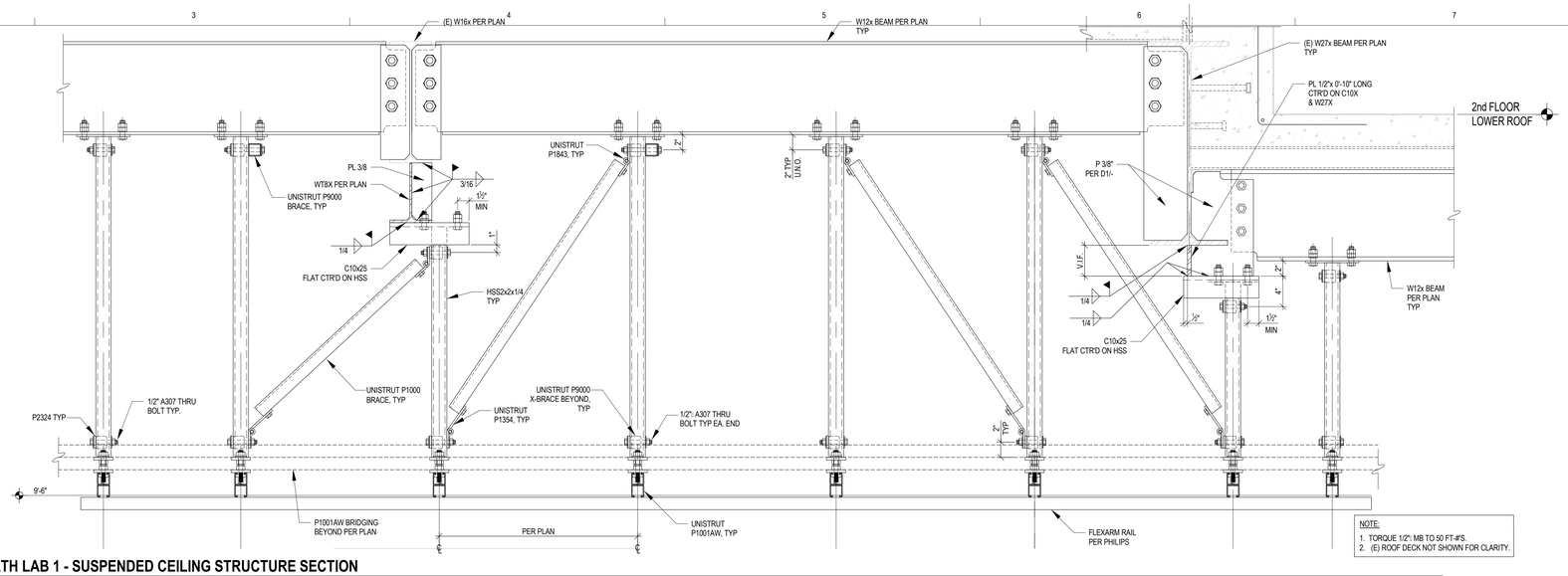
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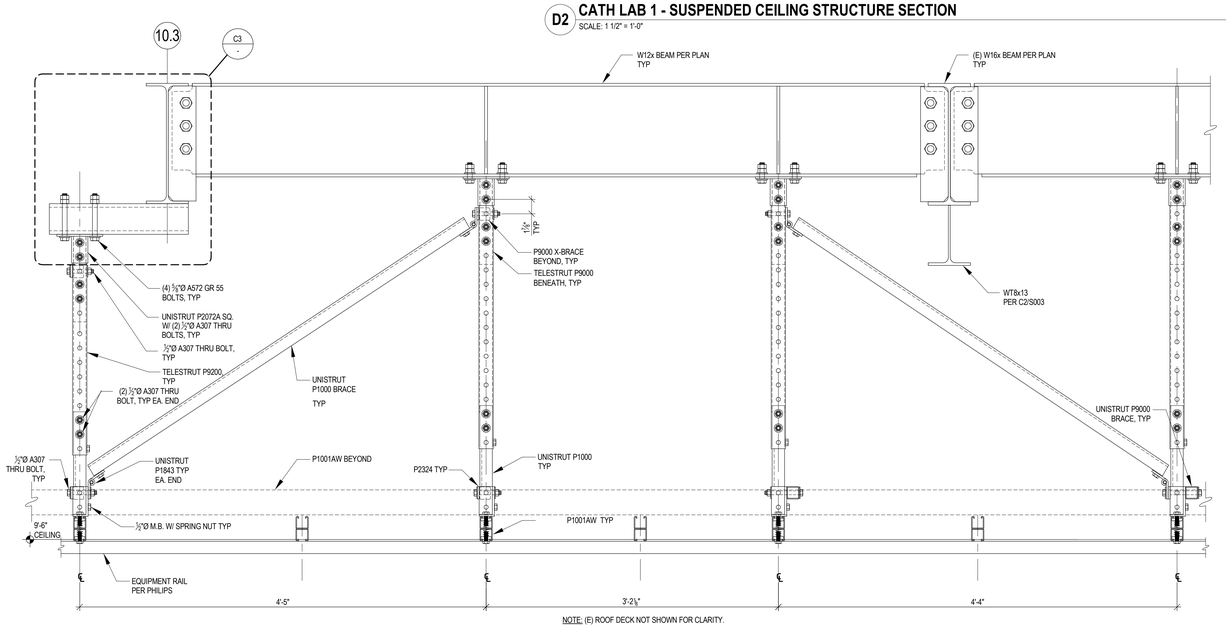


D1 BEAM SECTION
SCALE: 1" = 1'-0"



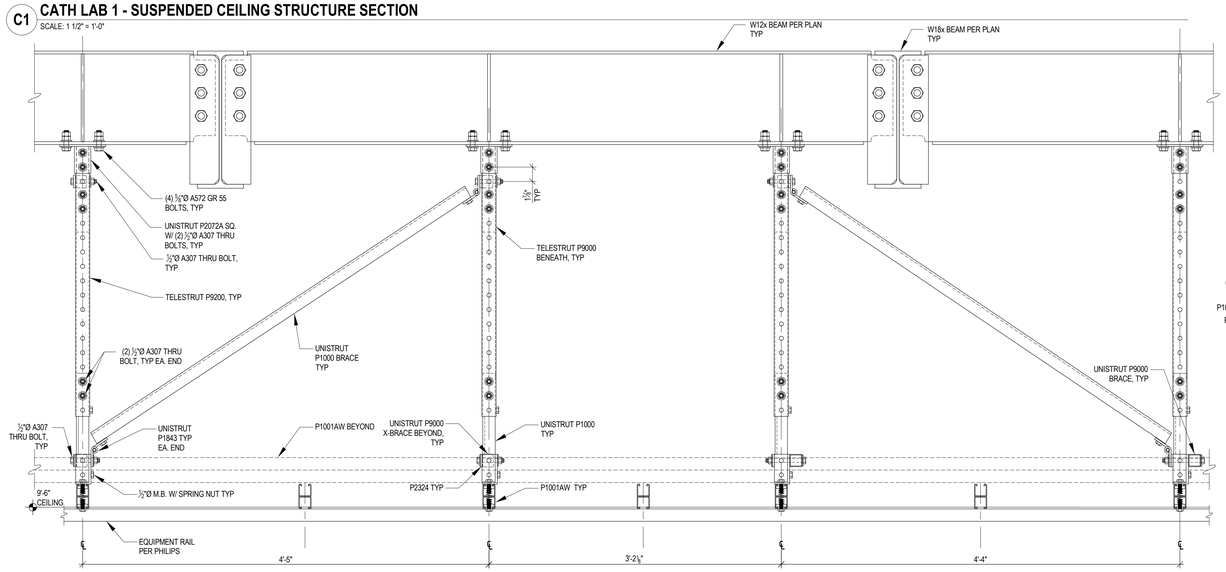
NOTE:
1. TORQUE 1/2": MB TO 50 FT-#'S.
2. (E) ROOF DECK NOT SHOWN FOR CLARITY.

D2 CATH LAB 1 - SUSPENDED CEILING STRUCTURE SECTION
SCALE: 1 1/2" = 1'-0"

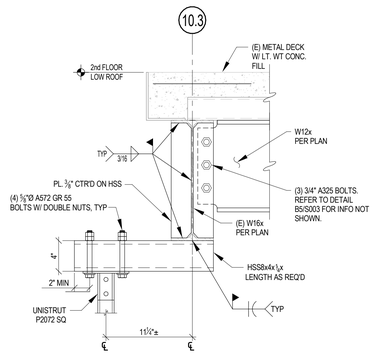


NOTE: (E) ROOF DECK NOT SHOWN FOR CLARITY.

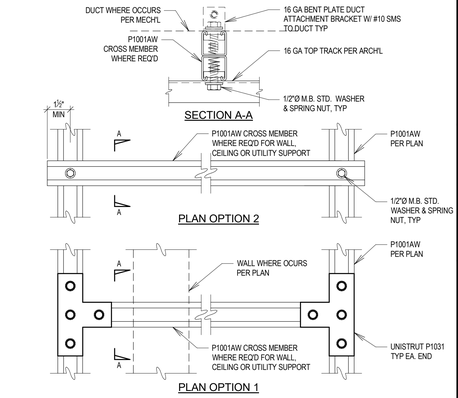
C1 CATH LAB 1 - SUSPENDED CEILING STRUCTURE SECTION
SCALE: 1 1/2" = 1'-0"



A1 CATH LAB 2 - SUSPENDED CEILING STRUCTURE SECTION
SCALE: 1 1/2" = 1'-0"

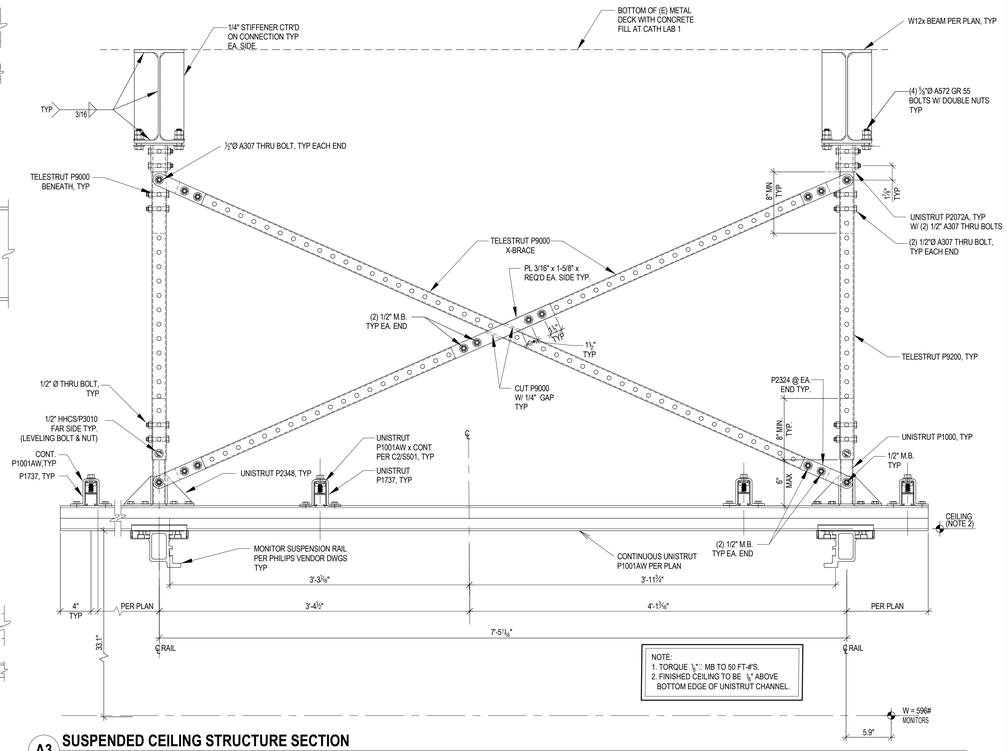


C3 BEAM SECTION
SCALE: 1 1/2" = 1'-0"



PLAN OPTION 1

C4 P1001 SUPPORT GRID CROSS MEMBER DETAIL
SCALE: 3" = 1'-0"



NOTE:
1. TORQUE ⅞": MB TO 50 FT-#'S.
2. FINISHED CEILING TO BE ⅛" ABOVE
BOTTOM EDGE OF UNISTRUT CHANNEL.

A3 SUSPENDED CEILING STRUCTURE SECTION
SCALE: 1 1/2" = 1'-0"

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PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

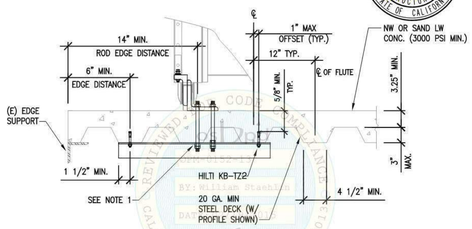
RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
DETAILS

SHEET NUMBER
S502

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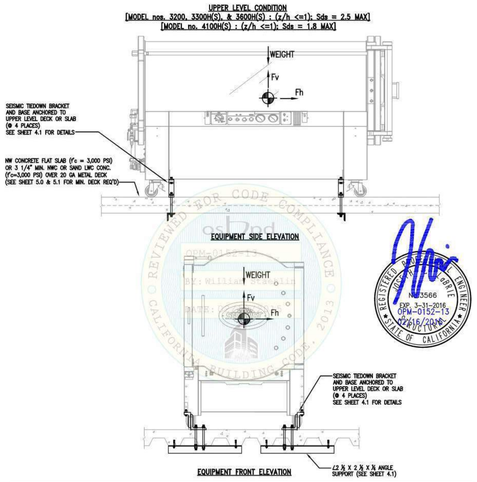
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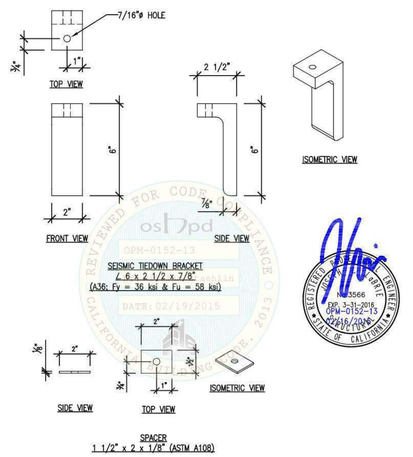
HILTI KB-TZ2(UNDERSIDE OF TYP. "W" DECK ANCHORAGE)

NOTE:
1. HEX NUT TOP & BOTTOM OF ANGLE (TYP.); WHERE NUT CANNOT BE PROVIDED AT TOP SIDE OF ANGLE, PROVIDE TAPPED HOLE THROUGH ANGLE OR DOUBLE NUTS BELOW ANGLE W/ TOP NUT WELDED TO UNDERSIDE OF ANGLE.

SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)	Scale: N.T.S.	JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: CONCRETE OVER METAL DECK REQUIREMENTS	DATE 02/16/15	PAGE 5.0



SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)	Scale: N.T.S.	JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: HYPERBARIC CHAMBER ELEVATION - UPPER LEVEL	DATE 02/16/15	PAGE 4.0



SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)	Scale: 3"=1'-0"	JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: SEISMIC TIEDOWN BRACKET & SPACER DETAIL	DATE 02/16/15	PAGE 2.0

TEST LOAD FOR HILTI KB-TZ2EXPANSION ANCHORS
(f'c = 3000 PSI MIN.) - INSTALLED TO N.W. CONCRETE SLAB & SAND L.W. CONCRETE AS OCCURING

BOLT SIZE	APPLICATION	MINIMUM EFFECTIVE EMBEDMENT (INS.)	MINIMUM ANCHOR SPACING (INS.)	MINIMUM EDGE DISTANCE (INS.)	DIRECT TENSION (LBS.)	INSTALLATION TORQUE (LBS.-IN)
5/8"	TOP OF SLAB/DECK	4"	3"	14"	2,837	720
1/2"	UNDERSIDE OF DECK	2"	6"	6"	1,190	480

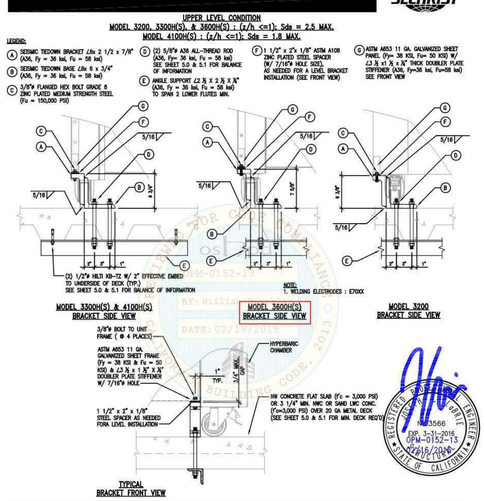
a.) WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE THE EXISTING REINFORCING BARS. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR.
b.) AFTER A MIN. OF (24) HRS. HAVE ELAPSED, ALL POST INSTALLED ANCHORS (LOADED IN EITHER PULL OUT OR SHEAR) SHALL BE TORQUED OR TENSION TESTED. WHEN POST-INSTALLED ANCHORS ARE USED FOR NON STRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE, 50% OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF THE ANCHORS IN EACH GROUP SHALL BE TESTED. IF THERE ARE ANY FAILURES, THE IMMEDIATELY ADJACENT BOLTS MUST THEN ALSO BE TESTED.
c.) THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:

HYDRAULIC RAM METHOD: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. FOR WEDGE AND SLEEVE TYPE ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE. FOR ADHESIVE ANCHORS, WHERE OTHER THAN BOND IS BEING TESTED, THE DEVICE SHALL NOT RESTRICT THE CONCRETE SHEAR CONE TYPE FAILURE MECHANISM FROM OCCURING
TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS:
WEDGE OR SLEEVE TYPE: ONE-HALF (1/2) TURN OF THE NUT ONE-QUARTER (1/4) TURN OF THE NUT FOR 3/8" SLEEVE ANCHOR ONLY.

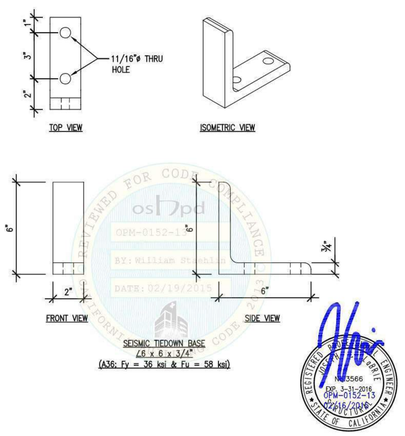
d.) OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR ALL ANCHOR TESTING.
e.) ALL TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE INSPECTOR OF RECORD AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY.

7.) BOLTS THROUGH CONCRETE ON METAL DECK:
A. BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUTS AFTER THE SNUG TIGHT (THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT) CONDITION IS ACHIEVED, UNLESS OTHERWISE NOTED.
B. THROUGH BOLT HOLES SHALL BE 1/16" LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16) FOR CONCRETE
C. THROUGH-BOLTS IN CONCRETE SHALL RECEIVE SPECIAL INSPECTION AND TESTING (THROUGH BOLTS WITH STEEL TO STEEL CONNECTION IN TENSION DO NOT REQUIRE TENSION TESTING) IN ACCORDANCE WITH REQUIREMENTS FOF POST INSTALLED ANCHORS.

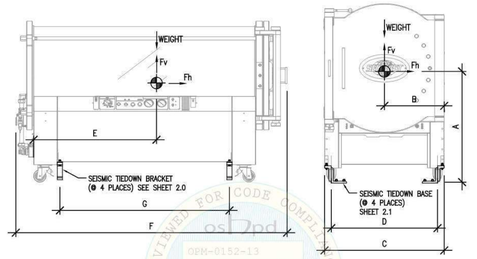
SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)		JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: GENERAL NOTES	DATE 02/16/15	PAGE GN-2



SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)	Scale: N.T.S.	JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: BRACKET ANCHORAGE DETAIL - UPPER LEVEL	DATE 02/16/15	PAGE 4.1



SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)	Scale: 3"=1'-0"	JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: SEISMIC TIEDOWN BASE DETAIL	DATE 02/16/15	PAGE 2.1



EQUIPMENT SIDE ELEVATION

EQUIPMENT FRONT ELEVATION

MODEL NO.	EQUIP. WEIGHT (LBS.)	MAX. PATIENT WEIGHT (LBS.)	A (INCHES.)	B (INCHES.)	C (INCHES.)	D (INCHES.)	E (INCHES.)	F (INCHES.)	G (INCHES.)
3200	1,982	500	35"	21.5"	43"	38"	47"	105.5"	68.75"
3300H(S)	2,030	500	36.8"	22.25"	44.5"	39.5"	48"	106"	66.25"
3600H(S)	2,220	700	36.8"	22.25"	44.5"	39.5"	48"	106"	66.25"
4100H(S)	3,500	700	43.25"	23.36"	46.75"	41.75"	46.5"	106"	64"

SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)	Scale: N.T.S.	JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: HYPERBARIC CHAMBER DIMENSIONS	DATE 02/16/15	PAGE 1.0

GENERAL NOTES

1.) THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2013 CALIFORNIA BUILDING CODE (CBC). THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2013 CALIFORNIA BUILDING CODE (CBC).

2.) SITE VERIFICATION IS REQUIRED. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE AREA(S) OF WORK PRIOR TO THE BEGINNING OF THE PROJECT. DO NOT SCALE THE DRAWINGS; ALL DIMENSIONS MUST BE VERIFIED IN THE FIELD. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED, IMMEDIATELY, IF ANY DISCREPANCIES ARE FOUND.

3.) DESIGN CRITERIA:

a.) SLAB ON GRADE (SUPPORTS & ATTACHMENTS FOR MODEL NOS. 3200, 3300H(S), 3600H(S) & 4100H(S))
Sds = 2.2 MAX.; I = 1.5 ; z/h = 0 (GROUND OR SLAB ON GRADE)
UPPER FLOOR (SUPPORTS & ATTACHMENTS FOR MODEL NOS. 3200, 3300H(S), & 3600H(S))
Sds = 2.5 MAX. ; I = 1.5 ; z/h <= 1 (UPPER FLOOR)
UPPER FLOOR (SUPPORT & ATTACHMENTS FOR MODEL NO. 4100H(S))
Sds = 1.8 MAX. ; I = 1.5 ; z/h <= 1 (UPPER FLOOR)

b.) PER ASCE 7-10 INCLUDING SUPPLEMENT NO. 1 & TABLE 13.6-1 :
Ω_p = 1 ; Rp = 1.5 ; Ω_s = 1.5 (APPLY Ω_s FACTOR FOR ANCHORAGE TO CONCRETE)

4.) CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM.

5.) STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL :
a.) CHECK THAT THE EXISTING/NEW STRUCTURE WILL BE ABLE TO SUPPORT THE MAXIMUM WEIGHTS/FORCES SHOWN IN ADDITION TO ANY OTHER LOADS TO THE STRUCTURE. PROVIDE STRENGTENING OF STRUCTURE AS REQUIRED.
b.) CHECK THAT THE FLOOR OR DECK ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. ALL MINIMUM EDGE DISTANCE AND SPACING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS GIVEN IN THE ICC REPORT FOR THE SPECIFIC ANCHORS USED ON THIS OPM. (SEE TABLE ON NEXT PAGE FOR ANCHOR MINIMUM SPACING & EDGE DISTANCE REQUIREMENTS)
c.) CHECK THAT THE INSTALLATION, SUPPORT AND ATTACHMENTS OF THE UNIT COMPLIES WITH THE 2013 CALIFORNIA BUILDING CODE AND WITH THE DETAILS SHOWN IN THIS PREAPPROVAL.
d.) VERIFY THAT THE ACTUAL EQUIPMENT'S MODEL NUMBER, OPERATING WEIGHT, CENTER OF GRAVITY (C.G.) LOCATION, ANCHOR LAYOUT, MATERIAL & ASTM GRADE OF THE EQUIPMENT IS THE SAME SHOWN ON THIS OPM PREAPPROVAL.
e.) VERIFY THAT THE PROJECT SPECIFIC Sds AND z/h VALUES RESULT IN SEISMIC FORCES DOES NOT EXCEED THE VALUES SHOWN ON THIS OPM.

6.) EXPANSION ANCHORS SHALL BE HILTI KB-TZ2ANCHORS (PER ICC-ESR-4266 DATED DEC. 2021) AND INSTALLED IN NORMAL WEIGHT CONCRETE & SAND LIGHT WEIGHT CONCRETE (AT UNDERSIDE OF DECK) WHERE OCCURS. CARBON STEEL FOR INDOOR APPLICATIONS. MINIMUM EMBEDMENT OF ALL BOLTS AND TEST LOADS (UNLESS NOTED OTHERWISE ON DETAIL) IS SHOWN ON THE NEXT PAGE:

SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)		JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: GENERAL NOTES	DATE 02/16/15	PAGE GN-1

A1 SEACHRIST - HYPERBARIC CHAMBER MODEL 3600 ANCHORAGE (OPM-0152-13)
SCALE: 12" = 1'-0"

Riverside University HEALTH SYSTEM
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CONSULTANT STAMP
REGISTERED PROFESSIONAL ENGINEER TRACY R. RICH RENEWAL 12/31/24 NO. 4831 STRUCTURAL STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	Issue Date

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP
REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
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Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

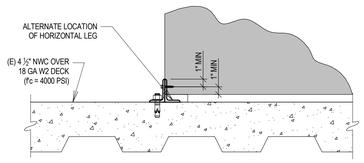
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CONSULTANT PROJ. NO. 047-10071-002

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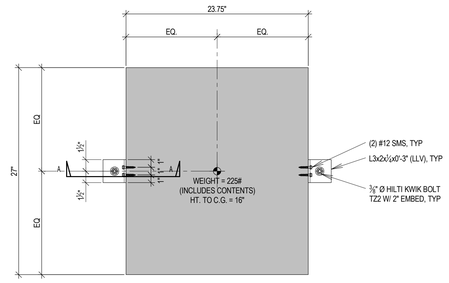
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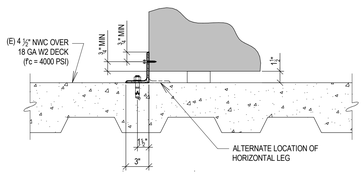
SECTION A-A



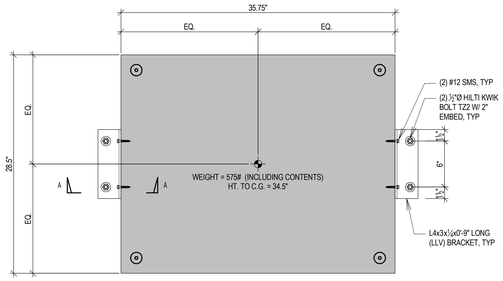
PLAN

D1 ANCHORAGE OF UNDER COUNTER REFRIGERATOR

SCALE: 1 1/2" = 1'-0"



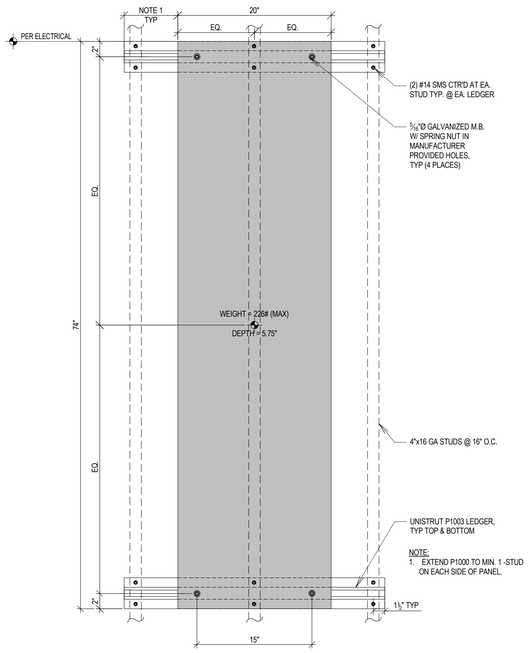
SECTION A-A



PLAN AT BASE

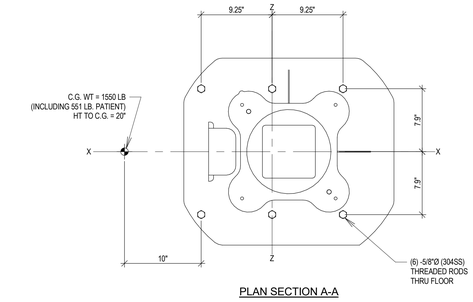
C1 ANCHORAGE OF REFRIGERATOR

SCALE: 1 1/2" = 1'-0"

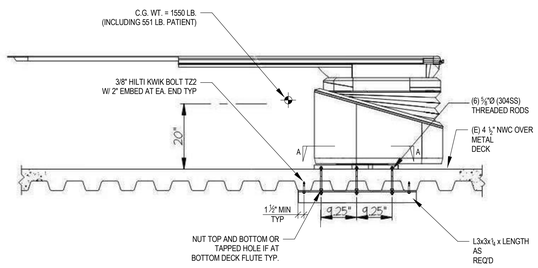


A1 SURFACE MOUNTED PANEL ANCHORAGE

SCALE: 1 1/2" = 1'-0"

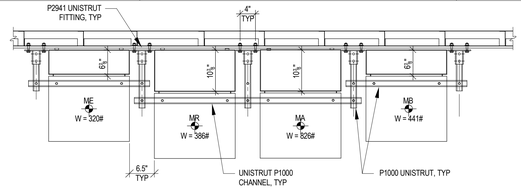


PLAN SECTION A-A

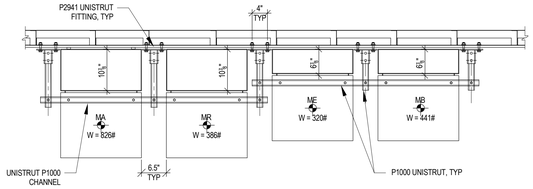


A2 AD7 WITH SURFACE MOUNTED FLOOR PLATE

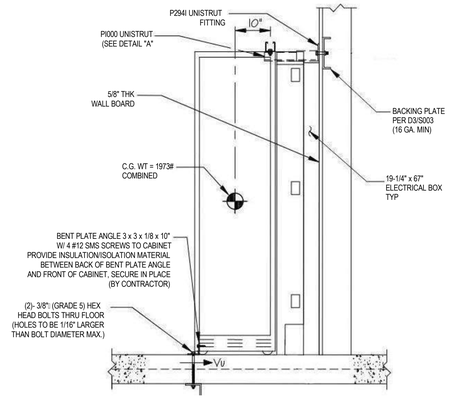
SCALE: 3/4" = 1'-0"



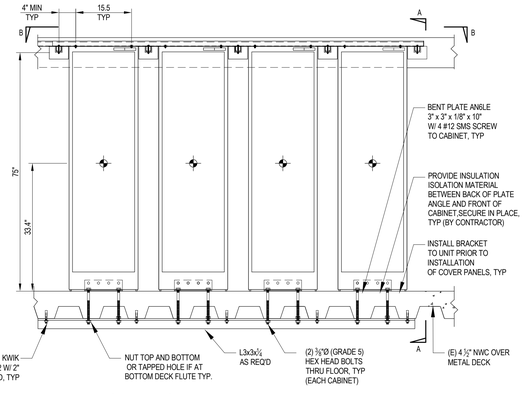
CATH LAB1 - PLAN B-B



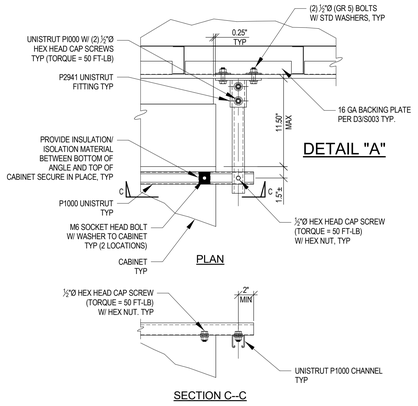
CATH LAB 2 - PLAN B-B



SECTION A-A



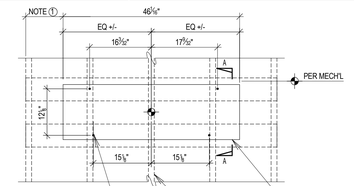
FRONT ELEVATION



SECTION C--C

A3 4 x 40E RACK CABINET ANCHORAGE

SCALE: 1 1/2" = 1'-0"

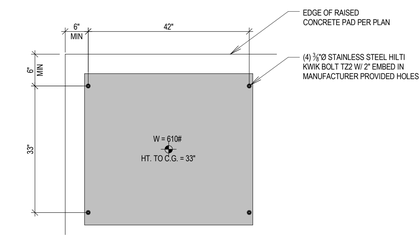


NOTE:
1. EXTEND BACKING MIN 1 STUD
BEYOND EQUIPMENT, TYP

SECTION A-A

D4 FAN COIL WALL MOUNT (UNITS VFRI-1.03 & 1.04)

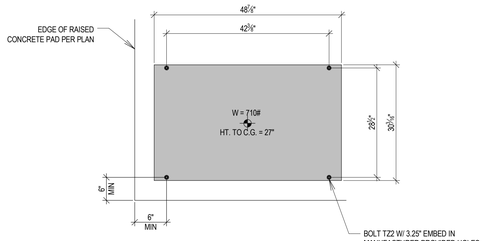
SCALE: 3/4" = 1'-0"



PLAN AT BASE

C4 HU-3.01 ANCHORAGE

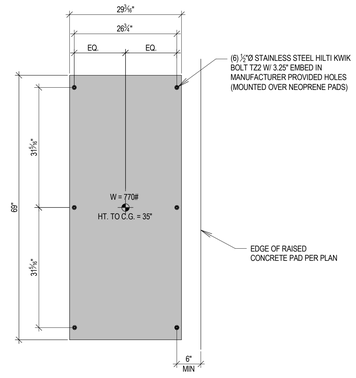
SCALE: 3/4" = 1'-0"



PLAN AT BASE

B4 VRFO-3.02 ANCHORAGE

SCALE: 3/4" = 1'-0"



PLAN AT BASE

A4 VRFO-3.01 ANCHORAGE

SCALE: 3/4" = 1'-0"

Riverside University HEALTH SYSTEM

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CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER
TRACY R. RICH
RENEWAL 12/31/24
NO. 4831
STRUCTURAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	MRKS
Draw	LL
Check	MR
Issue Date	Issue Date

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

ANCHORAGE DETAILS

SHEET NUMBER

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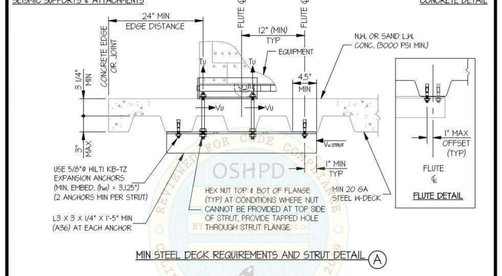
EASE — EQUIPMENT **ANCHORAGE** & SEISMIC ENGINEERING — www.EquipmentAnchorage.com

BD

SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 10 OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — CONCRETE DETAIL



MIN STEEL DECK REQUIREMENTS AND STRUT DETAIL (A)

REVIEWED FOR CODE COMPLIANCE — OSHPD — OPM-0207 — BY: Jeffrey Kikumoto — DATE: 05/06/2020 — CALIFORNIA BUILDING CODE 2019

JONATHAN ROBERSON — REGISTERED STRUCTURAL ENGINEER — No. 4197 — EXP. 6-30-2020 — 4/29/20 — STATE OF CALIFORNIA

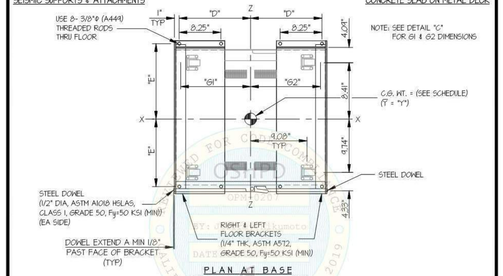
EASE — EQUIPMENT **ANCHORAGE** & SEISMIC ENGINEERING — www.EquipmentAnchorage.com

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SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 8 OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — CONCRETE SLAB ON METAL DECK



PLAN AT BASE
(SYSTEM EG SINGLE UNIT SHOWN)

REVIEWED FOR CODE COMPLIANCE — OSHPD — OPM-0207 — BY: Jeffrey Kikumoto — DATE: 05/06/2020 — CALIFORNIA BUILDING CODE 2019

JONATHAN ROBERSON — REGISTERED STRUCTURAL ENGINEER — No. 4197 — EXP. 6-30-2020 — 4/29/20 — STATE OF CALIFORNIA

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SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 2 OF 12 SHEETS

10. **EXPANSION ANCHORS:**

A. ATTACHMENT IS TO BE MADE WITH THE ANCHORS LISTED BELOW AND INSTALLED AS DESCRIBED IN THE CORRESPONDING ICC REPORT.

Anchor Diameter	Concrete Type	Min. f'c (psi)	Anchor Type	ICC Report No.	Min. Embed.	Min. Spacing	Min. Edge Dist.	Min. Conc. Thickness	Torque Test	Direct Tension Test
5/8"	Sand Light Weight	3000	Hilti Kwik Bolt TZ	ESR-1917	3.125"	12"	24"	See Detail "A"	60 FT-LB	1219
3/8"	Normal Weight	3000	Hilti Kwik Bolt TZ	ESR-1917	2"	8"	12"	4"	25 FT-LB	1515 lb

B. THIS PREAPPROVAL ALLOWS FOR UP TO A MAXIMUM OF 2 ADJACENT CONCRETE SLAB EDGES, 12" AWAY MINIMUM (i.e. - CORNER). SEE ADJACENT DETAIL FOR ADDITIONAL MINIMUM ALLOWABLE CONCRETE EDGE DISTANCES.

C. TESTING AND SPECIAL INSPECTION OF EXPANSION ANCHORS SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY, EMPLOYED BY THE FACILITY OWNER PER CBC 1704A & 1910A.5 AND CAC 7-149. ALL REPORTS SHALL BE SENT TO THE INSPECTOR OF RECORD, OWNER AND THE ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE.

(i) AFTER AT LEAST 24 HOURS HAVE ELAPSED SINCE INSTALLATION, DIRECT PULL TENSION TEST OR TORQUE TEST AT LEAST 50% OF THE ANCHORS.

(ii) ACCEPTANCE CRITERIA:

- DIRECT TENSION TEST: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE TEST LOAD. A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER BECOMES LOOSE.
- TORQUE TEST: THE APPLICABLE TORQUE MUST BE ACHIEVED WITHIN THE FOLLOWING LIMITS: WEDGE TYPE : 1/2 TURN OF THE NUT

(iii) IF ANY ANCHOR FAILS, TEST ALL ANCHORS.

D. AVOID DAMAGING EXISTING STEEL REINFORCING IN CONCRETE SLAB WHEN INSTALLING CONCRETE EXPANSION ANCHORS.

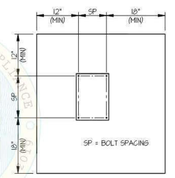
E. PROVIDE FOR FULL THREAD ENGAGEMENT OF NUT & WASHER.

11. BOLTS THROUGH CONCRETE ON METAL DECK

A. BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUTS AFTER THE SNUG TIGHT (THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT) CONDITION IS ACHIEVED, UNLESS OTHERWISE NOTED.

B. THROUGH BOLT HOLES SHALL BE 1/16" LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16) FOR CONCRETE.

C. THROUGH-BOLTS IN CONCRETE SHALL RECEIVE SPECIAL INSPECTION AND TESTING (THROUGH BOLTS WITH STEEL TO STEEL CONNECTION IN TENSION DO NOT REQUIRE TENSION TESTING) IN ACCORDANCE WITH REQUIREMENTS FOR POST-INSTALLED ANCHORS.



TYPICAL CONCRETE EDGE DETAIL

JONATHAN ROBERSON — REGISTERED STRUCTURAL ENGINEER — No. 4197 — EXP. 6-30-2020 — 4/29/20 — STATE OF CALIFORNIA

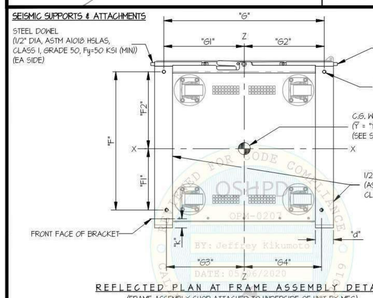
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BD

SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 12 OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — BASE DETAIL



REFLECTED PLAN AT FRAME ASSEMBLY DETAIL (C)
(FRAME ASSEMBLY SHOP ATTACHED TO UNDERSIDE OF UNIT BY MFG)

MODEL	CAP SCREW DIA (in)	"F1" (in)	"F1" (in)	"F2" (in)	"G" (in)	"G1" (in)	"G2" (in)	"J" (in)	"G3" (in)	"G4" (in)	"K" (in)
CONSOLE UNIT	1/4	21.26	10.08	11.18	26.22	13.82	14.4	2.25	14.15	14.73	0.81
MED STATION	3/8	22.25	10.45	11.8	29.42	9.45	9.97	2.25	9.45	9.97	0.68
PYXIS STATION SINGLE UNIT	1/2	22.98	10.20	12.78	26.66	13.38	13.28	3.00	12.94	12.84	0.68
SYSTEM 50 SINGLE UNIT	1/2	22.98	10.20	12.78	26.66	13.38	13.28	3.00	12.94	12.84	0.68
SYSTEM EG SINGLE UNIT	1/2	22.98	10.20	12.78	26.66	13.38	13.28	3.00	12.94	12.84	0.68

NOTE: THE SEISMIC ANCHORING KIT CONSISTS OF TWO FLOOR BRACKETS, A RIGHT FLOOR BRACKET AND A LEFT FLOOR BRACKET (SEE DETAIL "B") AND FRAME ASSEMBLY (SHOWN ABOVE) (TYP)

JONATHAN ROBERSON — REGISTERED STRUCTURAL ENGINEER — No. 4197 — EXP. 6-30-2020 — 4/29/20 — STATE OF CALIFORNIA

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SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 9 OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — CONCRETE SLAB ON METAL DECK

MODEL	WEIGHT (LB)	"A" (in)	"Y" (in)	"B" (in)	"D" (in)	"E" (in)	* T/U (lb)	* V/U (lb)
CONSOLE UNIT	360	48.50	24.25	30.00	14.375	11.75	780	287
MED STATION	1050	46.75	23.38	22.75	10.75	13.25	2469	941
PYXIS STATION SINGLE UNIT	1460	78.06	34.03	30.30	14.53	13.25	4547	1179
SYSTEM 50 SINGLE UNIT	1460	78.06	34.03	30.30	14.53	13.25	4547	1179
SYSTEM EG SINGLE UNIT	1460	78.06	34.03	30.30	14.53	13.25	4547	1179

* VALUES DO NOT INCLUDE Ω0

NOTE: VALUES ARE FOR z/h ≤ 1

REVIEWED FOR CODE COMPLIANCE — OSHPD — OPM-0207 — BY: Jeffrey Kikumoto — DATE: 05/06/2020 — CALIFORNIA BUILDING CODE 2019

JONATHAN ROBERSON — REGISTERED STRUCTURAL ENGINEER — No. 4197 — EXP. 6-30-2020 — 4/29/20 — STATE OF CALIFORNIA

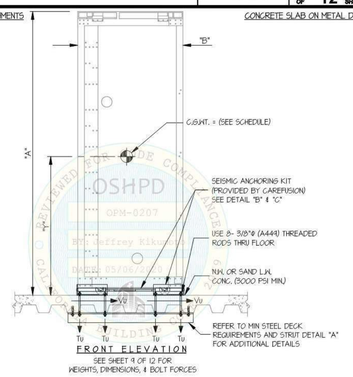
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SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 7 OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — CONCRETE SLAB ON METAL DECK



FRONT ELEVATION
SEE SHEET 9 OF 12 FOR
WEIGHTS, DIMENSIONS, & BOLT FORCES

NOTES:

1. **FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16.**
   STRENGTH DESIGN IS USED. (SDS = 2.20, ap = 1.0, Ip = 1.5, Rp = 1.5, Ω0 = 1.5, z/h ≤ 1)
   HORIZONTAL FORCE (En) = 2.64 Wp
   HORIZONTAL FORCE (Emh) = 3.96 Wp (FOR CONCRETE ANCHORAGE)
   VERTICAL FORCE (Ev) = 0.44 Wp
2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
3. STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.
4. SEE GENERAL NOTES: SHEETS 1 AND 2.

REVIEWED FOR CODE COMPLIANCE — OSHPD — OPM-0207 — BY: Jeffrey Kikumoto — DATE: 05/06/2020 — CALIFORNIA BUILDING CODE 2019

JONATHAN ROBERSON — REGISTERED STRUCTURAL ENGINEER — No. 4197 — EXP. 6-30-2020 — 4/29/20 — STATE OF CALIFORNIA

EASE — EQUIPMENT **ANCHORAGE** & SEISMIC ENGINEERING

5877 Pine Ave, Ste. 210
Chino Hills, CA. 91709
Phn: (909) 606-7622

Office of Statewide Health Planning and Development

PREAPPROVAL OF MANUFACTURER'S CERTIFICATION

OPM-0207

THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE

MANUFACTURER: **BD** — Sheet: 1 of 12

EQUIPMENT NAME: **SINGLE STORAGE CABINETS** — Date: 4/29/20

GENERAL NOTES

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2019 CBC. THE DEMANDS (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2019 CBC
2. THIS DOCUMENT MAY ONLY BE USED WITH THE EXPRESS WRITTEN CONSENT OF THE MANUFACTURER LISTED ABOVE FOR THE SPECIFIC PROJECT SITE AND INSTALLATION LOCATION. THIS DOCUMENT IS INVALID WITHOUT SUCH CONSENT.
3. THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE WHERE Sds IS NOT GREATER THAN 1.10 & 2.20. SEE DETAIL FOR APPLICABILITY
4. FORCES PER ASCE 7-16 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3,
   WHERE Sds = 1.10, ap = 1.0, Ip = 1.5, Rp = 1.5, z/h = 0 AT CONCRETE SLAB. SEE FOLLOWING SHEETS FOR Ω0
   WHERE Sds = 2.20, ap = 1.0, Ip = 1.5, Rp = 1.5, z/h = 0 AT CONCRETE SLAB & z/h ≤ 1 AT CONCRETE SLAB ON METAL DECK.
   SEE FOLLOWING SHEETS FOR Ω0
5. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
6. ALL DESIGN FORCES SHOWN ON THE DRAWINGS ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.
7. CONCRETE SLAB ON METAL DECK DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION IN THE BUILDING. (i.e. z/h ≤ 1)
8. CONCRETE SLAB DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION AT OR BELOW GRADE. (i.e. z/h = 0)
9. **RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD OF THE BUILDING**

A. PROVIDE SUPPORTING STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN IN ADDITION TO ALL OTHER LOADS.

B. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2019 CBC AND WITH THE DETAILS, MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN ON THE PREAPPROVAL DOCUMENTS.

C. VERIFY THAT PROJECT SPECIFIC VALUES OF Sds & z/h RESULT IN SEISMIC FORCES (Eh, Ev) THAT DO NOT EXCEED THE VALUES ON THE DETAILS.

D. VERIFY THAT THE CONCRETE SLAB TO WHICH THE EQUIPMENT IS ANCHORED MEETS THE REQUIREMENTS OF THE APPLICABLE ICC ESR, AND THIS OPM.

E. VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPENINGS (SEE TYPICAL DETAIL ON SHEET 2).

F. VERIFY THAT ALL NEW OR EXISTING ANCHORS ARE AN ADEQUATE DISTANCE FROM THE UNIT ATTACHMENTS AND CHECK FOR INTERACTION WHERE OTHER ANCHORS ARE WITHIN 18" OR 6hef FROM THIS UNIT'S ANCHORS.

JONATHAN ROBERSON — REGISTERED STRUCTURAL ENGINEER — No. 4197 — EXP. 6-30-2020 — 4/29/20 — STATE OF CALIFORNIA

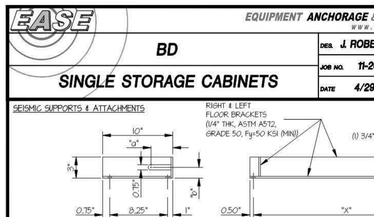
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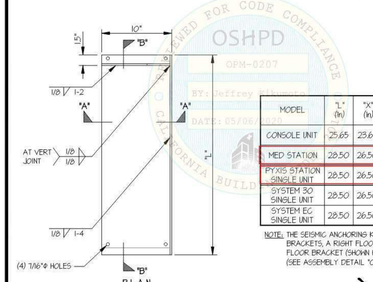
SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 11 OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — BASE DETAIL



SECTION A-A — SECTION B-B



PLAN
(RIGHT FLOOR BRACKET SHOWN)

MODEL	"L" (in)	"X" (in)	"a" (in)	"b" (in)	"c" (in)
CONSOLE UNIT	25.65	23.65	3.12	1.785	1.50
MED STATION	28.50	26.50	3.12	1.425	1.13
PYXIS STATION SINGLE UNIT	28.50	26.50	3.50	1.885	1.56
SYSTEM 50 SINGLE UNIT	28.50	26.50	3.50	1.885	1.56
SYSTEM EG SINGLE UNIT	28.50	26.50	3.50	1.885	1.56

NOTE: THE SEISMIC ANCHORING KIT CONSISTS OF TWO FLOOR BRACKETS, A RIGHT FLOOR BRACKET AND A LEFT FLOOR BRACKET (SHOWN HERE) AND FRAME ASSEMBLY (SEE ASSEMBLY DETAIL "C") (TYP)

BRACKET DETAIL (B)

JONATHAN ROBERSON — REGISTERED STRUCTURAL ENGINEER — No. 4197 — EXP. 6-30-2020 — 4/29/20 — STATE OF CALIFORNIA

A1 **PYXIS MEDICATION CABINET ANCHORAGE (OPM-0207)**
SCALE: 12" = 1'-0"

7/2/2024 9:45:36 AM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-STRU.rvt

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECTECT STAMP

CONSULTANT

ABS Consulting — 420 Exchange, Suite 200, Irvine, CA 92602 USA, Phone: (714) 734-4242

CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER — TRACY R. RICH — RENEWAL 12/31/24 — NO. 48311 — STRUCTURAL — STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	MSR
Draw	LL
Check	MSR
Issue Date	Issue Date

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO. FM08430011869

CONSULTANT PROJ. NO. 047-10071-002

SHEET NAME

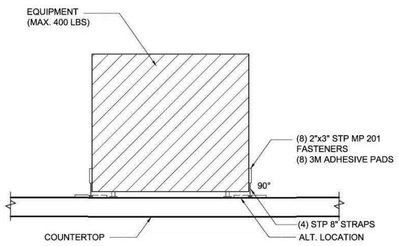
ANCHORAGE DETAILS

SHEET NUMBER

S505

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SAFE-T-PROOF
EARTHQUAKE FASTENING SYSTEM



LARGE TABLE TOP EQUIPMENT FASTENERS - ELEVATION (MAX. 400 LBS)

3
LANDSCAPE VIEW

NOTE: THIS DETAIL IS TO VERIFY FASTENER LOCATIONS. ENGINEER OF RECORD SHOULD DESIGN AND APPROVE ANCHORGE BASED ON SITE SPECIFIC CONDITIONS AND APPLICALBE CODES. VERIFY ADEQUATE ATTACHMENT OF TOP OF WALL TO STRUCTURE ABOVE.



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PROFESSIONALLY INSTALLED BY
SAFE-T-PROOF
1-800-377-8888

Part Description:
(8) 2"X3" STP FASTENERS
(8) 3M ADHESIVE PADS
(4) STP 8" STRAPS
(8) ALCOHOL WIPE PADS

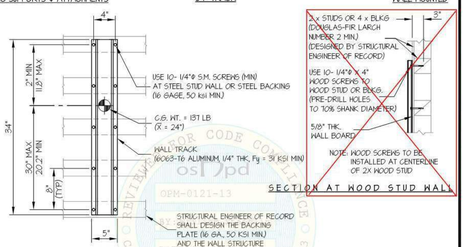
Part Name: LARGE TABLETOP EQUIPMENT FASTENERS (MAX. 400 LBS)
Part Number: STP-201-03
Color: WHITE, PUTTY, BROWN, OR BLACK
Date:

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ERGOTRON
STYLEVIEW SIT-STAND COMBO ARM WITH WORKSURFACE

		SHEET
DES. J. ROBERSON		4
JOB NO. 11-1359		OF 5 SHEETS
DATE 7/24/14		

SEISMIC SUPPORTS & ATTACHMENTS — 34" TRACK — WALL MOUNTED



ELEVATION AT WALL TRACK
(STEEL STUD CONDITION)

SECTION AT HOOD STUD WALL



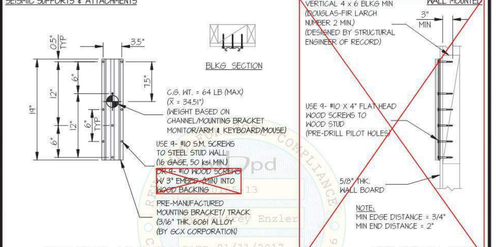
08/19/2014 OPM-0121-13: Reviewed for Code Compliance by William Staehlin Page 6 of 7

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GCX CORPORATION
GCX WALL MOUNT with M & VHM ARMS

		SHEET
DES. J. ROBERSON		8
JOB NO. 11-1441		OF 9 SHEETS
DATE 11/23/16		

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



ELEVATION AT 18" TRACK

HOOD STUD WALL SECTION

Tu = 129 LB/SCREW (MAX)
Vu = 31 LB/SCREW (MAX)



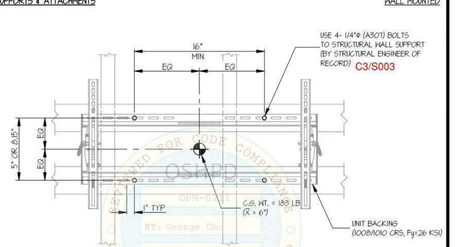
01/31/2017 OPM-0165-13: Reviewed for Code Compliance by Jeffrey Enzler Page 10 of 11

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PEERLESS INDUSTRIES, INC.
UNIVERSAL FLAT AND TILT WALL MOUNT FOR FLAT TV WEIGHT UP TO 175 LB

		SHEET
DES. J. ROBERSON		4
JOB NO. 11-2035		OF 8 SHEETS
DATE 4/2/21		

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED

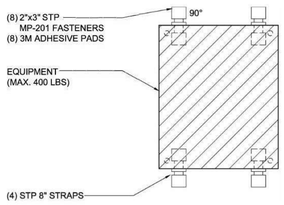


ELEVATION AT WALL PLATE
(FLAT MOUNT)



4/2/2021 OPM-0211: Reviewed for Code Compliance by George Chu 6 of 10

SAFE-T-PROOF
EARTHQUAKE FASTENING SYSTEM



LARGE TABLETOP EQUIPMENT FASTENERS - PLAN (MAX. 400 LBS)

3
PLAN VIEW

NOTE: THIS DETAIL IS TO VERIFY FASTENER LOCATIONS. ENGINEER OF RECORD SHOULD DESIGN AND APPROVE ANCHORGE BASED ON SITE SPECIFIC CONDITIONS AND APPLICALBE CODES. VERIFY ADEQUATE ATTACHMENT OF TOP OF WALL TO STRUCTURE ABOVE.



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PROFESSIONALLY INSTALLED BY
SAFE-T-PROOF
1-800-377-8888

Part Description:
(8) 2"X3" STP FASTENERS
(8) 3M ADHESIVE PADS
(4) STP 8" STRAPS
(8) ALCOHOL WIPE PADS

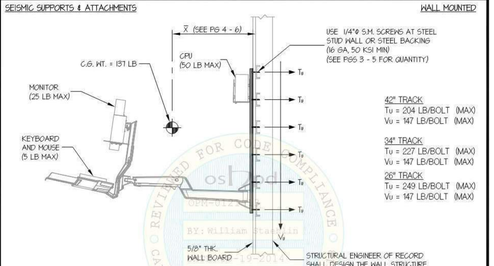
Part Name: LARGE TABLETOP EQUIPMENT FASTENERS (MAX. 400 LBS)
Part Number: STP-201-03
Color: WHITE, PUTTY, BROWN, OR BLACK
Date:

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ERGOTRON
STYLEVIEW SIT-STAND COMBO ARM WITH WORKSURFACE

		SHEET
DES. J. ROBERSON		2
JOB NO. 11-1359		OF 5 SHEETS
DATE 7/24/14		

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



STEEL STUD WALL SECTION

NOTES:
1. FORCES ARE DETERMINED PER 2013 CALIFORNIA BUILDING CODE AND ASCE 7-10
STRENGTH DESIGN IS USED. (Sds = 2.2, ap = 2.5, Ip = 1.5, Rp = 2.5, z/h ≤ 1)
HORIZONTAL FORCE (Eh) = 3.96 Wp
VERTICAL FORCE (Ev) = 0.44 Wp
2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
3. STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.



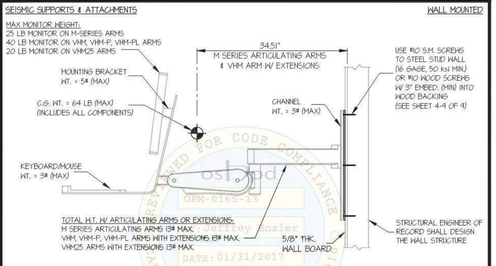
08/19/2014 OPM-0121-13: Reviewed for Code Compliance by William Staehlin Page 4 of 7

EASE — EQUIPMENT **ANCHORAGE** & SEISMIC ENGINEERING
www.EquipmentAnchorage.com

GCX CORPORATION
GCX WALL MOUNT with M & VHM ARMS

		SHEET
DES. J. ROBERSON		3
JOB NO. 11-1441		OF 9 SHEETS
DATE 11/23/16		

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



NOTE: ALL CALCULATIONS ARE BASE ON THIS CONFIGURATION

STEEL STUD WALL SECTION
(13" TRACK SHOWN)



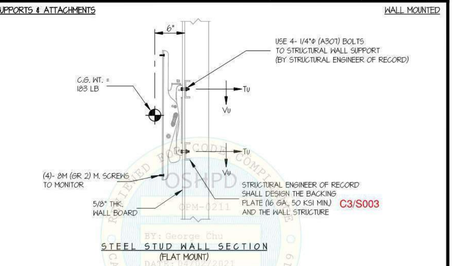
01/31/2017 OPM-0165-13: Reviewed for Code Compliance by Jeffrey Enzler Page 5 of 11

EASE — EQUIPMENT **ANCHORAGE** & SEISMIC ENGINEERING
www.EquipmentAnchorage.com

PEERLESS INDUSTRIES, INC.
UNIVERSAL FLAT AND TILT WALL MOUNT FOR FLAT TV WEIGHT UP TO 175 LB

		SHEET
DES. J. ROBERSON		3
JOB NO. 11-2035		OF 8 SHEETS
DATE 4/2/21		

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



STEEL STUD WALL SECTION
(FLAT MOUNT)

NOTES:
1. FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16
STRENGTH DESIGN IS USED. (Sds = 2.00, ap = 1.0, Ip = 1.5, Rp = 1.5, Ωo = 2.0, z/h ≤ 1)
HORIZONTAL FORCE (Eh) = 2.40 Wp
HORIZONTAL FORCE (Emh) = 4.80 Wp (FOR CONCRETE ANCHORAGE)
VERTICAL FORCE (Ev) = 0.40 Wp
2. CENTER OF GRAVITY (C.G) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
3. STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.
4. MODEL NUMBERS: SF640, SF650, SF660, ST640, ST650 & ST660.
5. SEE GENERAL NOTES: SHEETS 1 AND 2.



4/2/2021 OPM-0211: Reviewed for Code Compliance by George Chu 5 of 10

A1 TABLE EQUIPMENT RESTARAINT (MAX 400 LBS)
SCALE: 12" = 1'-0"

A2 ERGOTRON STYLEVIEW SIT-STAND COMBO ARM MOUNT (OPM-0121-13)
SCALE: 12" = 1'-0"

A3 GCX WALL MOUNT (OPM-0165-13)
SCALE: 12" = 1'-0"

A4 PEERLESS INDUSTRIES-UNIVERSAL FLAT & TILT WALL MOUNT TV (OPM-0211)
SCALE: 12" = 1'-0"

7/2/2024 9:45:37 AM Autodesk Docs://047-10071-002_RUHS-TIO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-STRU.rvt

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY
550 SOUTH HOPE STREET, SUITE 2700
LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECTECT STAMP

CONSULTANT

ABS Consulting
420 Exchange, Suite 200
Irvine, CA 92602 U.S.A.
Phone: (714) 734-4242

CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER
TRACY R. RICH
RENEWAL 12/31/24
NO. 4831
STRUCTURAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	Issue Date

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

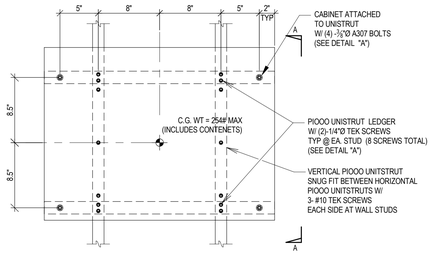
PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

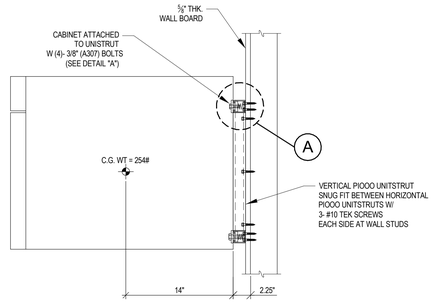
SHEET NAME
ANCHORAGE DETAILS

SHEET NUMBER
S506

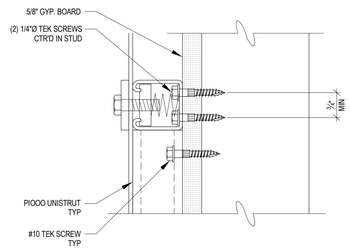
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FRONT ELEVATION



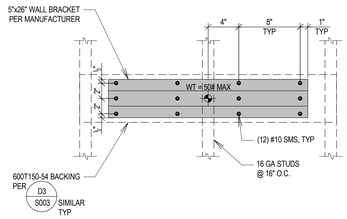
SECTION A-A

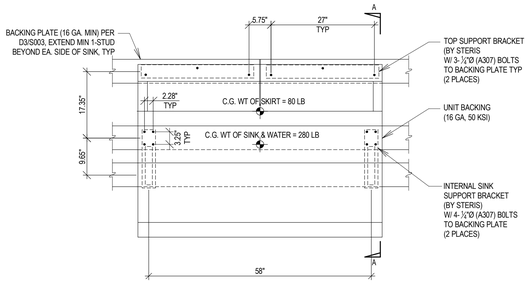


DETAIL "A"

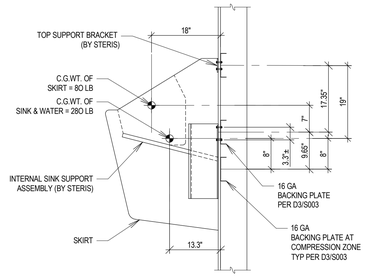
D1 AMSCO WARMNG CABINET WALL MOUNT DETAIL

SCALE: 1 1/2" = 1'-0"





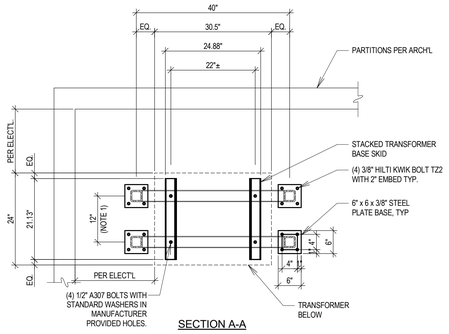
FRONT ELEVATION



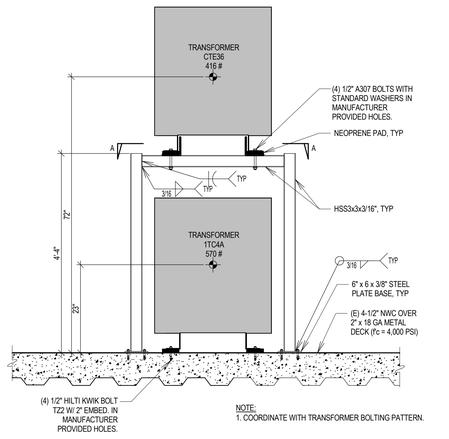
SECTION A-A

C1 ERGOTRON NEO FLEX DUAL BRACKET WALL MOUNT DETAIL

SCALE: 1 1/2" = 1'-0"



SECTION A-A



NOTE:
1. COORDINATE WITH TRANSFORMER BOLTING PATTERN.

A1 TRANSFORMER RACK DETAIL

SCALE: 3/4" = 1'-0"

C2 STERIS FLEXMATIC SCRUB SINK WALL MOUNT DETAIL

SCALE: 3/4" = 1'-0"

EASE — EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING — www.EquipmentAnchorage.com

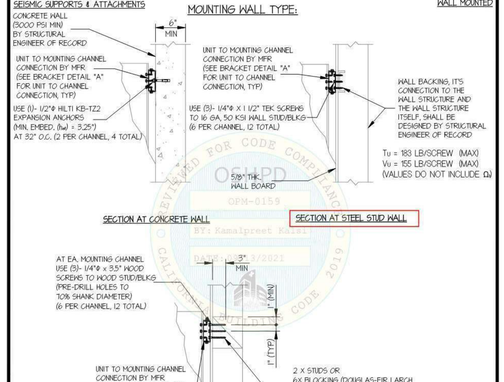
IPA, LLC

scrubEx MV-Dispenser/Receiver or scrubEx SV-Dispenser/Receiver

DES. J. ROBERSON | JOB NO. 11-2114 | DATE 9/9/21 | SHEET 4 OF 9 SHEETS

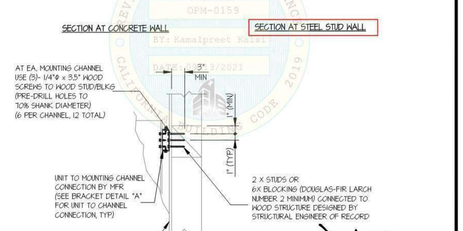
SEISMIC SUPPORTS & ATTACHMENTS

MOUNTING WALL TYPE: WALL MOUNTED



SECTION AT CONCRETE WALL

SECTION AT STEEL STUD WALL



SECTION AT HOOD STUD WALL

OSHPD OPM-0159 REVIEWED FOR CODE COMPLIANCE BY Kamalpreet Kalsi DATE 9/13/2021 CALIFORNIA BUILDING CODE 2019



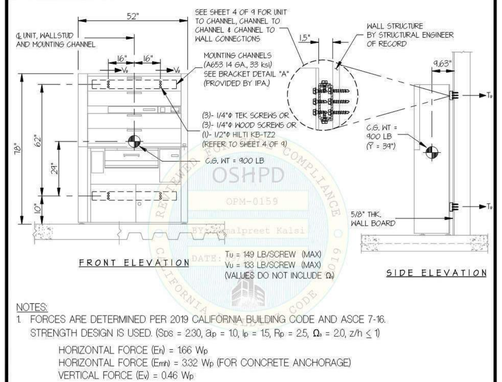
09/13/2021 OPM-0159; Reviewed for Code Compliance by Kamalpreet Kalsi 6 of 11

EASE — EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING — www.EquipmentAnchorage.com

IPA, LLC

scrubEx MV-Dispenser/Receiver or scrubEx SV-Dispenser/Receiver

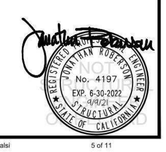
DES. J. ROBERSON | JOB NO. 11-2114 | DATE 9/9/21 | SHEET 3 OF 9 SHEETS



FRONT ELEVATION

SIDE ELEVATION

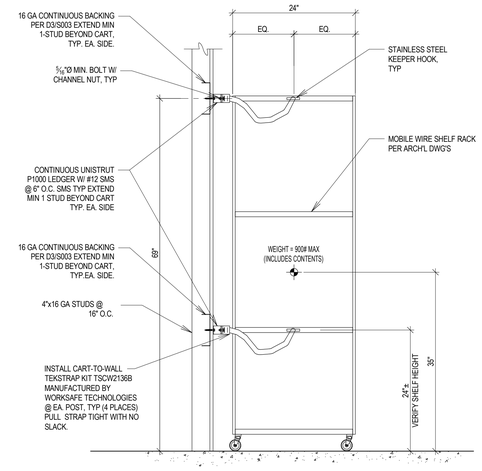
NOTES:
1. FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16. STRENGTH DESIGN IS USED. (Sds = 2.30, ap = 1.0, Ip = 1.5, Rp = 2.5, Ωo = 2.0, z/h ≤ 1)
   HORIZONTAL FORCE (Eh) = 166 Wp
   HORIZONTAL FORCE (Emh) = 332 Wp (FOR CONCRETE ANCHORAGE)
   VERTICAL FORCE (Ev) = 0.46 Wp
2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
3. STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.
4. SEE GENERAL NOTES: SHEET 1 AND 2.



09/13/2021 OPM-0159; Reviewed for Code Compliance by Kamalpreet Kalsi 5 of 11

C4 MOBILE SHELVING CART RESTRAINT

SCALE: 1" = 1'-0"



SIDE ELEVATION

EASE — EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING

5877 Pine Ave, Ste. 210
Chino Hills, CA. 91709
Phn: (909) 606-7622

Office of Statewide Health Planning and Development

PREAPPROVAL OF MANUFACTURER'S CERTIFICATION

OPM-0159

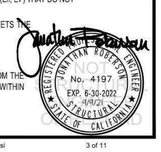
THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE

MANUFACTURER: IPA, LLC | Sheet: 1 of 9

EQUIPMENT NAME: scrubEx MV-Dispenser/Receiver or scrubEx SV-Dispenser/Receiver | Date: 9/9/21

GENERAL NOTES

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2019 CBC. THE DEMANDS (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2019 CBC
2. THIS DOCUMENT MAY ONLY BE USED WITH THE EXPRESS WRITTEN CONSENT OF THE MANUFACTURER LISTED ABOVE FOR THE SPECIFIC PROJECT SITE AND INSTALLATION LOCATION. THIS DOCUMENT IS INVALID WITHOUT SUCH CONSENT.
3. THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE WHERE Sds IS NOT GREATER THAN 2.30.
4. FORCES PER ASCE 7-16 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3.
   WHERE Sds = 2.20, ap = 1.0, Ip = 1.5, Rp = 2.5, z/h = 0 AT CONCRETE SLAB. SEE FOLLOWING SHEETS FOR Ω.
   WHERE Sds = 2.30, ap = 1.0, Ip = 1.5, Rp = 2.5, z/h ≤ 1 AT CONCRETE SLAB ON METAL DECK. SEE FOLLOWING SHEETS FOR Ω.
5. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
6. ALL DESIGN FORCES SHOWN ON THE DRAWINGS ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.
7. SHEET METAL SCREWS SHALL BE TEKS SCREWS BY ITW BUILDEX (ICC ESR-1976).
8. CONCRETE SLAB ON METAL DECK DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION IN THE BUILDING. (i.e. z/h ≤ 1)
9. CONCRETE SLAB DETAIL VALID FOR DEMANDS SHOWN AT OR BELOW GRADE. (i.e. z/h = 0)
10. **RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD OF THE BUILDING**
    A. PROVIDE SUPPORTING STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN IN ADDITION TO ALL OTHER LOADS.
    B. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2019 CBC AND WITH THE DETAILS, MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN ON THE PREAPPROVAL DOCUMENTS.
    C. VERIFY THAT PROJECT SPECIFIC VALUES OF Sds & z/h RESULT IN SEISMIC FORCES (Eh, Ev) THAT DO NOT EXCEED THE VALUES ON THE DETAILS.
    D. VERIFY THAT THE CONCRETE SLAB TO WHICH THE EQUIPMENT IS ANCHORED MEETS THE REQUIREMENTS OF THE APPLICABLE ICC ESR AND THIS OPM.
    E. VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPENINGS (SEE TYPICAL DETAIL ON SHEET 2).
    F. VERIFY THAT ALL NEW OR EXISTING ANCHORS ARE AN ADEQUATE DISTANCE FROM THE UNIT ATTACHMENTS AND CHECK FOR INTERACTION WHERE OTHER ANCHORS ARE WITHIN 18" OR 6hef FROM THIS UNIT'S ANCHORS.



09/13/2021 OPM-0159; Reviewed for Code Compliance by Kamalpreet Kalsi 3 of 11

A2 SRUBEX SV DISPENCER / RECEIVER ANCHORAGE (OPM-0159)

SCALE: 12" = 1'-0"

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECTECT STAMP

CONSULTANT

ABS Consulting
420 Exchange, Suite 200
Irvine, CA 92602 U.S.A.
Phone: (714) 734-4242

CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER
TRACY R. RICH
RENEWAL 12/31/24
NO. 4831
STRUCTURAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	MSR
Draw	LL
Check	MSR
Issue Date	Issue Date

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

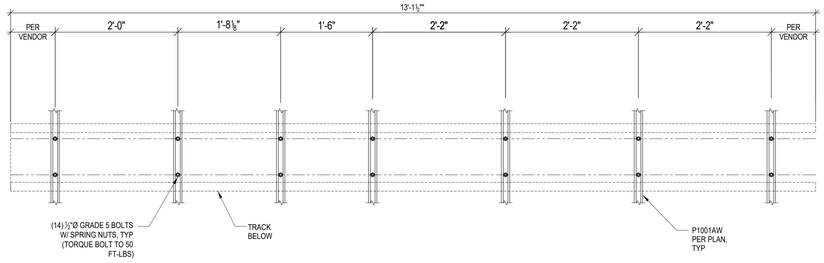
ANCHORAGE DETAILS

SHEET NUMBER

S507

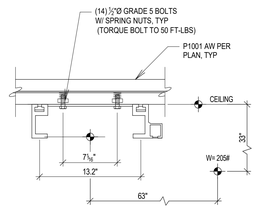
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7/2/2024 9:45:38 AM Autodesk Docs://047-10071-002_RUHS-TCI-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-STRU.rvt

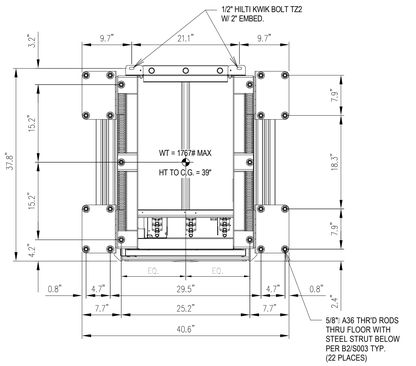


D2 MAVIG 4M CEILING TRACK W/ RATIATION & LIGHT SUPPORT

SCALE: 1" = 1'-0"

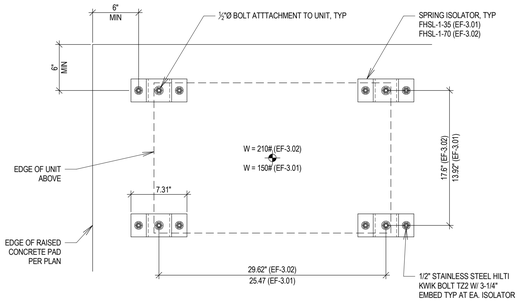


SECTION A-A



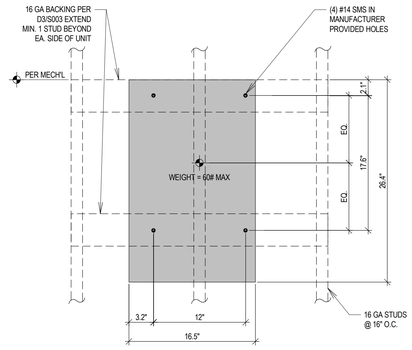
D4 UPS CABINET ANCHORAGE

SCALE: 1" = 1'-0"



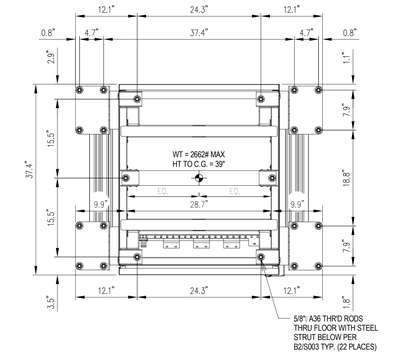
C2 EXHAUST FANS EF-3.01 & EF-3.02 ANCHORAGE

SCALE: 1 1/2" = 1'-0"



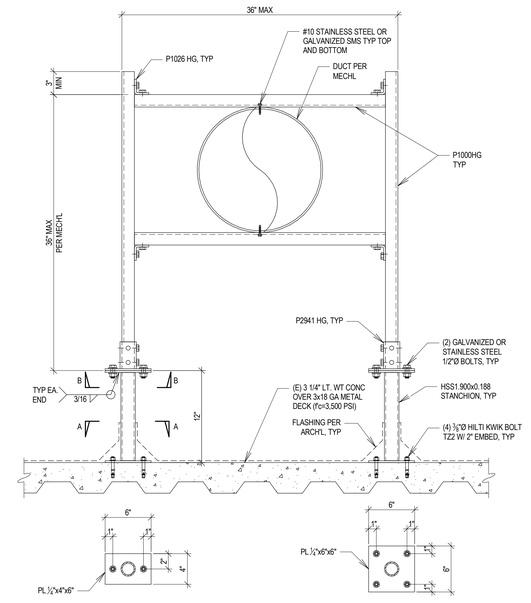
C3 INDOOR HUMIDIFIER HU-1.01, HU-1.02 & HU-1.03 WALL-MOUNTED DETAIL

SCALE: NTS



C4 BATTERY CABINET ANCHORAGE

SCALE: 1" = 1'-0"



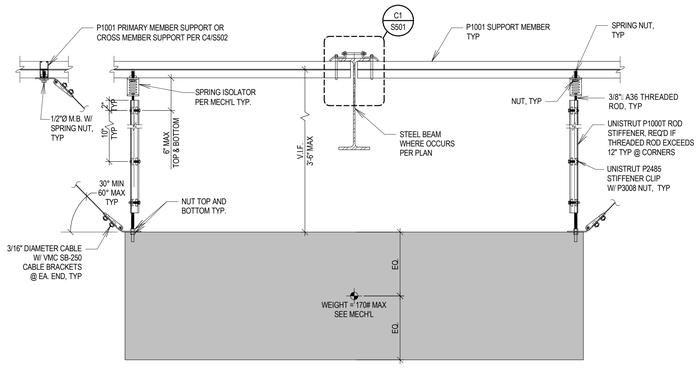
SECTION B-B

SECTION A-A

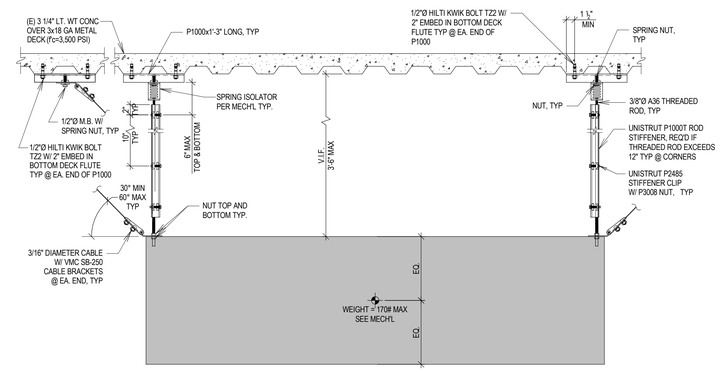
NOTE: ALL EXPOSED STEEL TO BE GALVANIZED.

A2 DUCT SUPPORT FRAME DETAIL

SCALE: 1 1/2" = 1'-0"



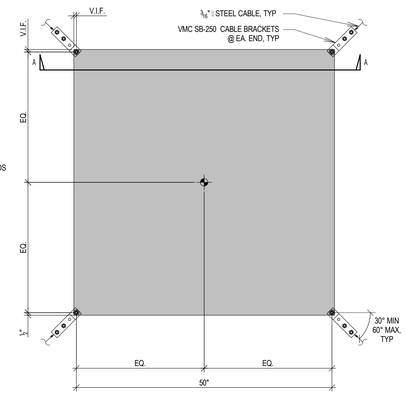
CATH LAB 2 - SECTION A-A



CATH LAB 1 - SECTION A-A

A3 SUSPENDED VFRI 1.01 & 1.02 ANCHORAGE DETAIL

SCALE: 1" = 1'-0"



PLAN

NOTE:
1. REFER TO MECHANICAL DRAWINGS FOR MOUNTING LOCATIONS.

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

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LOS ANGELES, CALIFORNIA 90071
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ARCHITECTECT STAMP

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REGISTERED PROFESSIONAL ENGINEER TRACY R. RICH RENEWAL 12/31/24 NO. 4831 STRUCTURAL STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
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Issue Date	Issue Date

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

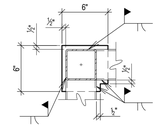
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SHEET NUMBER

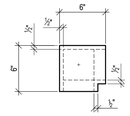
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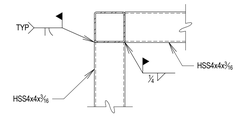
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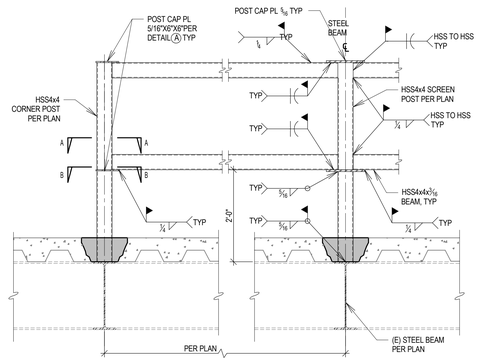
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DETAIL A



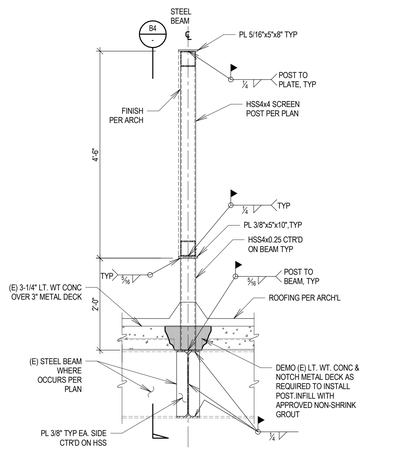
SECTION A-A



NOTE: STEEL TO BE GALVANIZED.

B4 SCREEN WALL SECTION

SCALE: 3/4" = 1'-0"



NOTE: STEEL TO BE GALVANIZED.

A4 ROOF SCREEN WALL POST SECTION

SCALE: 3/4" = 1'-0"

Riverside University HEALTH SYSTEM

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RENEWAL 12/31/24
NO. 4831
STRUCTURAL
STATE OF CALIFORNIA

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FM08430011869	047-10071-002

SHEET NAME

SECTIONS AND DETAILS

SHEET NUMBER

S509

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PHASE 1 DEMO
(SEE AE 151)

PHASE 1 DEMO
(SEE AE 151)

PHASE 1 ACCESS
TO NEURO DEPT

VOID

CORRIDOR E1024
CORRIDOR E1026
ELEC. ROOM E1013
ELEV. P4
ELEV. P3
ELEV. P1
ELEV. P2
(E) COMM. RM E1014
ELEV. LOBBY E1027
ELEC. ROOM E1015
STAIR E
JAN E1016
DIRECTOR E1036
CORRIDOR E1022
WOMEN E1019
MEN E1017
STOR. E1034
OUTPATIENT ADMITTING E1018
PHYSICAL THERAPY E1047
TREATMENT ROOM E1042
TECHS E1037
PASSAGE E1033
OCCUPATIONAL THERAPY E1038
TOIL. E1039
RECEPTION E1032
(E) DUMB-WAITER TO BE REMOVED
PASSAGE E1041
CORRIDOR E1040
DIR. PHYSICAL THERAPY E1044
EXAM E1052
COT / WAITING AREA E1054
LAB PREP AREA E1053
PHLEBOTOMY E1058
TOIL. E1043
TOIL. E1056
TOIL. E1057
HYDRO ROOM E1048
NEURO READING E1073
CARDIOPUL. READING E1072
EMG E1070
NEUROLOGY RECORDS E1069
EEG E1067
STORE-KEEPER E1116
CARDIOPULMONARY STRESS LAB E1066
MOVABLE DRUG STORAGE E114
CONTROLLED DRUGS E1113
E1134
E.K.G. / HOLTER ROOM E1065
CHEMO E1112
ECHOCARDIOGRAPHY E1064
IV E1111
PULMONARY FUNCTION E1063
STAFF TOIL E1062
SUPPLIES E1061
RECEPTION E1060
RELOCATE EXISTING P-TUBE STATION
UNIT DOSE COMPUTER E1110

PHASE 1 - SCOPE OF WORK

PHASE 2 - SCOPE OF WORK

A1 **PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 1 - DEMO**
SCALE: 1/8" = 1'-0"

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SHEET NOTES

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KEY PLAN

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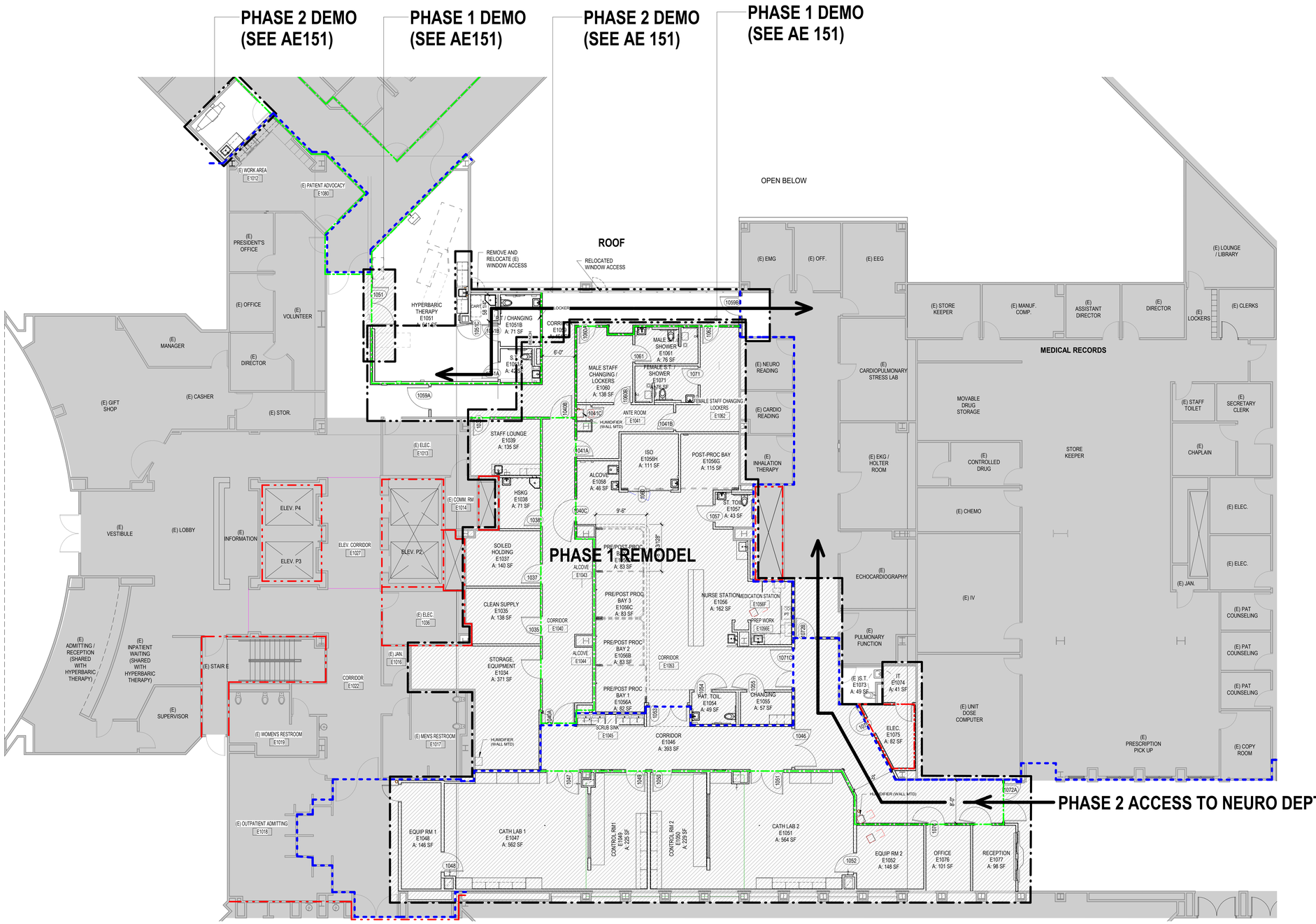
PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
PHASING PLAN - LEVEL 1 - DEMO - PHASE 1 (not used)

SHEET NUMBER
AD101

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A1 **PARTIAL FLOOR PLAN - LEVEL 1 - PHASING PLAN**
SCALE: 1/8" = 1'-0"

PHASE 1 - SCOPE OF WORK

PHASE 2 - SCOPE OF WORK

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CONSULTANT

CONSULTANT STAMP

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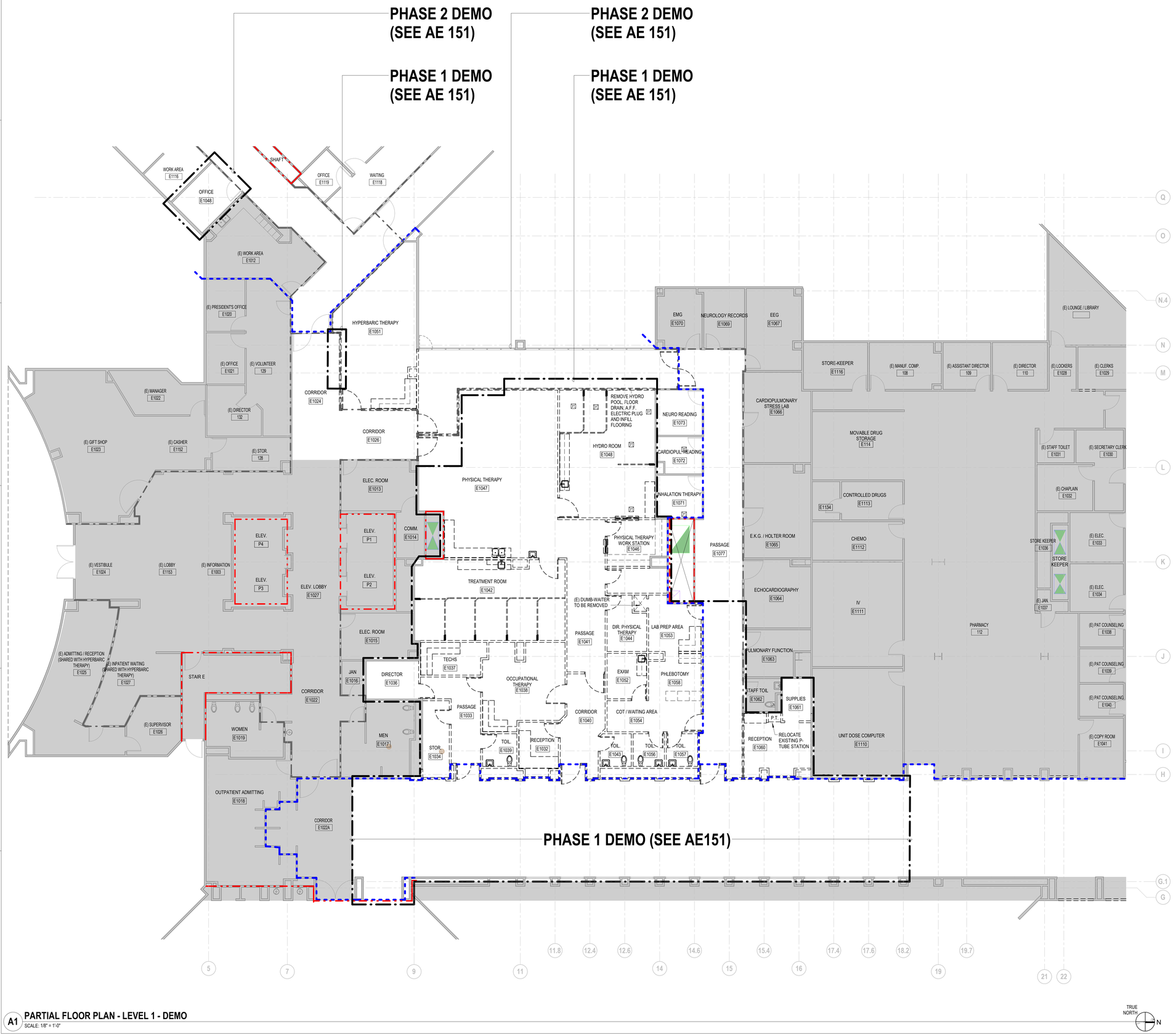
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PHASING PLAN - LEVEL 1 - DEMO - PHASE 2 (not used)

SHEET NUMBER

AD102

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SHEET NOTES - DEMOLITION

1. DEMOLITION NOTES APPLY TO ALL DRAWING SHEETS.
2. REMOVE EXISTING FINISHES, ADHESIVES OR OTHER MATERIALS THAT WILL CONFLICT WITH NEW FINISHES SCHEDULED IN EXISTING OR NEWLY REMODELED SPACES. REMOVE OR MODIFY PARTITION, CEILNG, BASES AND FLOORING FINISH SUBSTRATES TO ACCOMODATE NEW FINISHES AS SCHEDULES
3. REMOVE EXISTING PARTITIONS, DOORS, FRAMES, SOFFITS, MILLWORK, FIXTURES, ETC. ON THE DEMOLITION PLAN SHOWN WITH DASHED LINES. TURN SALVAGEABLE ITEMS OVER TO OWNER AT A LOCATION OF THE OWNER'S CHOOSING.
4. REMOVE AND SALVAGE EXISTING EQUIPMENT AND WALL MOUNTED ACCESSORIES FOR RELOCATION BY OWNER.
5. REMOVE GENERAL, MECHANICAL AND ELECTRICAL MATERIAL NOT NECESSARILY SHOWN, BUT REQUIRED TO BE REMOVED TO COMPLETE WORK.
6. CUTTING AND PATCHING REQUIRED FOR NEW MECHANICAL AND ELECTRICAL WORK IN EXISTING SPACES SHALL BE BY RESPECTIVE CONTRACTORS.
7. CONTRACTOR TO VERIFY WITH OWNER THAT HAZARDOUS MATERIAL SURVEY HAS BEEN COMPLETED FOR MATERIALS TO BE REMOVED/DISTURBED.
8. THE CONTRACTOR SHALL VERIFY EXISTIN FINISHES AND CONDITION BEFORE CONSTRUCTION BEGINS.
9. CONTRACTOR SHALL COORDINATE DEMOLITION WORK PHASING AND SEQUENCING WITH OWNER PRIOR TO START OF CONSTRUCTION.
10. ERECT DUST-PROOF PARTITONS AS REQUIRED BY OWNER AND FIRE MARSHALL TO PROTECT ADJACENT AREA DURING CONSTRUCIOTN.
11. MAINTAIN REQUIRED EXISTS AND MEANS OF EGRESS DURING CONSTRUCTION.
12. PROTECT MECHANICAL AND ELECTRIAL SERVICES AS REQUIRED TO REMAIN IN OPERATION.
13. REMOVE CEILING SYSTEMS AS REQUIRED TO ACCODDOMATE MECHANICAL AND ELECTRICAL WORK. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR APPROXIMATE LOCATIONS. SALVAGE TILES AND GRID FOR REINSTALLATION WHEN COMPETE UNLESS NOTED OTHERWISE.
14. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR SCOPE AND EXTENT OF MECHANICAL AND ELECTRICAL WORK.
15. DURING THE DEMOLITION PROCESS THERE MAY BE INSTANCES WHERE THE REMOVAL OR ABANDONMENT OF A FIXTURE, DUCT, CONDUIT OR OTHER PIECE OF EQUIPMENT MAY LEAVE AN OPENING IN A REQUIRED FIRE RESISTIVE ASSEMBLY. AS PARET OF THE DEMOKITION AND REMODELING PROCESS A FIRE-RESISTIVE "MEMBER" OR "THROUGH" PENETRATION (AND/OR OPEN JOINT) RESULTING FORM SUCH DEMOLITION WORK SHALL BE FIRESTOPPED OR SEALED IN ACCORDANCE WITH CBC FOR THE NECESSARY RATING PROTECTION. PROVISIONS FOR REQUIRED FIRESTOP CONDITIONS SHALL BE INCLUDED AS PART OF THIS SECTION.
16. PATCH "EXISTING TO REMIAN" BUILDING COMPONENTS IF DAMAGED DURING DEMOLITION. MATCH AJDACENT MATERIALS AND FINISHES.
17. COORDINATE WITH THE OWNER FOR THE STORAGE AND RELOCATION REQUIREMENTS OF EXISTING AND SALVAGED ITEMS.
18. VERIFY EXISTING SPRINKLERS SYSTEM WITH SPRINKLER CONTRACTOR PRIOR TO DEMOLITION. SPRINKLER CONTRACTOR TO MODIFY AND MAINTAIN SYSTEM CODE REQUIREMENTS THROUGHOUT THE PROJECT.
19. CONTRACTOR SHALL REMOVE/MODIFY EXISTING GYPSUM BOARD AND ACT CEILINGS AS NECESSARY FOR NEW CEILING LAYOUT AND MECHAICAL DUCTWORK. SEE CEILING PLAN FOR NEW CEILING LAYOUT.
20. CONTRACTOR SHALL REMOVE OWNER'S EXISTING WALL MOUNTED ITEMS AND TURN OVER TO OVER'S STOCK IN DEMOLITION AREAS.
21. CONTRACTOR TO EVALUATE MOISTURE MITIGATION AT SLAB AFTER FLOORING DEMOLITION. VERIFY FLOORING FINISHES INSTALLATION AND WARRANTY REQUIREMENTS FROM MANUFACTURER.
22. USE AND PATHWAY OF TEMPORARY CONSTRUCTION WALLS AND TEMP DUST BARRIERS SHALL MEET THE REQUIREMENTS OF THE 2022 CFC, SECTION 3305.9 AND COMPLY WITH THE HOSPITAL INFECTIOUS CONTROL REQUIREMENTS. "TEMPORARY DUST BARRIER" MATERIAL SHALL SATISFY ONE OF THE FOLLOWING: 1. NONCOMBUSTIBLE MATERIALS. 2. MATERIALS THAT EXHIBIT A FLAME SPREAD INDEX NOT EXCEEDING 25 WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723. 3. MATERIALS EXHIBITING A PEAK HEAT RELEASE RATE NOT EXCEEDING 300 KW/M2 WHEN TESTED IN ACCORDANCE WITH ASTM E1354 AT AN INCIDENT HEAT FLUX OF 50 KW/M2 IN THE HORIZONTAL ORIENTATION ON SPECIMENS AT THE THICKNESS INTENDED FOR USE. PLEASE NOTE: IF THE MATERIAL IS TO COMPLY WITH ITEM #2 IDENTIFIED ABOVE, PLEASE BE SURE THE MATERIAL HAS A CLASS A FLAME SPREAD AND/OR DOES NOT EXCEED A FLAME SPREAD INDEX OF 25.

KEY NOTES - DEMO

LEGEND

- REMOVE WALL
- REMOVE DOOR
- REMOVE AND SALVAGE ALL WATER CLOSETS AND LAVATORIES
- AREA NOT IN SCOPE OF WORK
- AREA IN SCOPE BUT NOT IN PHASE
- 2 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 90 MINUTES.
- 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- SMOKE PARTITION PER CBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- PHASING 1 OUTLINE
- PHASING 2 OUTLINE
- TEMPORARY CONSTRUCTION BARRIER, 1 HR FIRE PARTITION W/ 20 MIN PROTECTED OPENINGS. SEE DETAIL A1/AE511

TRUE NORTH

A1 **PARTIAL FLOOR PLAN - LEVEL 1 - DEMO**
SCALE: 1/8" = 1'-0"

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Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

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CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

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1	PLAN CHECK	10/10/2023
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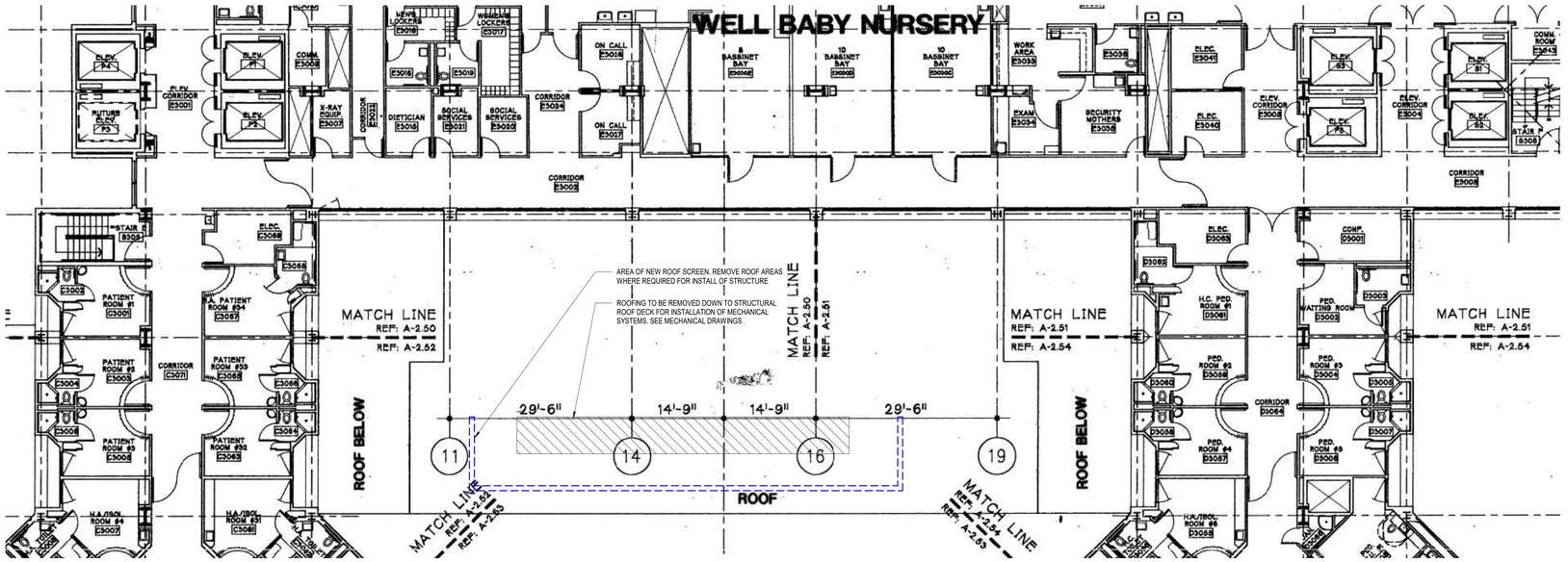
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PARTIAL FLOOR PLAN - LEVEL 1 - DEMO

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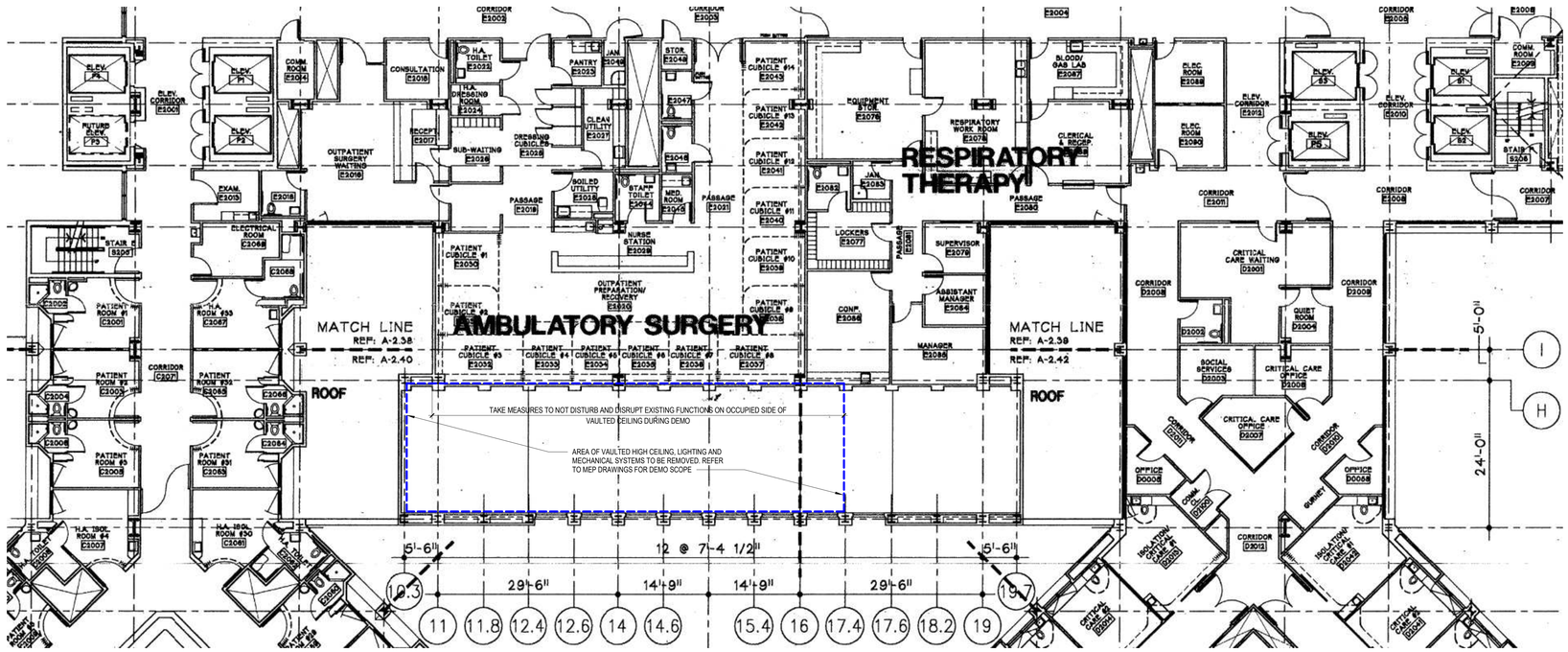
AD111

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D1 EXISTING PARTIAL FLOOR PLAN - LEVEL 3

SCALE: NTS



A1 EXISTING PARTIAL FLOOR PLAN - LEVEL 2

SCALE: NTS

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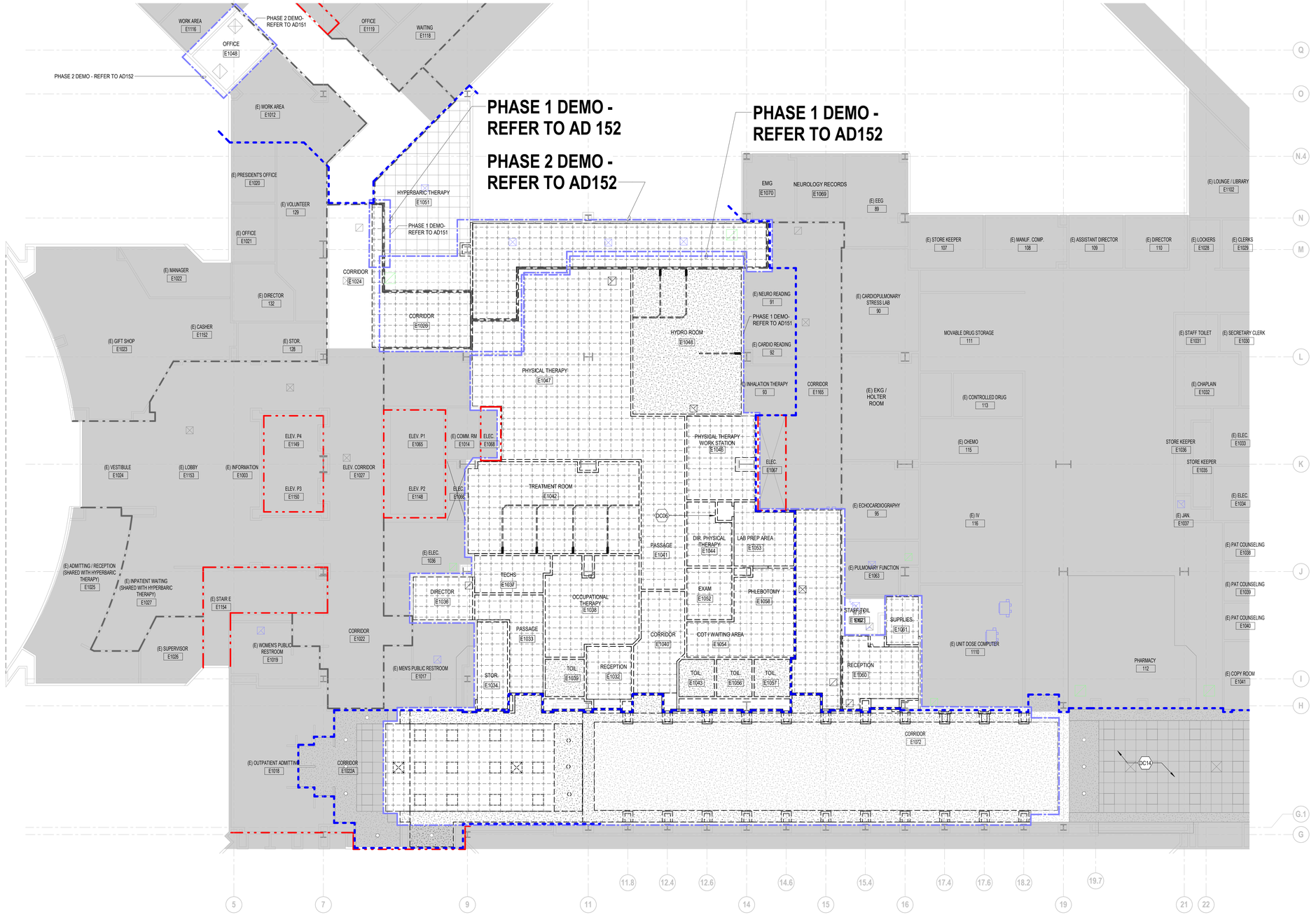
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PARTIAL FLOOR PLAN - LEVEL 2 & 3 - DEMO

SHEET NUMBER

AD112

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A1 PARTIAL RELECTED CEILING PLAN - LEVEL 1 - DEMO

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SHEET NOTES

KEY NOTES - CEILING PLAN

DC06 REMOVE EXISTING DUMBWAITER.
DC14 EXISTING CEILING TO REMAIN, PROTECT IN PLACE

LEGEND

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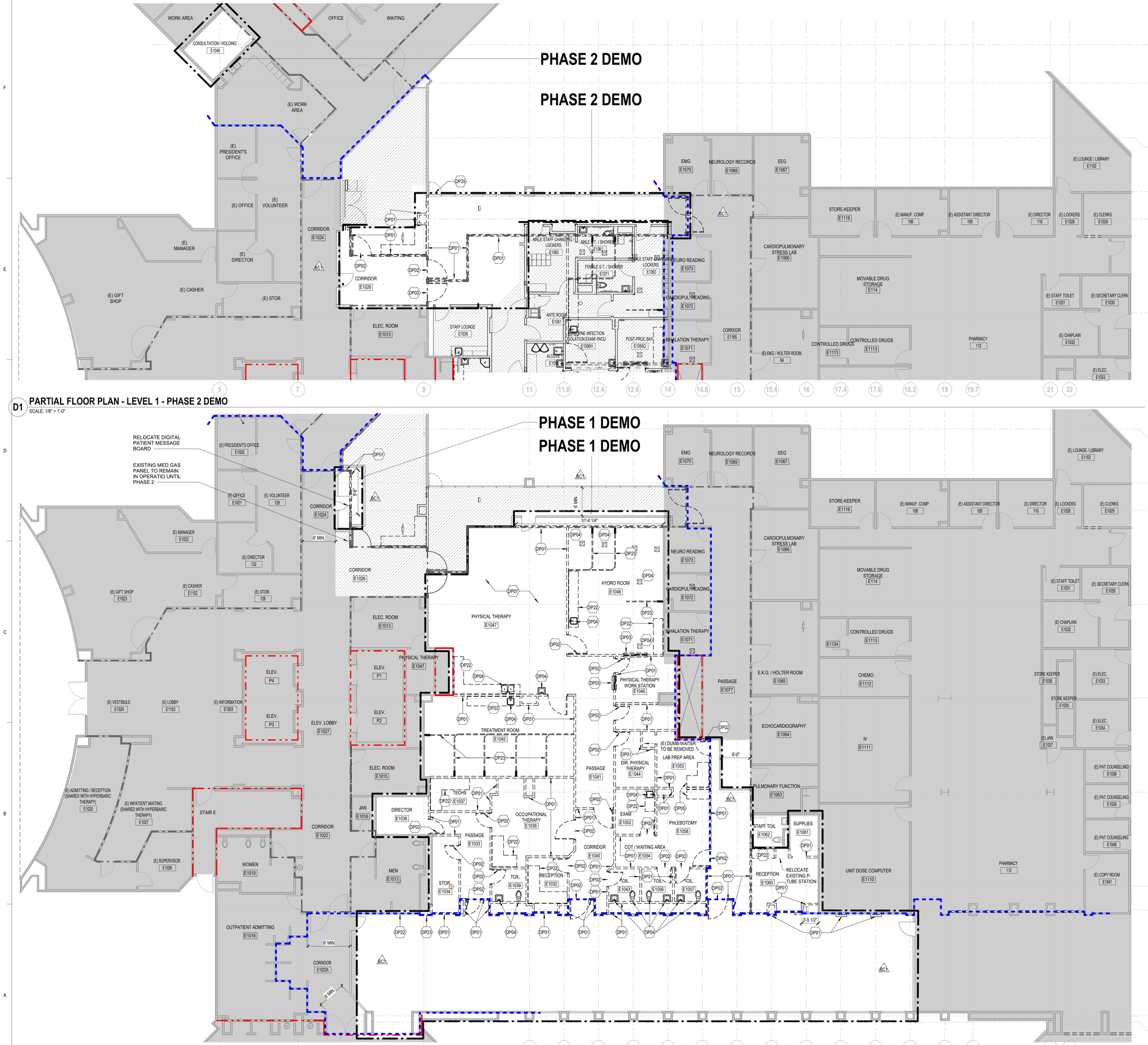
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PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - DEMO

SHEET NUMBER

AD121

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D1 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 2 DEMO

SCALE: 1/8" = 1'-0"

A1 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 1 DEMO

SCALE: 1/8" = 1'-0"

7/12/2024 2:43:37 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

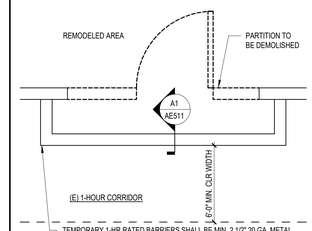
SHEET NOTES - DEMOLITION

1. DEMOLITION NOTES APPLY TO ALL DRAWING SHEETS.
2. REMOVE EXISTING FINISHES, ADHESIVES OR OTHER MATERIALS THAT WILL CONFLICT WITH NEW FINISHES SCHEDULED IN EXISTING OR NEWLY REMODELED SPACES. REMOVE OR MODIFY PARTITION, CEILNG, BASES AND FLOORING FINISH SUBSTRATES TO ACCOMODATE NEW FINISHES AS SCHEDULES
3. REMOVE EXISTING PARTITIONS, DOORS, FRAMES, SOFFITS, MILLWORK, FIXTURES, ETC. ON THE DEMOLITION PLAN SHOWN WITH DASHED LINES. TURN SALVAGEABLE ITEMS OVER TO OWNER AT A LOCATION OF THE OWNER'S CHOOSING.
4. REMOVE AND SALVAGE EXISTING EQUIPMENT AND WALL MOUNTED ACCESSORIES FOR RELOCATION BY OWNER.
5. REMOVE GENERAL, MECHANICAL AND ELECTRICAL MATERIAL NOT NECESSARILY SHOWN, BUT REQUIRED TO BE REMOVED TO COMPLETE WORK.
6. CUTTING AND PATCHING REQUIRED FOR NEW MECHANICAL AND ELECTRICAL WORK IN EXISTING SPACES SHALL BE BY RESPECTIVE CONTRACTORS.
7. CONTRACTOR TO VERIFY WITH OWNER THAT HAZARDOUS MATERIAL SURVEY HAS BEEN COMPLETED FOR MATERIALS TO BE REMOVED/DISTURBED.
8. THE CONTRACTOR SHALL VERIFY EXISTIN FINISHES AND CONDITION BEFORE CONSTRUCTION BEGINS.
9. CONTRACTOR SHALL COORDINATE DEMOLITION WORK PHASING AND SEQUENCING WITH OWNER PRIOR TO START OF CONSTRUCTION.
10. ERECT DUST-PROOF PARTITONS AS REQUIRED BY OWNER AND FIRE MARSHALL TO PROTECT ADJACENT AREA DURING CONSTRUCIOTN.
11. MAINTAIN REQUIRED EXISTS AND MEANS OF EGRESS DURING CONSTRUCTION.
12. PROTECT MECHANICAL AND ELECTRIAL SERVICES AS REQUIRED TO REMAIN IN OPERATION.
13. REMOVE CEILING SYSTEMS AS REQUIRED TO ACCODDOMATE MECHANICAL AND ELECTRICAL WORK. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR APPROXIMATE LOCATIONS. SALVAGE TILES AND GRID FOR REINSTALLATION WHEN COMPETE UNLESS NOTED OTHERWISE.
14. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR SCOPE AND EXTENT OF MECHANICAL AND ELECTRICAL WORK.
15. DURING THE DEMOLITION PROCESS THERE MAY BE INSTANCES WHERE THE REMOVAL OR ABANDONMENT OF A FIXTURE, DUCT, CONDUIT OR OTHER PIECE OF EQUIPMENT MAY LEAVE AN OPENING IN A REQUIRED FIRE RESISTIVE ASSEMBLY. AS PARET OF THE DEMOKITION AND REMODELING PROCESS A FIRE-RESISTIVE "MEMBER" OR "THROUGH" PENETRATION (AND/OR OPEN JOINT) RESULTING FORM SUCH DEMOLITION WORK SHALL BE FIRESTOPPED OR SEALED IN ACCORDANCE WITH CBC FOR THE NECESSARY RATING PROTECTION. PROVISIONS FOR REQUIRED FIRESTOP CONDITIONS SHALL BE INCLUDED AS PART OF THIS SECTION.
16. PATCH "EXISTING TO REMIAN" BUILDING COMPONENTS IF DAMAGED DURING DEMOLITION. MATCH AJDACENT MATERIALS AND FINISHES.
17. COORDINATE WITH THE OWNER FOR THE STORAGE AND RELOCATION REQUIREMENTS OF EXISTING AND SALVAGED ITEMS.
18. VERIFY EXISTING SPRINKLERS SYSTEM WITH SPRINKLER CONTRACTOR PRIOR TO DEMOLITION. SPRINKLER CONTRACTOR TO MODIFY AND MAINTAIN SYSTEM CODE REQUIREMENTS THROUGHOUT THE PROJECT.
19. CONTRACTOR SHALL REMOVE/MODIFY EXISTING GYPSUM BOARD AND ACT CEILINGS AS NECESSARY FOR NEW CEILING LAYOUT AND MECHAICAL DUCTWORK. SEE CEILING PLAN FOR NEW CEILING LAYOUT.
20. CONTRACTOR SHALL REMOVE OWNER'S EXISTING WALL MOUNTED ITEMS AND TURN OVER TO OWNER'S STOCK IN DEMOLITION AREAS.
21. CONTRACTOR TO EVALUATE MOISTURE MITIGATION AT SLAB AFTER FLOORING DEMOLITION. VERIFY FLOORING FINISHES INSTALLATION AND WARRANTY REQUIREMENTS FROM MANUFACTURER.
22. USE AND PATHWAY OF TEMPORARY CONSTRUCTION WALLS AND TEMP DUST BARRIERS SHALL MEET THE REQUIREMENTS OF THE 2022 CFC, SECTION 3305.9 AND COMPLY WITH THE HOSPITAL INFECTIOUS CONTROL REQUIREMENTS. "TEMPORARY DUST BARRIER" MATERIAL SHALL SATISFY ONE OF THE FOLLOWING: 1. NONCOMBUSTIBLE MATERIALS. 2. MATERIALS THAT EXHIBIT A FLAME SPREAD INDEX NOT EXCEEDING 25 WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723. 3. MATERIALS EXHIBITING A PEAK HEAT RELEASE RATE NOT EXCEEDING 300 KW/M2 WHEN TESTED IN ACCORDANCE WITH ASTM E1354 AT AN INCIDENT HEAT FLUX OF 50 KW/M2 IN THE HORIZONTAL ORIENTATION ON SPECIMENS AT THE THICKNESS INTENDED FOR USE. PLEASE NOTE: IF THE MATERIAL IS TO COMPLY WITH ITEM #2 IDENTIFIED ABOVE, PLEASE BE SURE THE MATERIAL HAS A CLASS A FLAME SPREAD AND/OR DOES NOT EXCEED A FLAME SPREAD INDEX OF 25.

KEY NOTES - DEMOLITION

DP01	DEMOLISH EXISTING WALL IN ITS ENTIRETY
DP02	DEMOLISH EXISTING DOOR AND FRAME
DP03	DEMOLISH EXISTING WINDOW AND FRAME
DP04	DEMOLISH EXISTING PLUMBING FIXTURE IN ITS ENTIRETY, CAP PLUMBING AS REQUIRED
DP05	DEMOLISH EXISTING CASEWORK
DP07	DEMOLISH EXISTING FLOORING IN ITS ENTIRETY. PREPARE SUBSTRATE TO ACCEPT NEW FINISH
DP22	REMOVE WALL ATTACHMENT AND RETURN TO OWNER
DP23	REMOVE BULKHEAD AND LIGHT FIXTURE ABOVE, TYP.
DP25	DEMOLITION AND RECONSTRUCTION WILL OCCUR WITHIN ONE SINGLE 8-HOUR SHIFT, SUBJECT TO THE PRIOR REVIEW AND APPROVAL OF THIS APPROACH BY THE OSHPD FIELD FIRE LIFE SAFETY OFFICER. WORK MAY NOT PROCEED UNTIL THAT APPROVAL HAS BEEN OBTAINED. IN THE EVENT THE WORK CANNOT BE COMPLETED IN THAT SINGLE SHIFT, A TEMPORARY BARRIER SHALL BE PROVIDED TO PROVIDE WEATHER PROTECTION PER 2022 CBC, SECTION 1405.2.

BC1



TEMPORARY 1-HR RATED BARRIERS SHALL BE MIN. 2 1/2" 20 GA. METAL STUDS WITH TYPE X GYP. BD. BOTH SIDES. BARRIERS SHALL EXTEND TO UNDERSIDE OF RATED FLOOR/ROOF DECK OR RATED CORRIDOR TUNNEL OR RETURNED HORRIZONTALLY BACK TO THE RATED WALL.

DOORS AND HOLLOW METAL FRAME SHALL BE RATED AS REQ'D FOR THE PARTITIONS/BARRIERS BEING REMODELED. DOORS WILL HAVE MIN. 20 MIN H.M. FRAMES/DOORS.

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- SMOKE PARTITION PER CBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- PHASING 1 OUTLINE
- PHASING 2 OUTLINE BC1
- TEMPORARY CONSTRUCTION BARRIER, 1 HR FIRE PARTITION W/ 20 MIN PROTECTED OPENINGS. SEE DETAIL A1/AE511

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

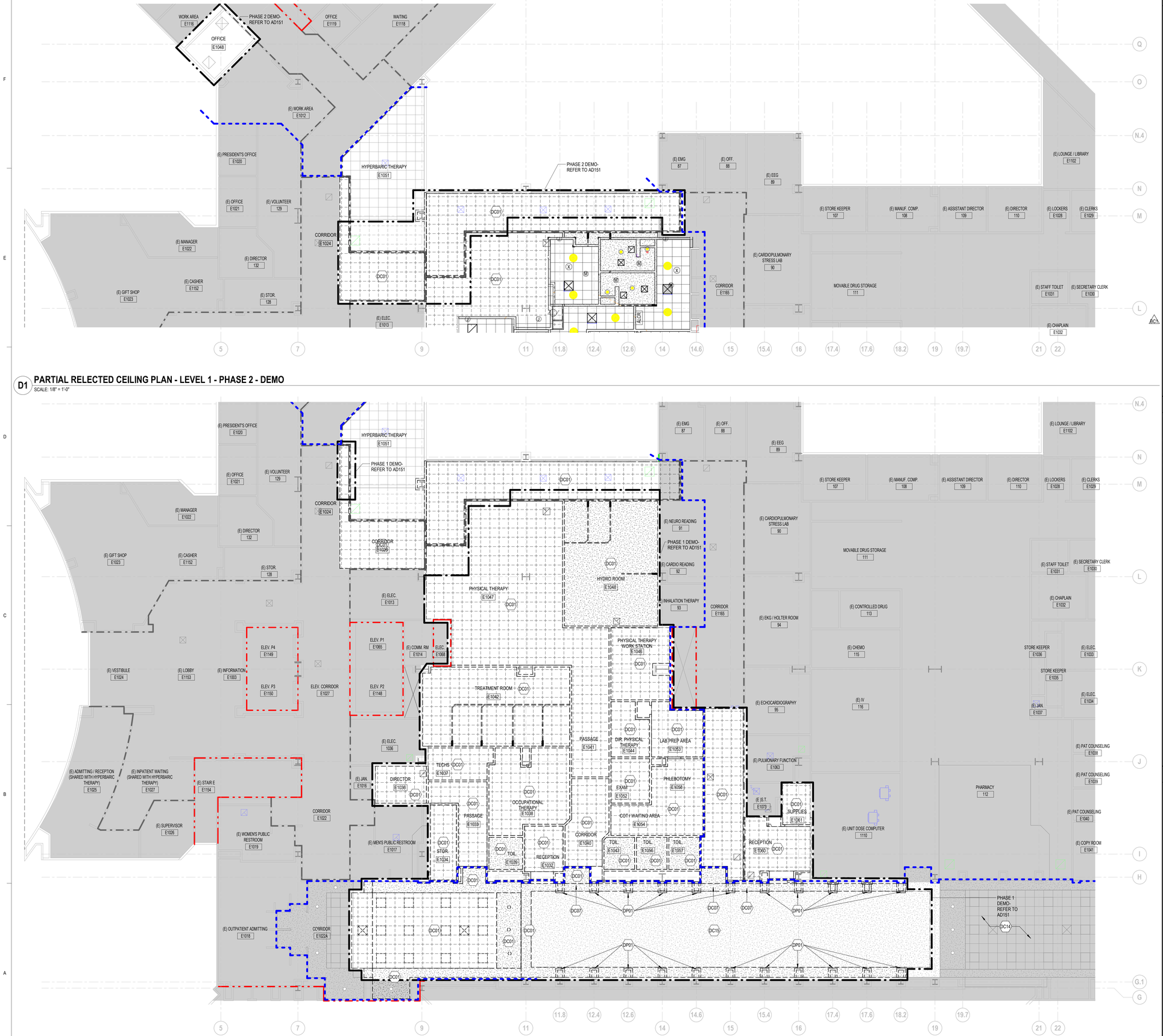
SHEET NAME

PHASING PLAN - LEVEL 1 - FLOOR PLAN - DEMO

SHEET NUMBER

AD151

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D1 PARTIAL RELECTED CEILING PLAN - LEVEL 1 - PHASE 2 - DEMO

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A1 PARTIAL RELECTED CEILING PLAN - LEVEL 1 - PHASE 1 - DEMO

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KEY NOTES - DEMOLITION

DC01 DEMOLISH EXISTING CEILING, DEVICES, DUCTWORK (SERVING AREA OF WORK), MEDICAL GAS OUTLETS (WHERE OCCURS), AND HVAC REGISTERS. CAP ALL UTILITIES AS REQUIRED DURING CONSTRUCTION. PROTECT EXISTING SPRINKLER PIPING IN PLACE

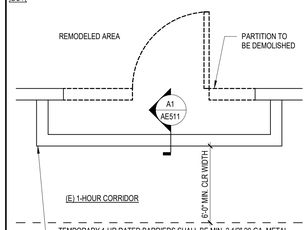
DC07 SALVAGE AND RETURN TO OWNER EXISTING MURAL WALL PANELS FROM EACH RECESS AT NORTH WALL AT HALL, TYPICAL.

DC14 EXISTING CEILING TO REMAIN, PROTECT IN PLACE

DC15 DEMOLISH EXISTING VAULTED CEILING

DP01 DEMOLISH EXISTING WALL IN ITS ENTIRETY

BC1



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- TEMPORARY CONSTRUCTION BARRIER, 1 HR FIRE PARTITION W/ 20 MIN PROTECTED OPENINGS. SEE DETAIL A1/AE511 (BC1)

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

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Draw	Author
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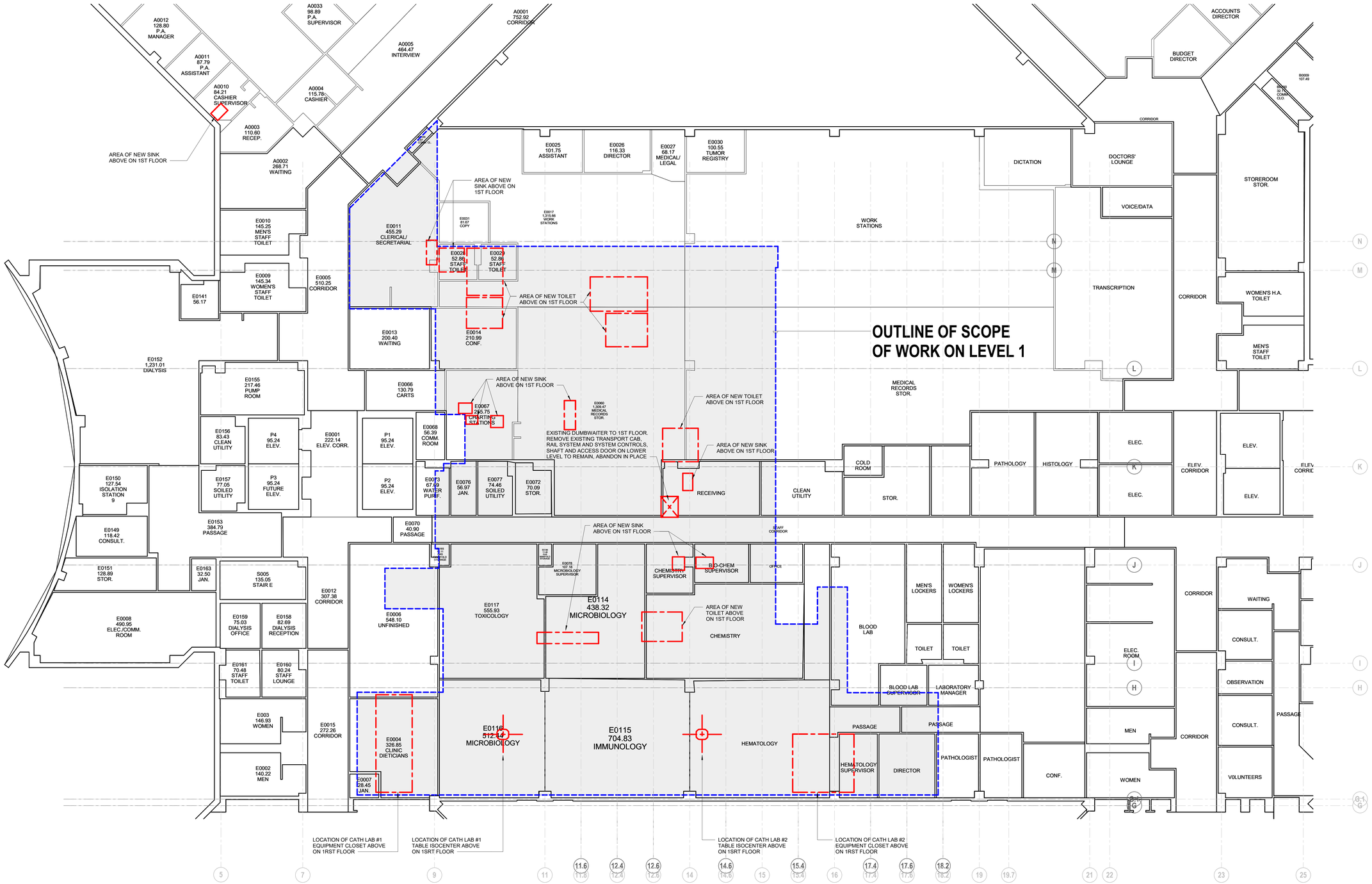
SHEET NAME

PHASING PLAN - LEVEL 1 - REFLECTED CEILING PLAN - DEMO

SHEET NUMBER

AD152

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A1 EXISTING PARTIAL FLOOR PLAN - LOWER LEVEL
SCALE: 1/8" = 1'-0"

TRUE NORTH

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

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BC1	BACK CHECK 01	04/19/2024

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FM08430011869	047-10071-002

SHEET NAME
PARTIAL FLOOR PLAN - LEVEL LOWER -EXISTING CONDITION

SHEET NUMBER
AE110

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PHASE 2 REMODEL - REFER TO D1/AE152

PHASE 1 REMODEL - REFER TO A1/AE152

PHASE 2 REMODEL - REFER TO D1/AE152

PHASE 1 REMODEL - REFER TO A1/AE152

OPEN BELOW

OPEN BELOW

PHARMACY

OUTPATIENT DIAGNOSTIC STUDIES

ENGINEERING REVISIONS RELATED TO THIS 1 HR FIRE BARRIER WALL WILL BE SUBMITTED AS AN ACD

NO STORAGE IN CORRIDOR E1058

NO STORAGE IN CORRIDOR E1059B

NO STORAGE IN CORRIDOR E1040

CEILING LINE ABOVE

SOFFIT ABOVE

DOOR STAYS IN OPEN POSITION

CEILING MTD HUMIDIFIER (PROVIDE ACCESS PANEL)

AIRBORNE INFECTION ISOLATION PACU

SEMI-RESTRICTED CORRIDOR

A1 PARTIAL FLOOR PLAN - LEVEL 1 - REMODEL

SCALE: 1/8" = 1'-0"

TRUE NORTH

N

SHEET NOTES

1. REPAIR EXISTING FIRE RATED WALLS WITHIN SCOPE AS REQUIRED TO MAINTAIN RATING, TYP.
2. PROVIDE SISTER STUDS WHERE NEW BACKING PLATES ARE REQUIRED AT EXISTING WALLS WHICH ARE NOT 16GA STUDS, TYP.
3. WHERE FIRE RATED WALLS NEED TO BE REPAIRED, UPGRADE HEAD OF WALL AND FIRE PENETRATIONS TO MEET DETAIL XV/ AEXXX, UL DESIGN NO. U419
4. SCOPE OF WORK CONSISTS OF THE PROJECT AREA AND ADJACENT AREAS WITHIN THE 1ST LEVEL, 2ND LEVEL AND LOWER LEVEL. INCLUDE IN BID ALL WORK NECESSARY TO ADDRESS NEW SCOPE INCLUDING WORK ON NIGHTS AND WEEKENDS. SCOPE OF WORK SHALL BE COORDINATED WITHIN ALL DISCIPLINES INCLUDING STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, LOW VOLTAGE, MEDICAL GAS, FIRE ALARM, FIRE SPRINKLER AND EQUIPMENT VENDOR REQUIREMENTS. REVIEW ALL DRAWINGS TO OBTAIN COMPLETE SCOPE OF WORK.
   GENERAL CONTRACTOR TO COORDINATE WORK AMONG MULTIPLE DISCIPLINES.
5. SEE SHEET AE151 FOR PHASING PLANS AND SHEET AE152 FOR PHASING CEILING PLANS. COORDINATE ALL WORK WITHIN ALL DISCIPLINES.
6. ALL WALLS REQUIRING SHIELDING SHALL HAVE LEAD SHIELDING EXTEND TO A HEIGHT OF 7'-0" ABOVE FLOOR. LEAD BATTEN STRIPS, DISKS AND PATCHES SHALL COVER ALL JOINTS AND INTRUSIONS INTO WALLS, CEILING OR FLOORS INCLUDING J-BOXES OR OTHER REASONS.
7. ALL DOORS AND WINDOWS CONTAINED IN A WALL SHALL HAVE A LEAD EQUIVALENT SHIELDING THICKNESS EQUAL TO OR GREATER THAN PRESCRIBED FOR THAT WALL.
8. CONTRACTOR TO PROVIDE AND INSTALL PULLBOXES, J-BOX AND BUSHING FOR PHILIPS AND SECHRIST SYSTEMS. REFER TO ELECTRICAL TECHNOLOGY AND VENDOR DRAWINGS.
9. FOR ALL BOXES TO BE INSTALLED ALONG RATED WALLS, PROVIDE 5-SIDED BOX DETAIL PER A9/AE541
10. ALL SHEETROCK PARTITION NOT TAGGED SHALL BE 3-METAL STUD
11. BC1 PRIOR TO FRAMING NEW WALLS, CONTRACTOR SHALL LAYOUT THE POSITION OF ALL NEW WALLS ON THE FLOOR FOR VALIDATION OF REQUIRED INTERIOR FINISH CLEARANCES, TO IDENTIFY TOP OF WALL FRAMING CONFLICTS AND COORDINATION WITH UTILITIES.
    CONTRACTOR TO SCHEDULE A SITE MEETING TO REVIEW LAYOUT WITH AOR AND FACILITIES

KEY NOTES - REMODEL

BC1
- P22 RELOCATED WINDOW WITH ACCESS TO ROOF BELOW
- P35 UPGARDE EXISTING 1HR FIRE PARTITION TO A 1 HR FIRE BARRIER PER CODE PLAN

BC2
- P36 PROVIDE VISIBLE AND LEGIBLE SIGNAGE IDENTIFYING ROOM AS "ELECTRICAL ROOM" PER 2022 CFC SECTION 603.4.1
- P44 PROVIDE SIGNAGE AT AIRBORNE INFECTION ISOLATION PACU LABELED AS "AIRBORNE INFECTION ISOLATION PACU" PER CODE

LEGEND

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- 1HR SMOKE BARRIER PER IBC SECTION 709. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- LEAD LINED WALL. SEE AE 141 FOR SHIELDING PLAN
- TEMPORARY CONSTRUCTION BARRIER, 1 HR FIRE RATED CONSTRUCTION, NON-PROTECTED OPENINGS.
- BC2 SEE DETAIL A1/AE511
- EXISTING AREA TO REMAIN, AREA NOT IN SCOPE OF WORK
- SEMI-RESTRICTED CORRIDOR
- PHASE 1 - SCOPE OF WORK
- PHASE 2 - SCOPE OF WORK

KEY NOTES

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LICENSED ARCHITECT STEVEN H. CHENG C-27299 REN. 7/31/25 STATE OF CALIFORNIA

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KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
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FILE LOG

ACTIVITY	BY
Design	KK
Draw	JL
Check	SH
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
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Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

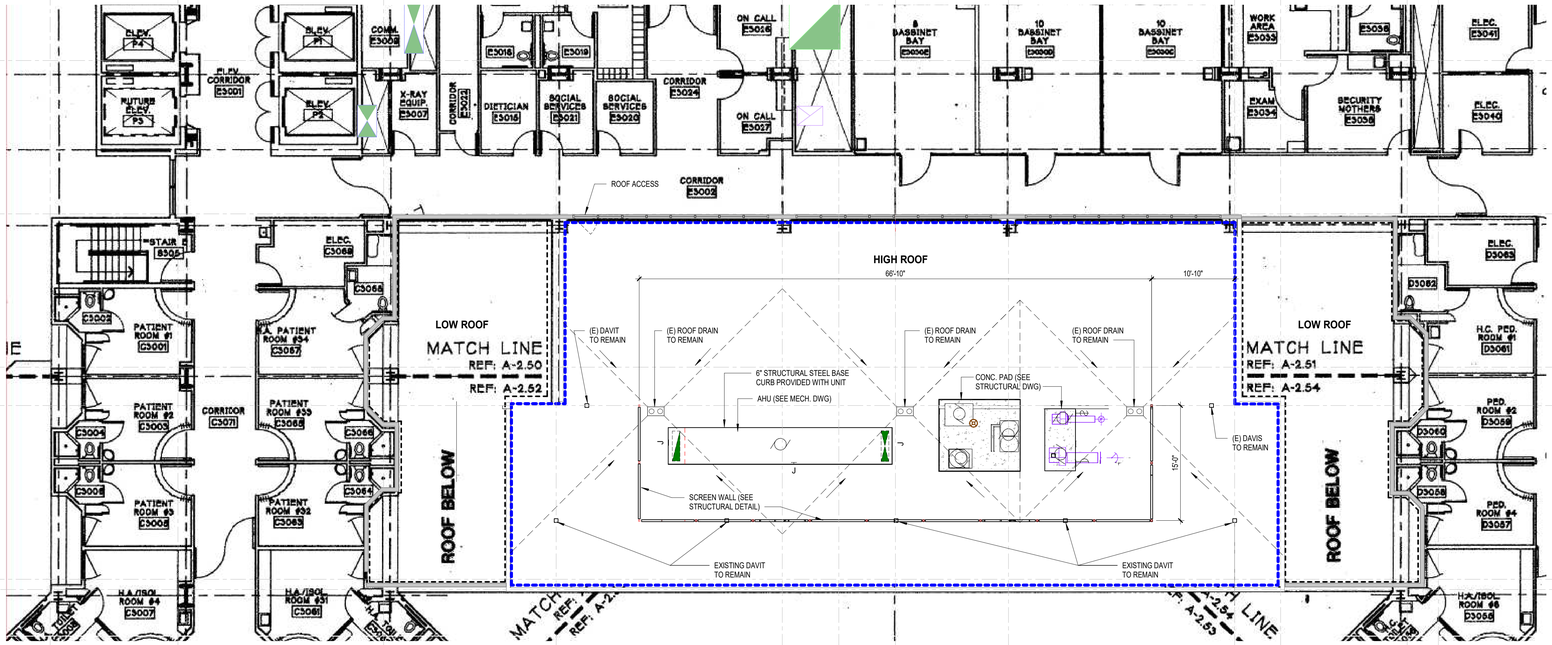
PARTIAL FLOOR PLAN - LEVEL 1 - REMODEL

SHEET NUMBER

AE111

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D1 PARTIAL ROOF PLAN
SCALE: 1/8" = 1'-0"



A1 PARTIAL FLOOR PLAN - LEVEL 2 - REMODEL
SCALE: 1/8" = 1'-0"

TRUE NORTH

N

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Riverside University HEALTH SYSTEM

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1	PLAN CHECK	10/10/2023
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FM08430011869	047-10071-002

SHEET NAME

PARTIAL FLOOR PLAN - LEVEL 2 - REMODEL AND PARTIAL ROOF PLAN

SHEET NUMBER

AE112

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PHASE 2 REMODEL - REFER TO D1/AE152

PHASE 1 REMODEL - REFER TO A1/AE152

PHASE 2 REMODEL - REFER TO D1/AE152

PHASE 1 REMODEL - REFER TO A1/AE152

CONSULTATION / HOLDING E1046
EXISTING TO REMAIN
EXISTING TO REMAIN
(E) WORK AREA E1012
HYPERBARIC THERAPY E1051
HKPG E1051C
P.T. E1051B
P.T. CHANGING E1051A
CORRIDOR E1059B
MALE S.T. / SHOWER E1061
FEMALE STAFF CHANGING LOCKERS E1062
MALE STAFF CHANGING LOCKERS E1070
FEMALE S.T. / SHOWER E1071
EXISTING
CORRIDOR E1058
CORRIDOR E1059
ANTE ROOM E1061
HYPERBARIC INJECTION MEDICATION ROOM E1060
POST-PROC BAY E1059G
PHASE 1 DEMO- REFER TO AD151
STAFF LOUNGE E1028
HSKG E1036
ALCOVE E1058
ST. TOB E1057
PREP/POST-PROC BAY 4 E1059D
SOILED HOLDING E1037
PREP/POST-PROC BAY 3 E1059C
MEDICATION STATION E1066F
CLEAN SUPPLY E1035
CORRIDOR E1053
PREP/POST-PROC BAY 2 E1059B
STORAGE, EQUIPMENT E1034
PREP/POST-PROC BAY 1 E1059A
P.T.
PAT. TOIL. E1064
CHANGING E1063
SEMI-RESTRICTED CORRIDOR E1046
OPEN
I.T. E1074
I.E. I.S.T. E1073
OPEN
ELEC. E1075
B1 AE520
A1 AE520
B.C.2
B.C.1
MODIFY CEILING AS NEEDED AT EXISTING CEILING
AREA OF RATED LID ABOVE
CORRIDOR E1022
CLG HGT @ 9'-0"
EQUIP RM 1 E1047B
CATH LAB 1 E1047
CPD5
CATH LAB 2 E1045
EQUIP RM 2 1069B
RECEPTION E1077
OFFICE E1076
CORRIDOR E1022A
CONTROL RM1 E1047A
CONTROL RM 2 E1048A
PHASE 1 DEMO- REFER TO AD151
CP12
CP12
A1 AE221
D1 AE221

A1 PARTIAL REFLECTED CEILING PLAN - LEVEL 1- REMODEL

SCALE: 1/8" = 1'-0"

SHEET NOTES

KEY NOTES - CEILING PLAN - REMODEL

CP05	NEW 18 X 18 ACCESS PANELS. CONFIRM LOCATION PRIOR TO INSTALLATION.
CP12	WHERE GYPSUM BOXES REMOVED AT EXTERIOR WALL, PATCH AS NEEDED TO MAINTAIN AIR BARRIER AND ALLOW FOR NEW FURRED WALL TO BE CONSTRUCTED, TYPICAL.

CEILING PLAN LEGEND

- EXISTING LAY-IN TILE GRID CEILING
- NEW LAY-IN TILE GRID CEILING
- NEW LAY-IN TILE GRID CEILING, (HATCH INDICATES TUNNEL COORIDOR AREA)
- NEW LAY-IN TILE GRID CEILING, COMPLIANT FOR USE IN AIRBORNE INFECTION ISOLATION EXAM / PACU ROOM. NON-ABSORBING, NON-PERFORATED, CLEAN AND WASHABLE. LAY-IN TILES SHALL BE GASKETED.
- EXISTING PAINTED GYB. BD. CEILING
- NEW PAINTING GYP. BD. CEILING SEE DETAIL A1 & A4 ON AE519

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

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KEY PLAN

REVISIONS

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1	PLAN CHECK	10/10/2023
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PROJECT TITLE

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

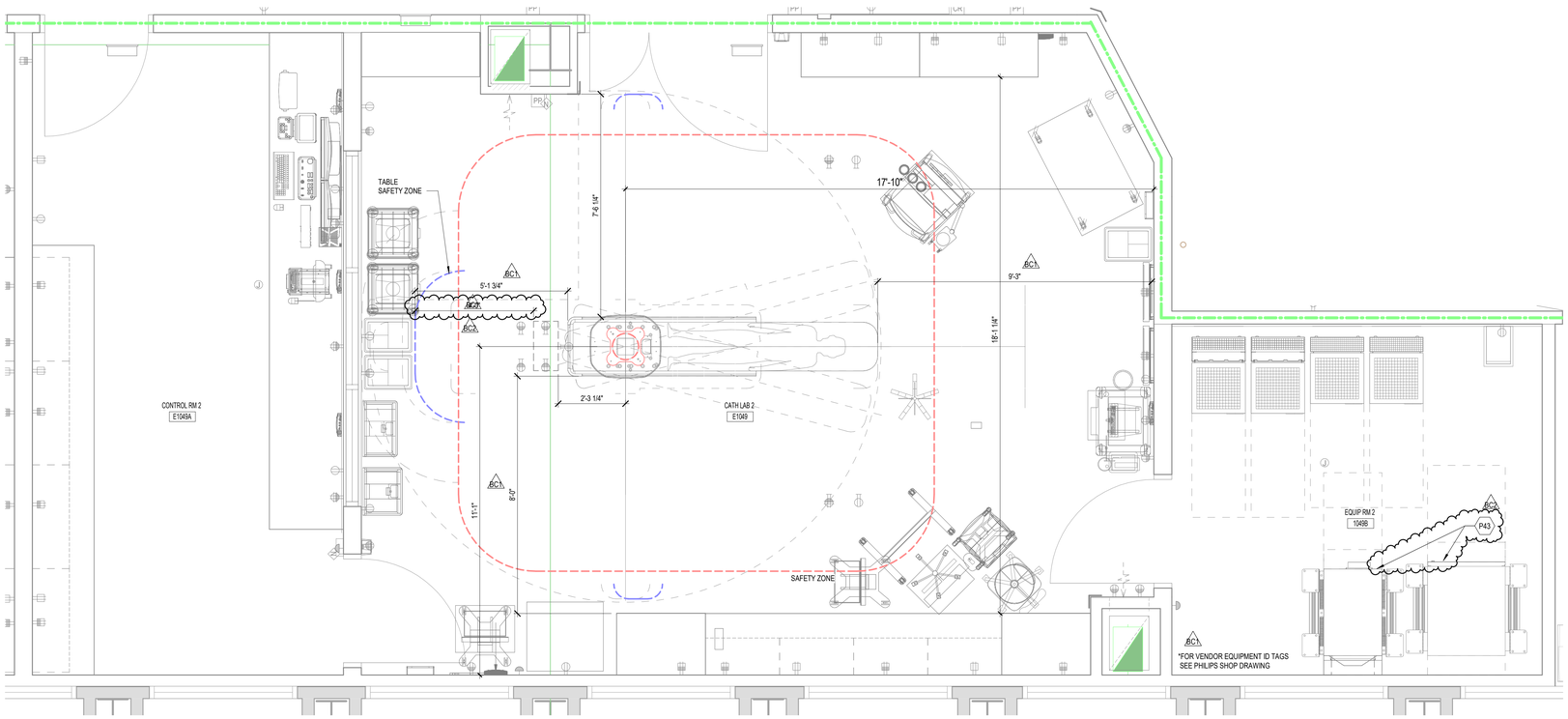
PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - REMODEL

SHEET NUMBER

AE121

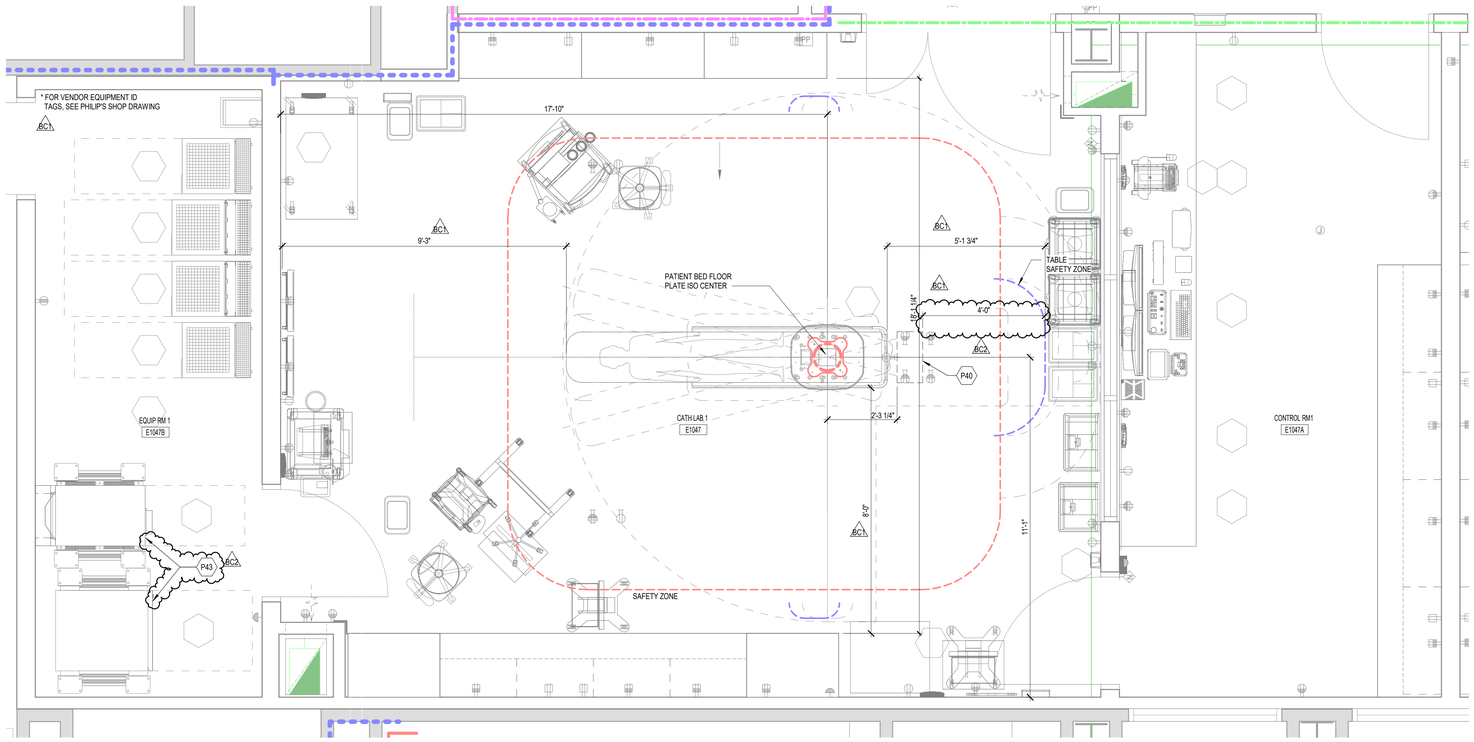
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D1 IMAGING EQUIPMENT ENLARGED PLAN - CATH LAB 2

SCALE: 1/2" = 1'-0"



A1 IMAGING EQUIPMENT ENLARGED PLAN - CATH LAB 1

SCALE: 1/2" = 1'-0"

LEGEND

- 2 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 90 MINUTES.
- 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- 1 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- SMOKE PARTITION PER IBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- 1HR SMOKE BARRIER PER IBC SECTION 709. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.

KEY NOTE

BC1	P40	FLOOR PEDESTAL BOX FOR ELECTRICAL AND MED GAS. SEE ELEC. DWGS.
BC2	P43	SOCOMEC UPS SYSTEM. BATTERY TYPE : VALUE REGULATED LEAD ACID BATTERY. BATTERY CAPACITY OF 48 BLOCK BATTERY RACK X QTY 5 BATTERY RACKS = 3.888 KWH X 5 = 19.44 KWH (REFER TO PHILIP VENDOR DWGS)

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SHEET NAME

IMAGING EQUIPMENT ENLARGED PLAN - CATH LAB

SHEET NUMBER

AE131

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Radiation Protection Shielding Design

Facility: Riverside University System Medical Center
Address: 26520 Cactus Avenue, Moreno Valley, CA 92555
Contact: Jenny Liu, Leo A Daly Architects C:/Lu@leoadaly.com 213-316-4571
Room ID: Cath Lab Procedure Room # 1

Signature: Melissa C. Martin
Date: 12/8/Dmber 15, 2023

Calculation Method: NCRP 147
Installation Type: Cardiac Cath Lab
Patients / Week: 40

Physicist:
Melissa C. Martin, M.S., DABR, FACR
Certified Radiological Physicist
Therapy Physics, Inc.
2700 Gateway Oaks, Ste 270, Signal Hill, CA 90755
562.317.0650, FAX 562.317.0661 Cell: 310-612-8127
e-mail: melissa@therapyphysics.com

Barrier Requirements Summary

Protected Location	Existing Structural Material	Recommended Additional Barrier	P/T (mGy/wk)	Shielded Air Kerma (mGy/wk)
Control Room # 1		4 / 64lfm inch lead	0.02	0.0064
Corridor		4 / 64lfm inch lead	0.1	0.0143
Equipment Room		4 / 64lfm inch lead	0.1	0.0132
Exterior Wall	0.625 in gypsum	2 / 64lfm inch lead	0.2	0.0889
Floor	5.5 in concrete		0.02	0.0064

12/16/2023 Cath Lab 1 12-23.xlsm — Therapy Physics, Inc. 562-317-0650

Comments and Recommendations

1. This is a shielding report for a Cardiac Cath Lab to be installed on the first floor of this multi-story building. The floor is 4.5 inches normal weight concrete on a 2 inch deck for an average thickness of 5.5 inches. There are no occupied areas above this room. The floor to floor height is 15 feet. **No additional lead is required in the floor or ceiling.**

The exterior wall is a combination of gypsum board and stucco or windows. The entire wall will be covered with 1/32 inch lead lined gyp board.

2. All additional lead shielding in the walls will be added to a height of 7 feet (84 inches) to comply with requirements of Title 17, CA Code of Regulations.

3. All shielding requirements are based on NCRP Report #147 (2005) "Structural Shielding Design and Evaluation for Medical Use of X-Rays." Calculations for each barrier are made using the computer software program based on data and assumptions are from NCRP Report # 147.

4. The additional shielding recommendations are designed to meet Radiation Protection Standards as defined by Title 17, CA Code of Regulations and by reference 10 CFR20. Any future changes in either equipment, workload or room design will necessitate a re-evaluation of these shielding requirements.

5. The following assumptions were used in the shielding calculations:
For all secondary barriers, Workload: 30 patients per week.

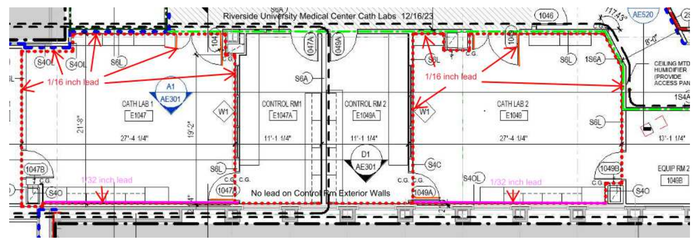
6. All junction boxes and other penetrations in lead lined walls must be lined with equivalent thickness of lead with overlapping lead edges. (No gaps in lead lining)

7. Door frames must be steel with lead lining to provide equivalent shielding to the surrounding walls.
For lead thickness's of 1/32 inch or less, the steel door frames do not need lead lining. For doors in walls with lead thickness's of 1/16 or greater, the steel door frames must be lead lined with the same thickness of lead as is in the wall.

8. Control Area window should be of at least 1.5 mm lead.

9. Equivalent thickness' of lead for existing walls and floors is assumed to be as follows:
1 #/sq ft lead = 0.395 mm = 1/64 inch
2 #/sq ft lead = 0.79 mm = 1/32 inch
3 #/sq ft lead = 1.19 mm = 3/64 inch
4 #/sq ft lead = 1.58 mm = 1/16 inch.
5 #/sq ft lead = 1.98 mm = 5/64 inch
6 #/sq ft lead = 2.38 mm = 3/32 inch.

12/16/2023 Cath Lab 1 12-23.xlsm — Comments — Therapy Physics, Inc. 562-317-0650



Protected Location: Control Room # 1

Design Goal (P) (mGy/wk): 0.02 — Occupancy (T): 1 — P/T (mGy/wk): 0.020 — Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A
Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	10.0 ft	10.0 ft						
Unshielded Air Kerma (mGy/wk):	1.17E-01	3.48E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	1.17E-01	3.48E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0002	0.0062						

Existing Structural Material: — Material:
Additional Barrier Required: 1.15 mm — Material: Lead
Recommended Additional Barrier: 1.59 mm — Material: Lead (4 / 64lfm inch) — **Shielded Air Kerma (mGy/wk): 0.0064**

12/16/2023 Cath Lab 1 12-23.xlsm — Page 1 — Therapy Physics, Inc. 562-317-0650

Protected Location: Corridor

Design Goal (P) (mGy/wk): 0.02 — Occupancy (T): 0.2 — P/T (mGy/wk): 0.100 — Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A
Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.0 ft	12.0 ft						
Unshielded Air Kerma (mGy/wk):	2.63E-01	7.77E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.63E-01	7.77E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0005	0.0138						

Existing Structural Material: — Material:
Additional Barrier Required: 0.86 mm — Material: Lead
Recommended Additional Barrier: 1.59 mm — Material: Lead (4 / 64lfm inch) — **Shielded Air Kerma (mGy/wk): 0.0143**

12/16/2023 Cath Lab 1 12-23.xlsm — Page 1 — Therapy Physics, Inc. 562-317-0650

Protected Location: Equipment Room

Design Goal (P) (mGy/wk): 0.02 — Occupancy (T): 0.2 — P/T (mGy/wk): 0.100 — Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A
Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.5 ft	12.5 ft						
Unshielded Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0004	0.0128						

Existing Structural Material: — Material:
Additional Barrier Required: 0.83 mm — Material: Lead
Recommended Additional Barrier: 1.59 mm — Material: Lead (4 / 64lfm inch) — **Shielded Air Kerma (mGy/wk): 0.0132**

12/16/2023 Cath Lab 1 12-23.xlsm — Page 1 — Therapy Physics, Inc. 562-317-0650

Protected Location: Exterior Wall

Design Goal (P) (mGy/wk): 0.02 — Occupancy (T): 0.2 — P/T (mGy/wk): 0.100 — Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A
Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.5 ft	12.5 ft						
Unshielded Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0004	0.0128						

Existing Structural Material: — Material:
Additional Barrier Required: 0.83 mm — Material: Lead
Recommended Additional Barrier: 1.59 mm — Material: Lead (4 / 64lfm inch) — **Shielded Air Kerma (mGy/wk): 0.0132**

12/16/2023 Cath Lab 1 12-23.xlsm — Page 1 — Therapy Physics, Inc. 562-317-0650

Protected Location: Control Room # 1

Design Goal (P) (mGy/wk): 0.02 — Occupancy (T): 1 — P/T (mGy/wk): 0.020 — Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A
Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	10.0 ft	10.0 ft						
Unshielded Air Kerma (mGy/wk):	1.17E-01	3.48E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	1.17E-01	3.48E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0002	0.0062						

Existing Structural Material: — Material:
Additional Barrier Required: 1.15 mm — Material: Lead
Recommended Additional Barrier: 1.59 mm — Material: Lead (4 / 64lfm inch) — **Shielded Air Kerma (mGy/wk): 0.0064**

7/5/2023 Cath Lab 1 7-23.xlsm — Page 1 — Therapy Physics, Inc. 562-317-0650

Protected Location: Corridor

Design Goal (P) (mGy/wk): 0.02 — Occupancy (T): 0.2 — P/T (mGy/wk): 0.100 — Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A
Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.0 ft	12.0 ft						
Unshielded Air Kerma (mGy/wk):	2.63E-01	7.77E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.63E-01	7.77E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0005	0.0138						

Existing Structural Material: — Material:
Additional Barrier Required: 0.86 mm — Material: Lead
Recommended Additional Barrier: 1.59 mm — Material: Lead (4 / 64lfm inch) — **Shielded Air Kerma (mGy/wk): 0.0143**

7/5/2023 Cath Lab 1 7-23.xlsm — Page 1 — Therapy Physics, Inc. 562-317-0650

Protected Location: Equipment Room

Design Goal (P) (mGy/wk): 0.02 — Occupancy (T): 0.2 — P/T (mGy/wk): 0.100 — Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A
Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.5 ft	12.5 ft						
Unshielded Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0004	0.0128						

Existing Structural Material: — Material:
Additional Barrier Required: 0.83 mm — Material: Lead
Recommended Additional Barrier: 1.59 mm — Material: Lead (4 / 64lfm inch) — **Shielded Air Kerma (mGy/wk): 0.0132**

7/5/2023 Cath Lab 1 7-23.xlsm — Page 1 — Therapy Physics, Inc. 562-317-0650

Protected Location: Exterior Wall

Design Goal (P) (mGy/wk): 0.02 — Occupancy (T): 0.2 — P/T (mGy/wk): 0.100 — Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A
Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.5 ft	12.5 ft						
Unshielded Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0004	0.0128						

Existing Structural Material: — Material:
Additional Barrier Required: 0.83 mm — Material: Lead
Recommended Additional Barrier: 1.59 mm — Material: Lead (4 / 64lfm inch) — **Shielded Air Kerma (mGy/wk): 0.0132**

7/5/2023 Cath Lab 1 7-23.xlsm — Page 1 — Therapy Physics, Inc. 562-317-0650

Radiation Protection Shielding Design

Facility: Riverside University Health System Medical Center
Address: 26520 Cactus Avenue, Moreno Valley, CA 92555
Contact: Jenny Liu, Leo A Daly Architects C:/Lu@leoadaly.com 213-316-4571
Room ID: Cath Lab Procedure Room # 2

Signature: Melissa C. Martin
Date: 12/8/Dmber 15, 2023

Calculation Method: NCRP 147
Installation Type: Cardiac Cath Lab
Patients / Week: 40

Physicist:
Melissa C. Martin, M.S., DABR, FACR
Certified Radiological Physicist
Therapy Physics, Inc.
2700 Gateway Oaks, Ste 270, Signal Hill, CA 90755
562.317.0650, FAX 562.317.0661 Cell: 310-612-8127
e-mail: melissa@therapyphysics.com

Barrier Requirements Summary

Protected Location	Existing Structural Material	Recommended Additional Barrier	P/T (mGy/wk)	Shielded Air Kerma (mGy/wk)
Control Room # 1 and Floor		4 / 64lfm inch lead	0.02	0.0064
Corridor		4 / 64lfm inch lead	0.1	0.0143
Equipment Room		4 / 64lfm inch lead	0.1	0.0132
Exterior Wall	0.625 in gypsum	2 / 64lfm inch lead	0.2	0.0879
Floor	5.5 in concrete		0.02	0.0064

12/16/2023 Cath Lab 2 7-23.xlsm — Therapy Physics, Inc. 562-317-0650

Comments and Recommendations

1. This is a shielding report for a Cardiac Cath Lab to be installed on the first floor of this multi-story building. The floor is 4.5 inches normal weight concrete on a 2 inch deck for an average thickness of 5.5 inches. There are no occupied areas above this room. The floor to floor height is 15 feet. **No additional lead is required in the floor or ceiling.**

The exterior wall is a combination of gypsum board and stucco or windows. The entire wall will be covered with 1/32 inch lead lined gyp board.

2. All additional lead shielding in the walls will be added to a height of 7 feet (84 inches) to comply with requirements of Title 17, CA Code of Regulations.

3. All shielding requirements are based on NCRP Report #147 (2005) "Structural Shielding Design and Evaluation for Medical Use of X-Rays." Calculations for each barrier are made using the computer software program based on data and assumptions are from NCRP Report # 147.

4. The additional shielding recommendations are designed to meet Radiation Protection Standards as defined by Title 17, CA Code of Regulations and by reference 10 CFR20. Any future changes in either equipment, workload or room design will necessitate a re-evaluation of these shielding requirements.

5. The following assumptions were used in the shielding calculations:
For all secondary barriers, Workload: 30 patients per week.

6. All junction boxes and other penetrations in lead lined walls must be lined with equivalent thickness of lead with overlapping lead edges. (No gaps in lead lining)

7. Door frames must be steel with lead lining to provide equivalent shielding to the surrounding walls.
For lead thickness's of 1/32 inch or less, the steel door frames do not need lead lining. For doors in walls with lead thickness's of 1/16 or greater, the steel door frames must be lead lined with the same thickness of lead as is in the wall.

8. Control Area window should be of at least 1.5 mm lead.

9. Equivalent thickness' of lead for existing walls and floors is assumed to be as follows:
1 #/sq ft lead = 0.395 mm = 1/64 inch
2 #/sq ft lead = 0.79 mm = 1/32 inch
3 #/sq ft lead = 1.19 mm = 3/64 inch
4 #/sq ft lead = 1.58 mm = 1/16 inch.
5 #/sq ft lead = 1.98 mm = 5/64 inch
6 #/sq ft lead = 2.38 mm = 3/32 inch.

12/16/2023 Cath Lab 2 7-23.xlsm — Comments — Therapy Physics, Inc. 562-317-0650

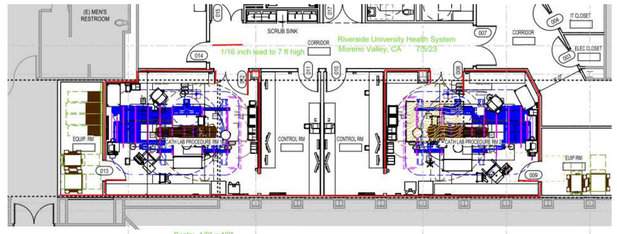
Protected Location: Floor

Design Goal (P) (mGy/wk): 0.02 — Occupancy (T): 1 — P/T (mGy/wk): 0.020 — Barrier Type: Secondary Floor
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Fast/Back
Use Table / Bucky Preshielding?: N/A
Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.0 ft	13.5 ft						
Unshielded Air Kerma (mGy/wk):	2.63E-01	8.74E+00						
Other Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.63E-01	8.74E+00						
Transmission Model:	Leakage	Secondary						
Preshielding Credit:	N/A							
Shielded Air Kerma (mGy/wk):	3.61E-01	3.69E-04						

Other Existing Material: — Material:
Structural Material Required: 4.34 in — Material: Concrete
Existing Structural Material: 5.50 in — Material: Concrete — **Shielded Air Kerma (mGy/wk): 0.0064**

12/16/2023 Cath Lab 2 7-23.xlsm — Page 1 — Therapy Physics, Inc. 562-317-0650



Scale: 1/8" = 1'0"

LEGEND

LEAD LINED PARTITION

A1 SHIELDING PLAN - CATH LAB
SCALE: 1/4" = 1'-0"

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LICENSED ARCHITECT STEVEN A. RICHTER C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

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KEY PLAN

REVISIONS

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1	PLAN CHECK	10/10/2023
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Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
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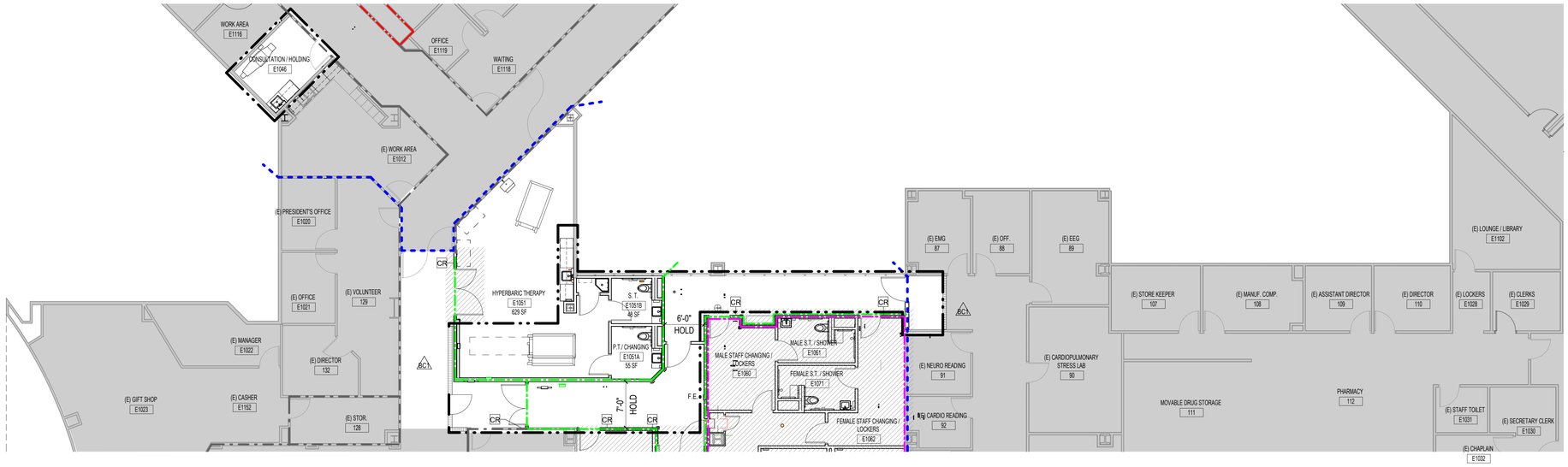
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NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
SHIELDING PLAN - LEVEL 1 - CATH LABS

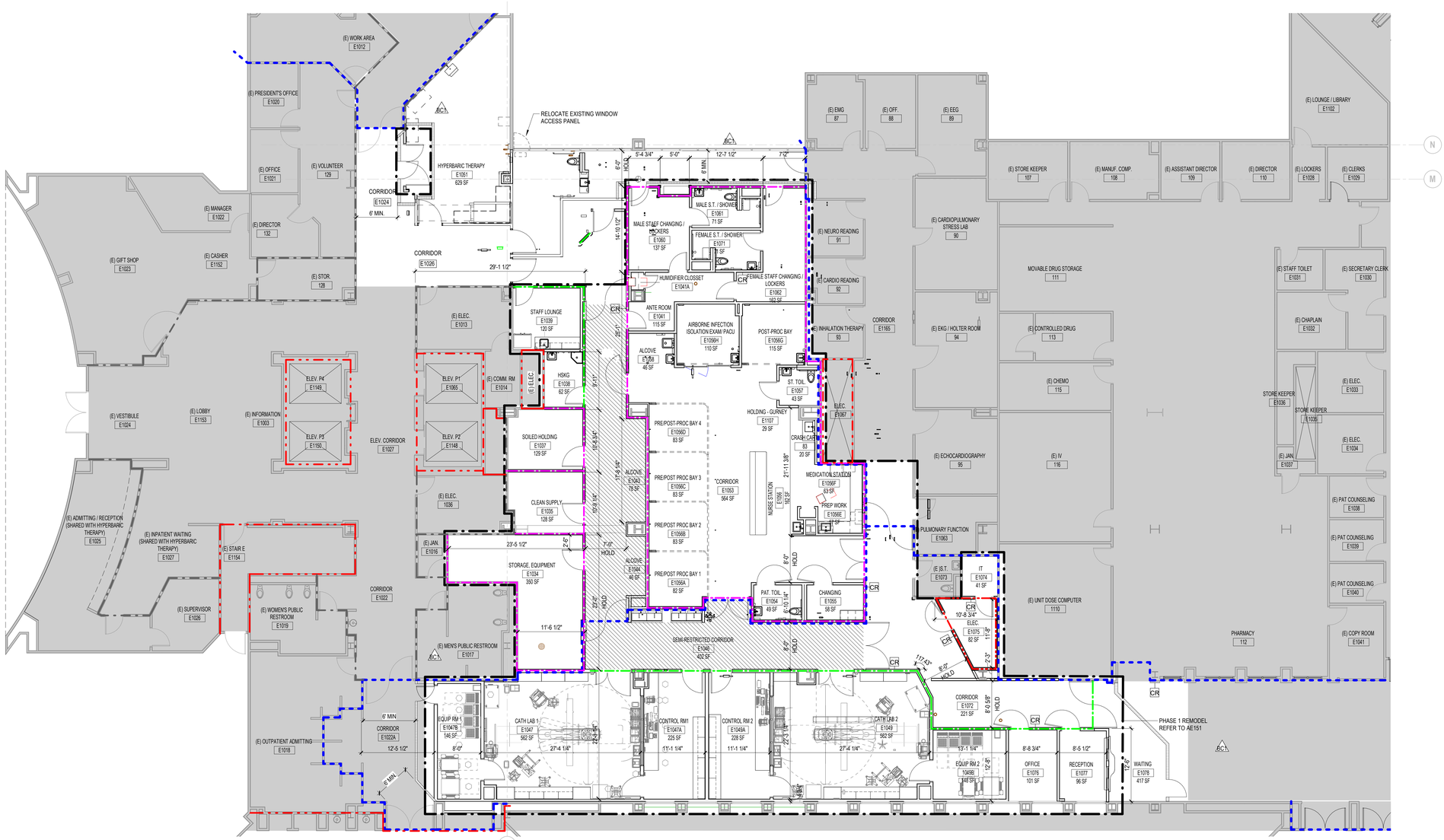
SHEET NUMBER
AE141

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E1 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 2- REMODEL PLAN

SCALE: 1/8" = 1'-0"



A1 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 1 - REMODEL PLAN

SCALE: 1/8" = 1'-0"

LEGEND

- 2 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 90 MINUTES.
- 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- 1 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- SMOKE PARTITION PER IBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- 1HR SMOKE BARRIER PER IBC SECTION 709. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- LEAD LINED WALL. SEE AE 141 FOR SHIELDING PLAN
- TEMPORARY CONSTRUCTION BARRIER, 1 HR FIRE RATED PLYWOOD PROTECTED OPENINGS. SEE DETAIL A1/AE511
- EXISTING AREA TO REMAIN, AREA NOT IN SCOPE OF WORK
- SEMI-RESTRICTED CORRIDOR
- PHASE 1 - SCOPE OF WORK
- PHASE 2 - SCOPE OF WORK

BC1

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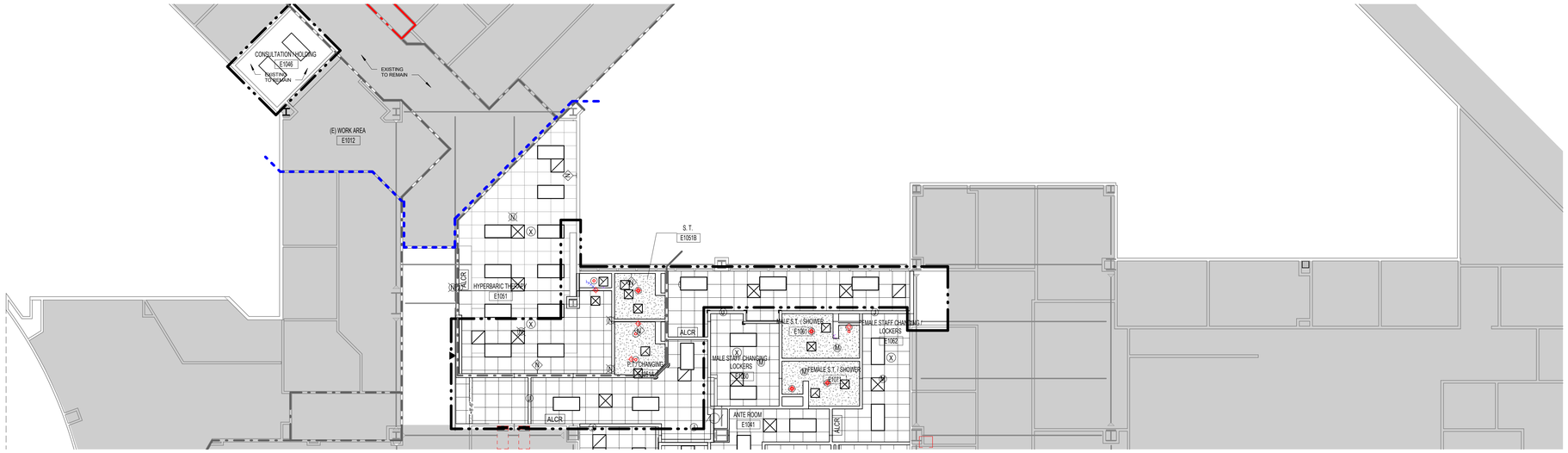
PHASING PLAN - LEVEL 1 - FLOOR PLAN - REMODEL

SHEET NUMBER

AE151

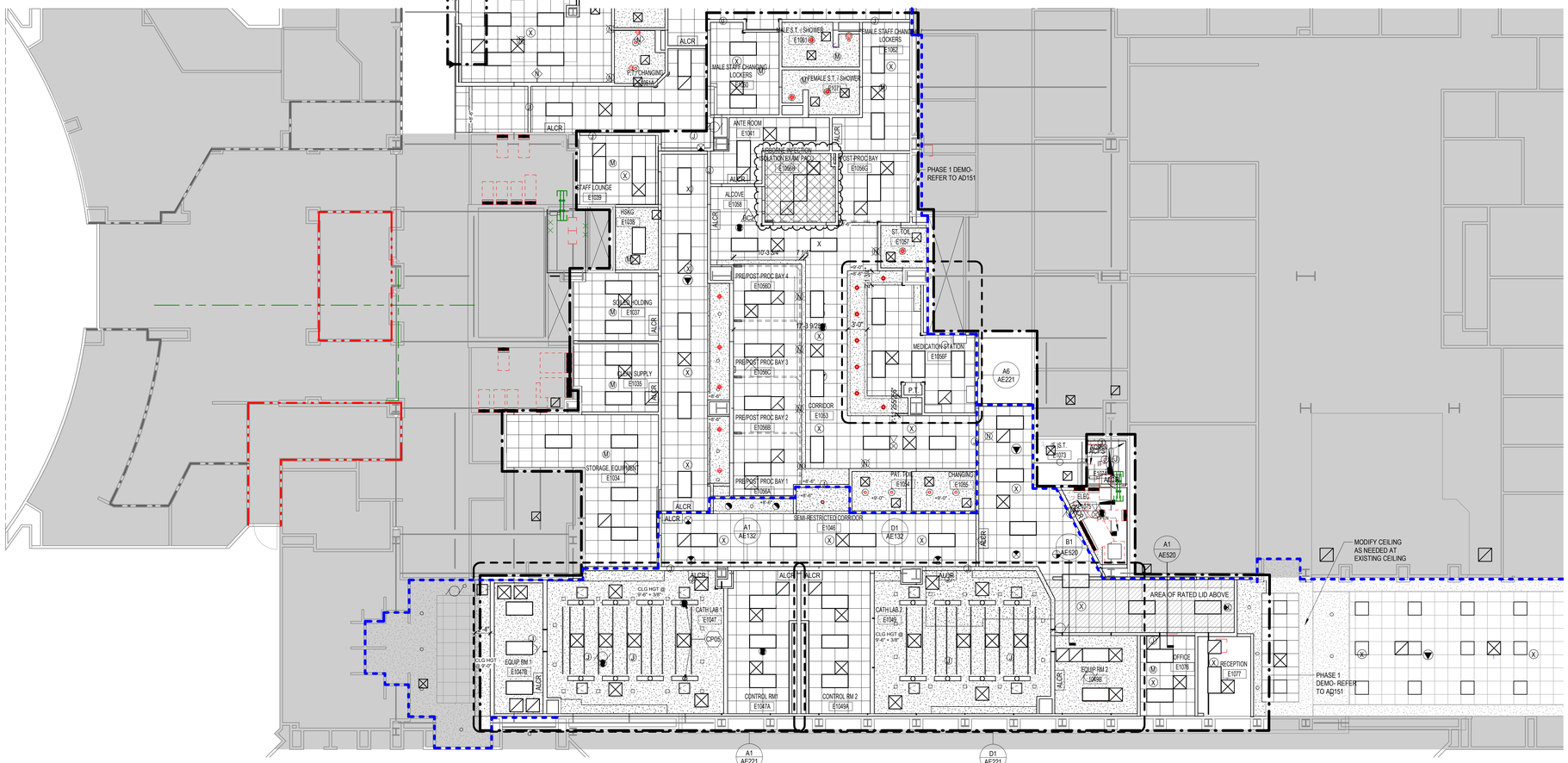
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D1 PARTIAL REFLECTED CEILING PLAN - LEVEL 1- REMODEL - PHASING 2

SCALE: 1/8" = 1'-0"



A1 PARTIAL REFLECTED CEILING PLAN - LEVEL 1- REMODEL - PHASING 1

SCALE: 1/8" = 1'-0"

CEILING LEGEND

- EXISTING LAY-IN TILE GRID CEILING
- NEW LAY-IN TILE GRID CEILING
- NEW LAY-IN TILE GRID CEILING, (HATCH INDICATES TUNNEL COORIDOR AREA)
- NEW LAY-IN TILE GRID CEILING, COMPLIANT FOR USE IN AIRBORNE INFECTION ISOLATION EXAM / PACU ROOM. NON-ABSORBING, NON-PERFORATED, CLEAN AND WASHABLE. LAY-IN TILES SHALL BE GASKETED. 6C2
- EXISTING PAINTED GYB. BD. CEILING
- NEW PAINTING GYP. BD. CEILING SEE DETAIL A1 & A4 ON AE519

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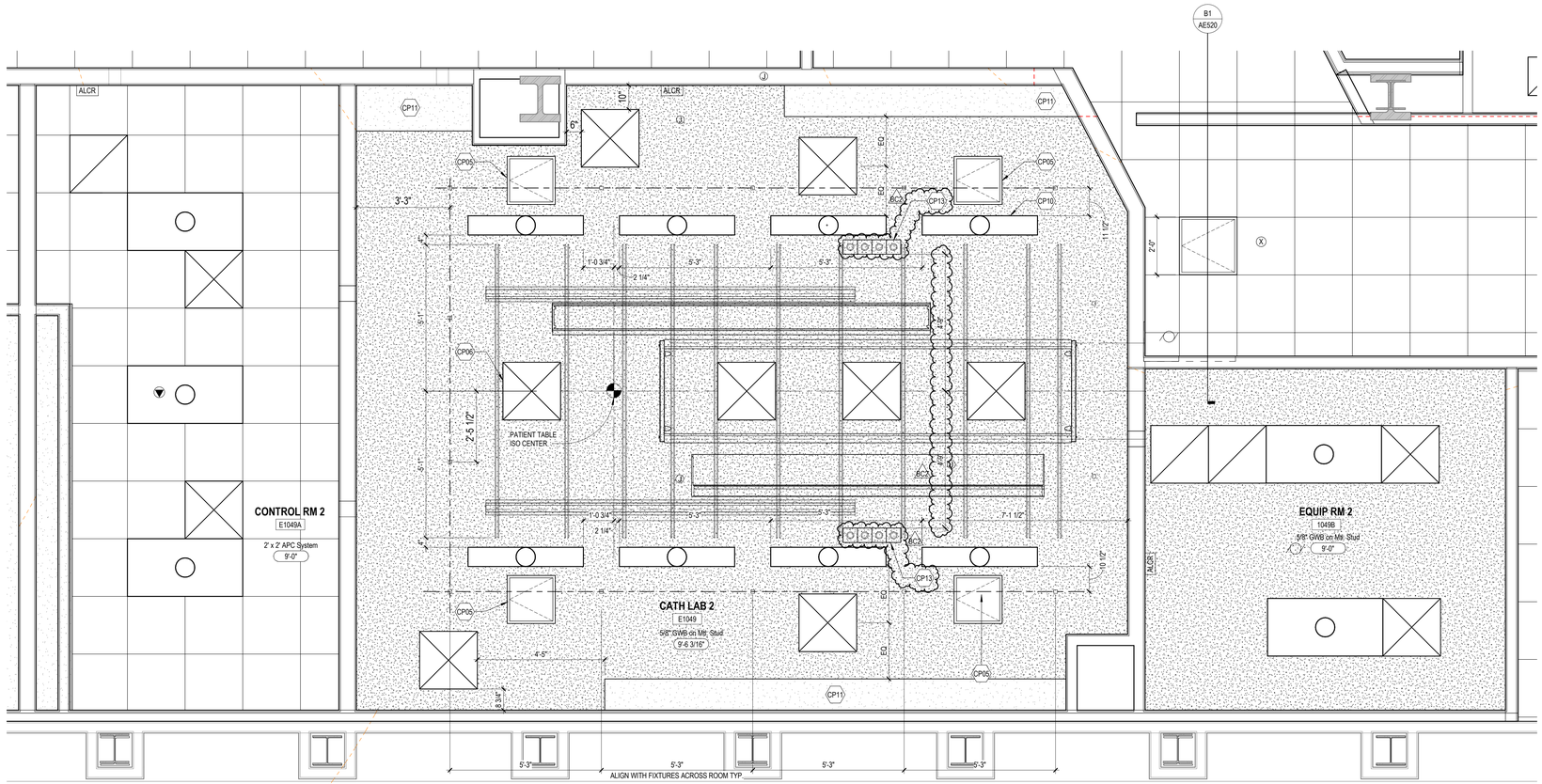
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SHEET NUMBER

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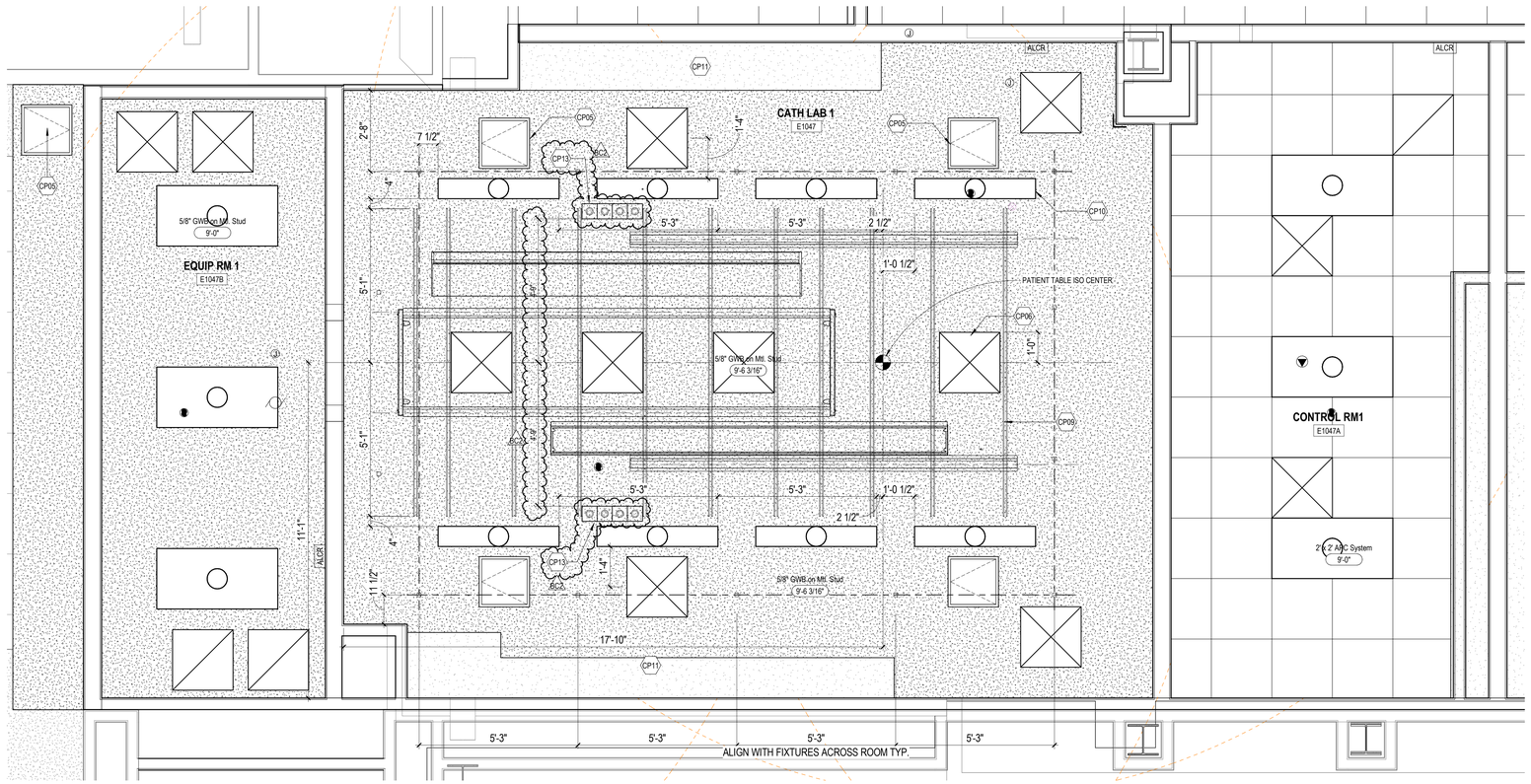
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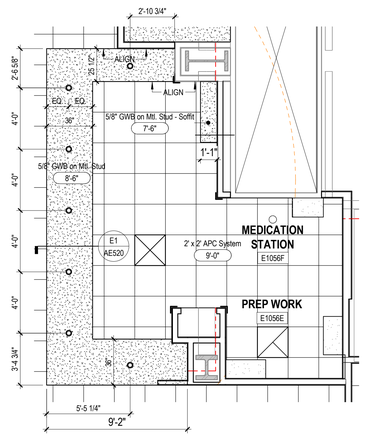
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SCALE: 1/2" = 1'-0"



A1 ENLARGED REFLECTED CEILING PLAN - CATH LAB 1

SCALE: 1/2" = 1'-0"



A6 ENLARGED REFLECTED CEILING PLAN - NURSE STATION

SCALE: 1/4" = 1'-0"

KEY NOTES - REMODEL

CP05	NEW 18 X 18 ACCESS PANELS. CONFIRM LOCATION PRIOR TO INSTALLATION.
CP06	DIFFUSER TYP - CENTER ON ISO CENTER AND BETWEEN RAILS AS SHOWN
CP09	EQUIPMENT SUPPORT RAILS. COORDINATE LOCATION WITH EQUIPMENT SHOP DRAWINGS
CP10	RECESSED LIGHT FIXTURE - SEE ELECTRICAL FOR ADDITIONAL INFORMATION
CP11	SOFFIT REFR TO BE PER CASEWORK DETAILS
CP13	CEILING MED GAS OUTLET LOCATIONS, REFER TO PLUMBING PE202

BC2

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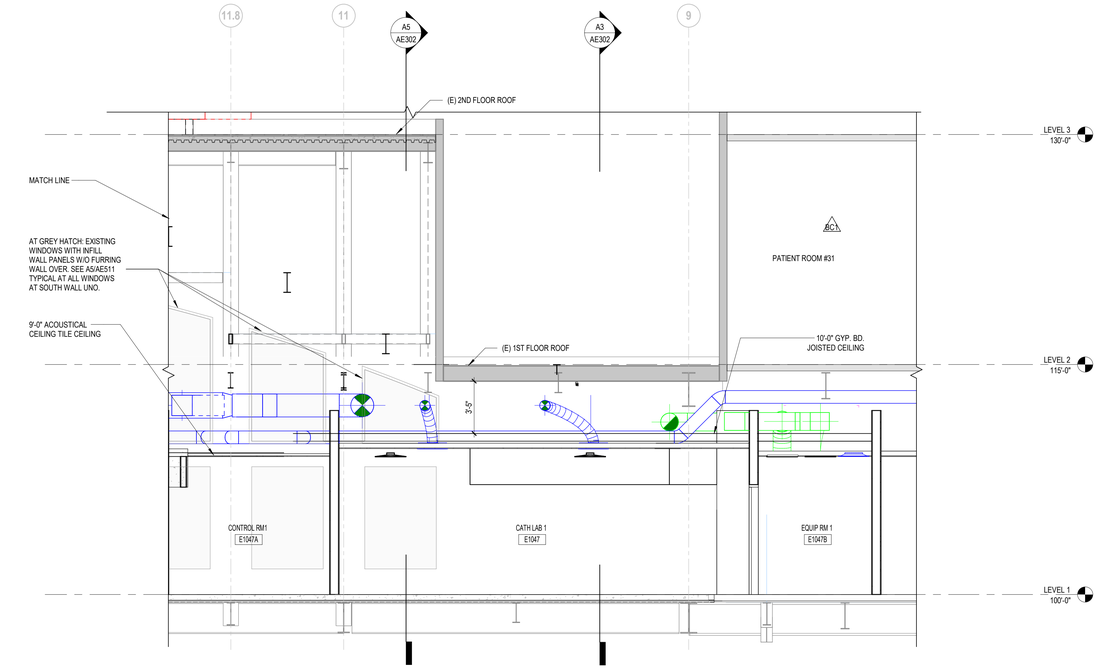
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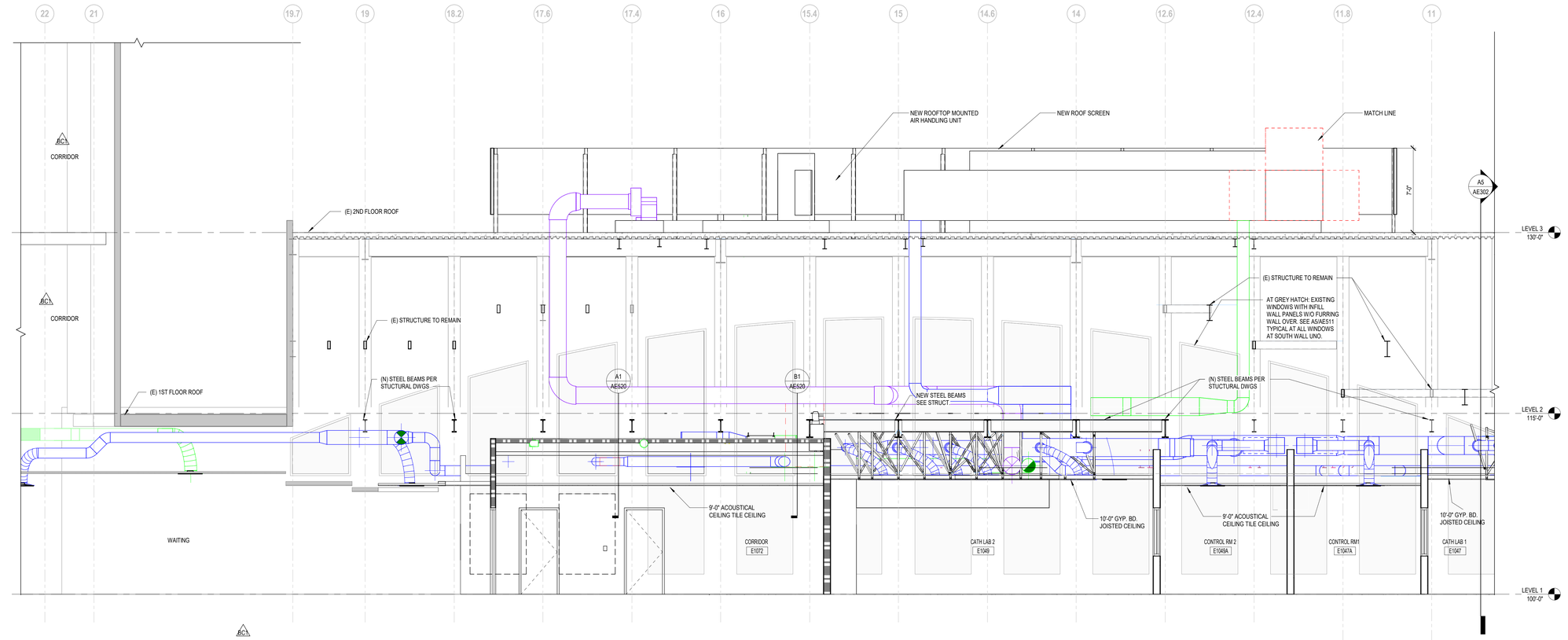
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D1 BUILDING SECTION @ CATH LAB 1 - EAST/WEST
SCALE: 1/4" = 1'-0"



A1 BUILDING SECTION @ CATH LAB 2 - EAST/WEST
SCALE: 1/4" = 1'-0"

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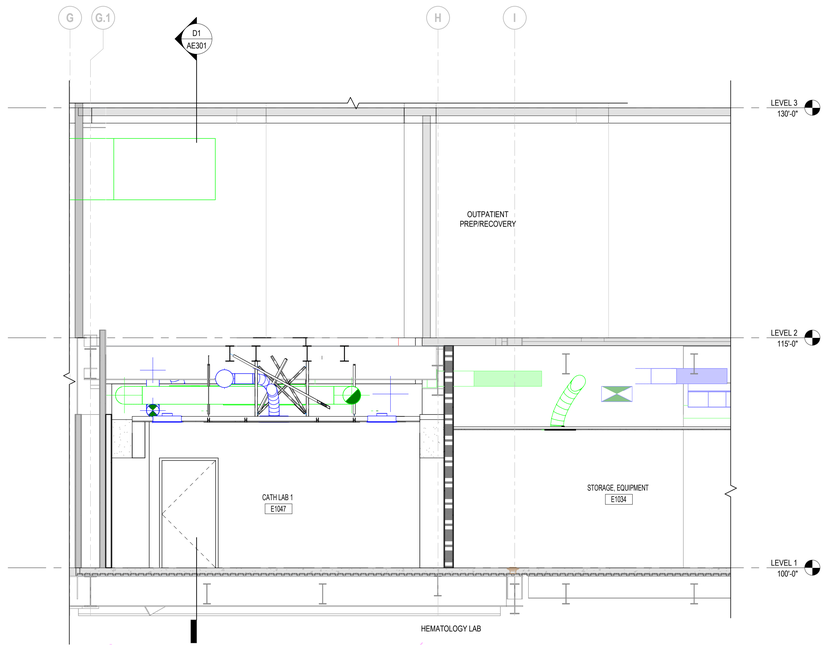
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PARTIAL BUILDING SECTION @ CATH LAB - EAST/WEST

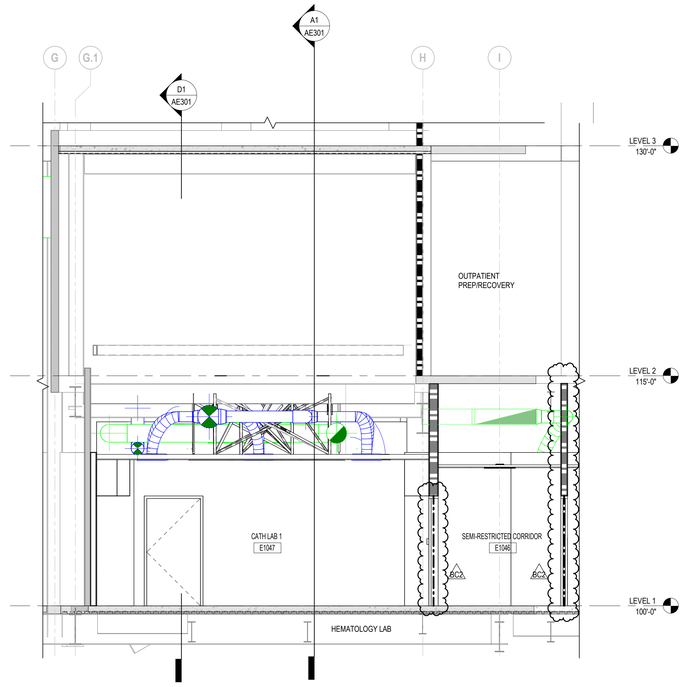
SHEET NUMBER

AE301

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A3 **CATH LAB NORTH/SOUTH-**
SCALE: 1/4" = 1'-0"



A5 **BUILDING SECTION @ CATH LAB 1 NORTH/SOUTH**
SCALE: 1/4" = 1'-0"

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C-27292
REN. 7/31/25
STATE OF CALIFORNIA

CONSULTANT

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FM08430011869	047-10071-002

SHEET NAME

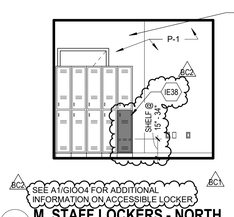
PARTIAL BUILDING SECTION @ CATH LAB - NORTH/SOUTH

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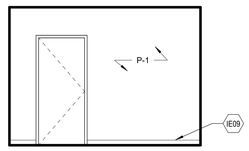
AE302

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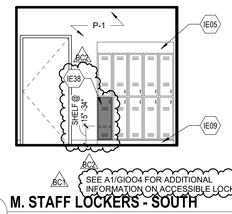
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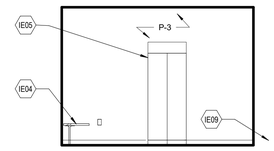
F1 M. STAFF LOCKERS - NORTH
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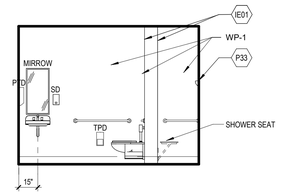
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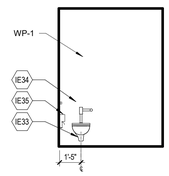
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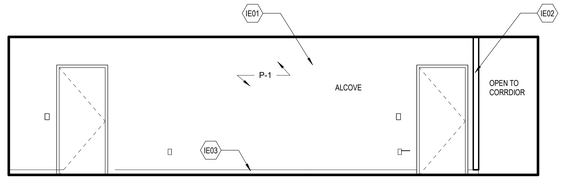
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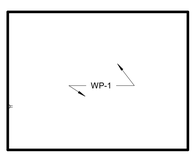
F5 M. STAFF TOILET/ SHOWER - NORTH
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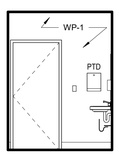
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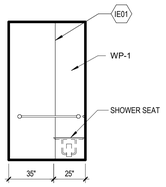
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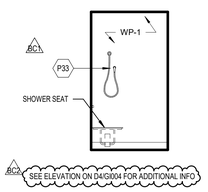
E2 M. STAFF TOILET/ SHOWER -SOUTH
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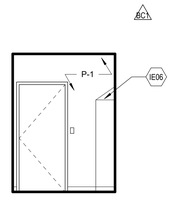
E3 M. STAFF TOILET- WEST
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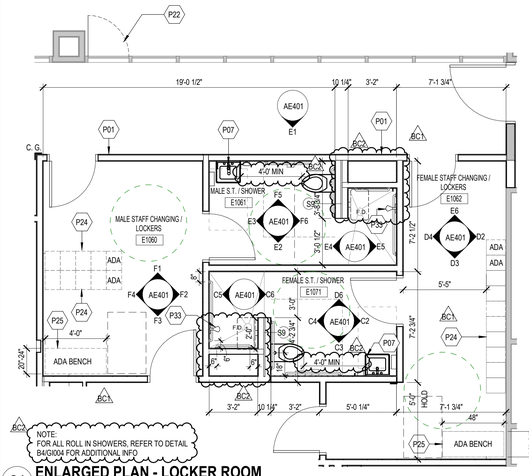
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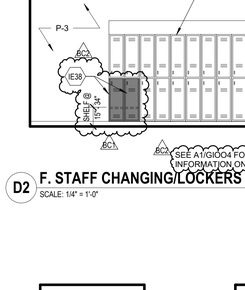
E5 M. STAFF SHOWER - EAST
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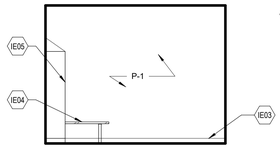
E6 F. STAFF CHANGING / LOCKERS - NORTH
SCALE: 1/4" = 1'-0"



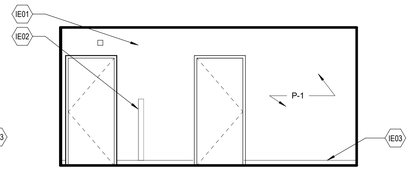
C1 ENLARGED PLAN - LOCKER ROOM
SCALE: 1/4" = 1'-0"



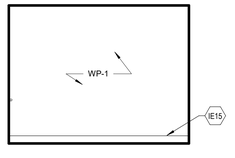
D2 F. STAFF CHANGING/LOCKERS - EAST
SCALE: 1/4" = 1'-0"



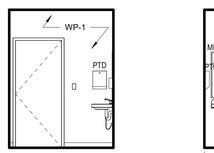
D3 F. STAFF CHANGING/LOCKERS - SOUTH
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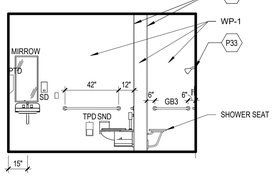
D4 F. STAFF CHANGING/LOCKERS - WEST
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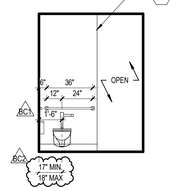
D6 F. STAFF TOILET/SHOWER - NORTH
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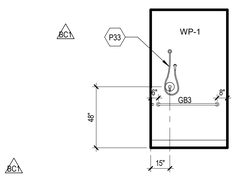
C2 F. STAFF TOILET - EAST
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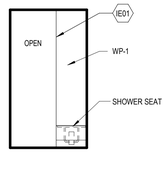
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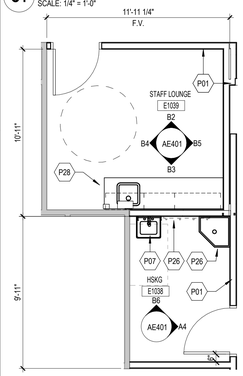
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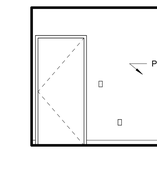
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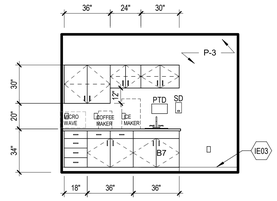
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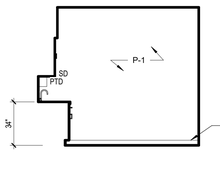
B1 ENLARGED PLAN - STAFF LOUNGE/HSKP
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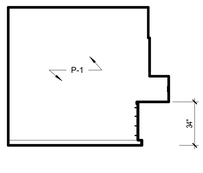
B2 STAFF LOUNGE - NORTH
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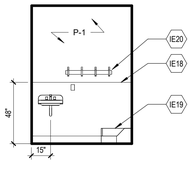
B3 STAFF LOUNGE - SOUTH
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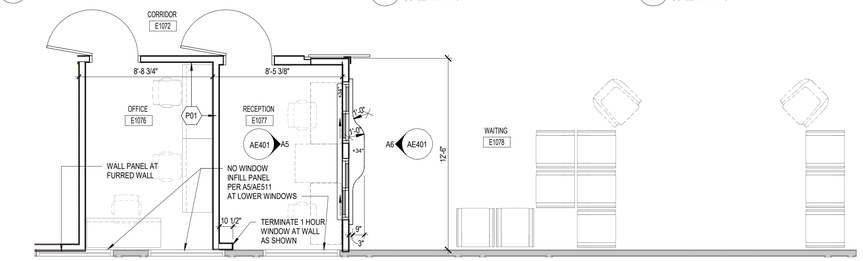
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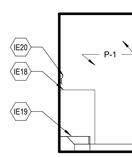
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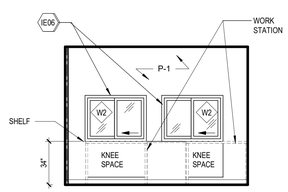
B6 HSKG - NORTH
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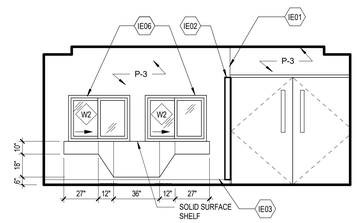
A1 ENLARGED PLAN - WAITING/OFFICE
SCALE: 1/4" = 1'-0"



A4 HSKG - EAST
SCALE: 1/4" = 1'-0"



A5 RECEPTION - EAST
SCALE: 1/4" = 1'-0"



A6 WAITING - WEST
SCALE: 1/4" = 1'-0"

SHEET NOTES

1. REFER SHEET GI003 FOR MOUNTING HEIGHTS
2. REFER TO IN SHEETS FOR FINISH SCHEDULE AND FINISH PLANS
3. REFER TO SHEET EQ SHEETS FOR EQUIPMENT SCHEDULE AND EQUIPMENT PLAN
4. REFER TO SHEET IE601 FOR TOILET ACCESSORIES SCHEDULE
5. CONTRACTOR TO INSTALL ALL WALL MOUNTED DEVICE J-BOXES, SWITCHES AND POWER OUTLETS FOR USER REVIEW AND SIGN-OFF PRIOR TO RUNNING NEW CONDUITS
6. REFER TO SHEET AE601 FOR DOOR SCHEDULE AND DOOR PLAN
7. ALL NEW WOOD MEMBERS FOR RF SHIELDING SHALL BE FIRE TREATED WOOD, TYP.

KEY NOTES - ENLARGED PLAN

P01	NEW RATED WALL, SEE D2/AE511
P07	NEW WALL MOUNTED LAVATORY, SEE PLUMBING
P22	RELOCATED WINDOW WITH ACCESS TO ROOF BELOW
P24	PROVIDE METAL LOCKER WITH SLOPE TOP
P25	PROVIDE BENCH, SEE ANCHORAGE DETAIL A4/AE541
P26	PROVIDE MOP RACK
P28	NEW CABINWORK
P33	SHOWER SPRAY UNIT WITH MIN 59" HOSE TO BE USABLE IN FIXED AND HANDHELD POSITIONS

KEY NOTES - INTERIOR ELEVATION

IE01	LINE OF WALL
IE02	CORNER GUARD, SEE INTERIOR DWG
IE03	NEW BASE, SEE INTERIOR DWG
IE04	NEW ADA BENCH, SEE DETAIL A4/AE541
IE05	METAL LOCKER WITH SLOPE TOP
IE06	NEW SLIDING WINDOW WITH LOCK
IE09	NEW BASE (SEE INTERIOR DWG)
IE15	NEW 6" COVE BASE (SEE INTERIOR DWG)
IE18	WALL PROTECTION (WP-1), SEE INTERIOR DWG
IE19	NEW MOP SINK, SEE PLUMBING DWG
IE20	NEW UTILITY RACK WITH MOP HOOK. PROVIDE BACKING
IE33	NEW WATERCLOSET
IE34	GRAB BAR
IE35	TOILET PAPER DISENSER
IE38	ADA LOCKER WITH ISA SIGN (SEE ELEVATION A1/GI004)

TOILET ACCESSORIES (SEE IE601)

GB	HORIZONTAL GRAB BAR, 24"
GB1	HORIZONTAL GRAB BAR COMBINATION, 2 PIECE
GB2	VERTICAL GRAB BAR, 18"
GB3	GRAB BAR @ SHOWER AREA, 2 PIECE
GB4	HORIZONTAL GRAB BAR, 24"
GB5	HORIZONTAL GRAB BAR, 36"
MR	MIRROR, 18"X36" SSTL FRAME
MR1	MIRROR, 24"X36" SSTL FRAME
PTD	PAPER TOWEL DISPENSER, SURFACE MOUNTED
SD	SOAP DISPENSER
SND	SANITARY NAPKIN DISPENSER, SURFACE MOUNTED
TPD	TOILET TISSUE DISPENSER, DOUBLE ROLL, VERT

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

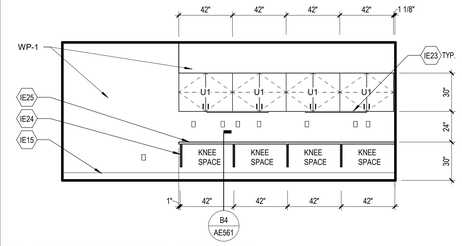
ENLARGED PLANS & ELEVATIONS - WAITING/OFFICE, STAFF LOUNGE AND LOCKERS

SHEET NUMBER

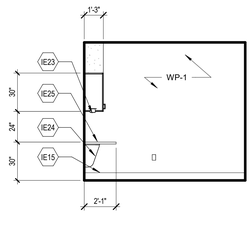
AE401

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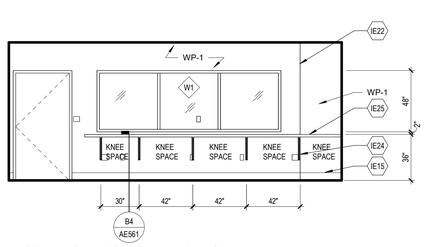
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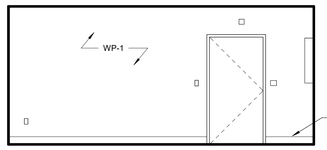
F1 CONTROL ROOM #1 - EAST VIEW
SCALE: 1/4" = 1'-0"



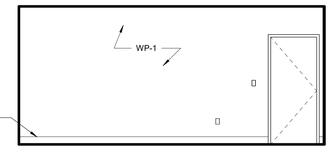
F2 CONTROL ROOM #1 - SOUTH VIEW
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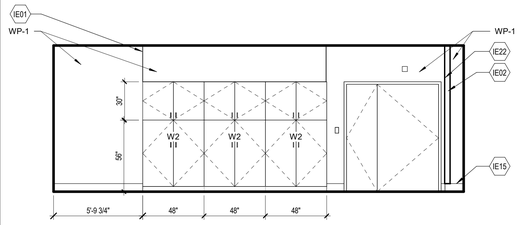
F3 CONTROL ROOM #1 - WEST VIEW
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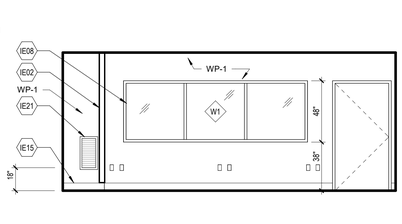
F4 EQUIPMENT ROOM #1 - EAST VIEW
SCALE: 1/4" = 1'-0"



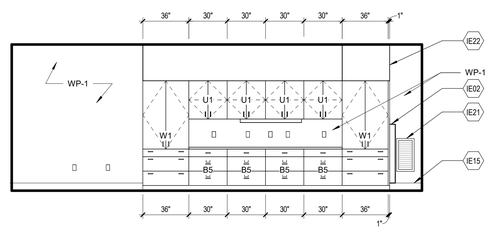
F6 EQUIPMENT ROOM #1 - WEST VIEW
SCALE: 1/4" = 1'-0"



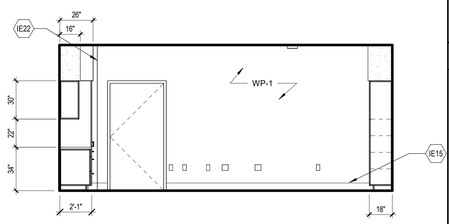
E1 CATH LAB # 1 - NORTH VIEW
SCALE: 1/4" = 1'-0"



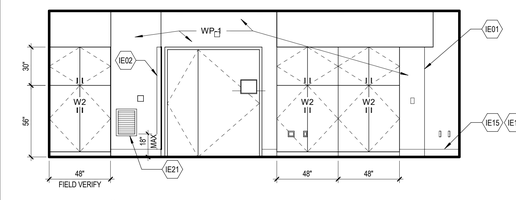
E2 CATH LAB #1 - EAST VIEW
SCALE: 1/4" = 1'-0"



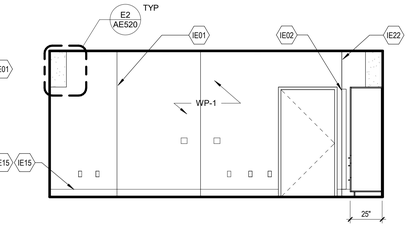
E3 CATH LAB #1 - SOUTH VIEW
SCALE: 1/4" = 1'-0"



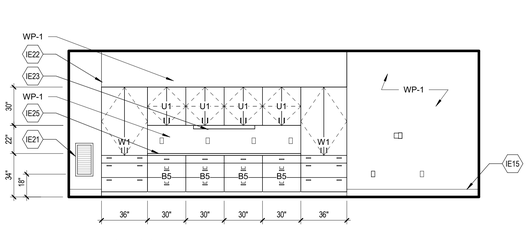
E5 CATH LAB #1 - WEST VIEW
SCALE: 1/4" = 1'-0"



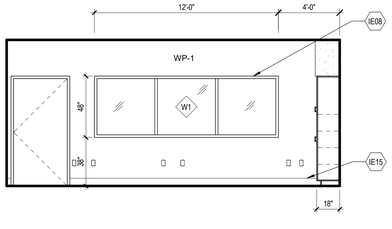
D1 CATH LAB #2 - NORTH VIEW
SCALE: 1/4" = 1'-0"



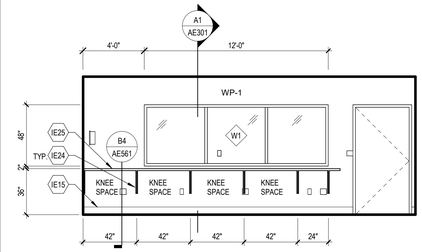
D2 CATH LAB #2 - EAST VIEW
SCALE: 1/4" = 1'-0"



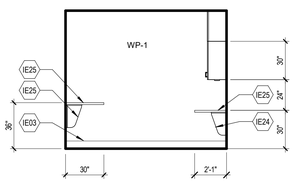
D3 CATH LAB #2 - SOUTH VIEW
SCALE: 1/4" = 1'-0"



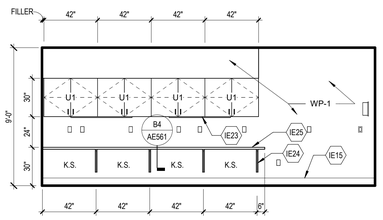
D5 CATH LAB #2 - WEST VIEW
SCALE: 1/4" = 1'-0"



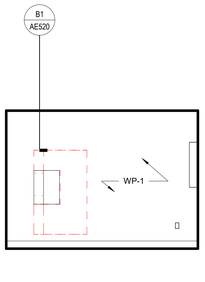
C1 CONTROL ROOM #2 - EAST VIEW
SCALE: 1/4" = 1'-0"



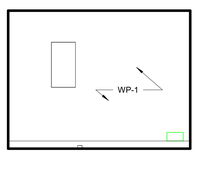
C2 CONTROL ROOM #2 - SOUTH VIEW
SCALE: 1/4" = 1'-0"



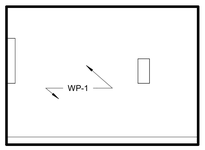
C3 CONTROL ROOM #2 - WEST VIEW
SCALE: 1/4" = 1'-0"



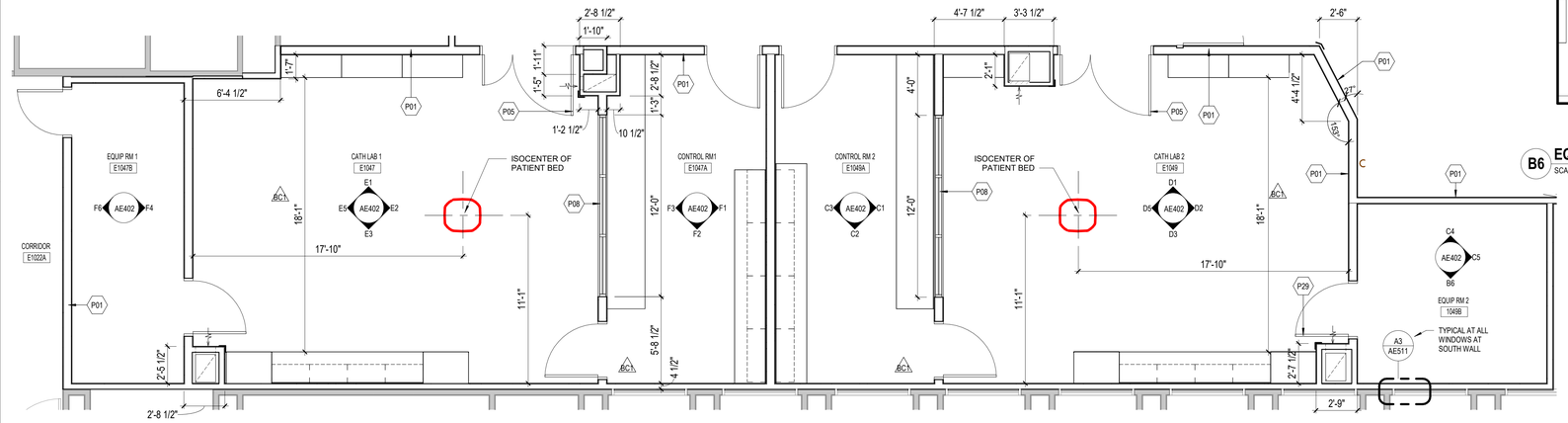
C4 EQUIPMENT RM #2 - NORTH VIEW
SCALE: 1/4" = 1'-0"



C5 EQUIPMENT RM #2 - EAST VIEW
SCALE: 1/4" = 1'-0"



B6 EQUIPMENT RM #2 - SOUTH VIEW
SCALE: 1/4" = 1'-0"



A1 PARTIAL FLOOR PLAN - CATH LAB, CONTROL RM AND EQUIP STORAGE RM
SCALE: 1/4" = 1'-0"

SHEET NOTES

1. REFER SHEET G003 FOR MOUNTING HEIGHTS
2. REFER TO IN SHEETS FOR FINISH SCHEDULE AND FINISH PLANS
3. REFER TO SHEET EQ SHEETS FOR EQUIPMENT SCHEDULE AND EQUIPMENT PLAN
4. REFER TO SHEET IE601 FOR TOILET ACCESSORIES SCHEDULE
5. CONTRACTOR TO INSTALL ALL WALL MOUNTED DEVICE J-BOXES, SWITCHES AND POWER OUTLETS FOR USER REVIEW AND SIGN-OFF PRIOR TO RUNNING NEW CONDUITS
6. REFER TO SHEET AE601 FOR DOOR SCHEDULE AND DOOR PLAN
7. ALL NEW WOOD MEMBERS FOR RF SHIELDING SHALL BE FIRE TREATED WOOD, TYP.

KEY NOTES - ENLARGED PLAN

P01	NEW RATED WALL, SEE D2/AE511
P05	NEW LEAD SHIELDED 20 MIN. RATED ENTRY DOOR, (1) 48" LEAF AND (1) 24" LEAF
P08	NEW LEAD GLASS WINDOW AND FRAME
P29	PROVIDE ADA LOCKER AT HATCHED LOCATION

KEY NOTES - ELEVATION

IE01	LINE OF WALL
IE02	CORNER GUARD, SEE INTERIOR DWG
IE03	NEW BASE, SEE INTERIOR DWG
IE08	NEW LEAD SHIELDED GLASS WINDOW AND FRAME
IE15	NEW 6" COVE BASE (SEE INTERIOR DWG)
IE21	NEW LOW RETURN GRILLE (SEE MECH. DWG)
IE22	COLUMN ENCLOSURE
IE23	PROVIDE U.C. TASK LIGHT,TYP. (SEE ELEC. DWG)
IE24	PROVIDE SUPPORT BRACKETS, TYP. (SEE STRUCT. DWG)
IE25	PROVIDE SOLID SURFACE COUNTERTOP (SEE INTERIOR DWG)

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

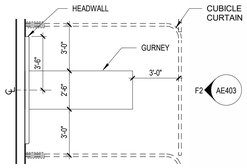
ENLARGED PLANS & ELEVATIONS - CATH LAB, CONTROL AND EQUIP RM

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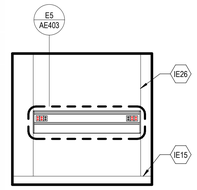
AE402

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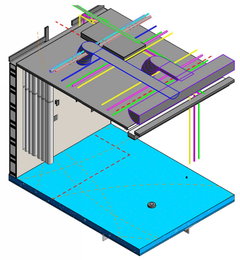
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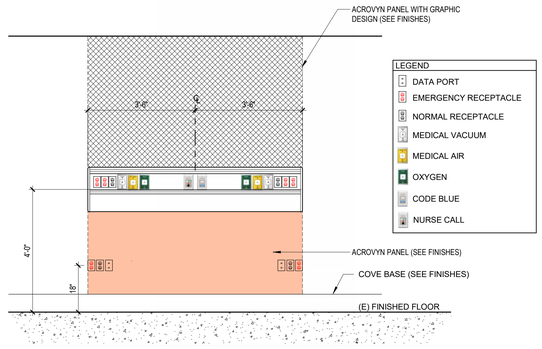
F1 ENLARGED PLAN - PROCEDURE RM (TYP.)
SCALE: 1/4" = 1'-0"



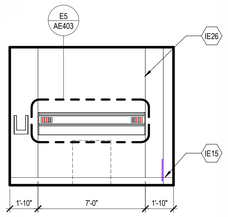
F2 PROCEDURE ROOM (TYP) - WEST VIEW
SCALE: 1/4" = 1'-0"



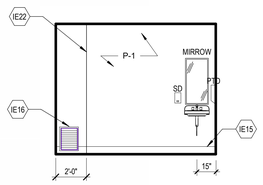
F3 PRE-PROCEDURE ROOM (TYP)
SCALE:



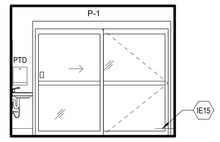
E5 HEADWALL ELEVATION - SINGLE TIERED W/O BED LOCATOR
SCALE: 1/2" = 1'-0"



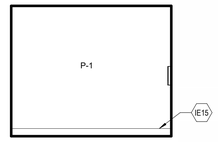
E1 ISOLATION - NORTH VIEW
SCALE: 1/4" = 1'-0"



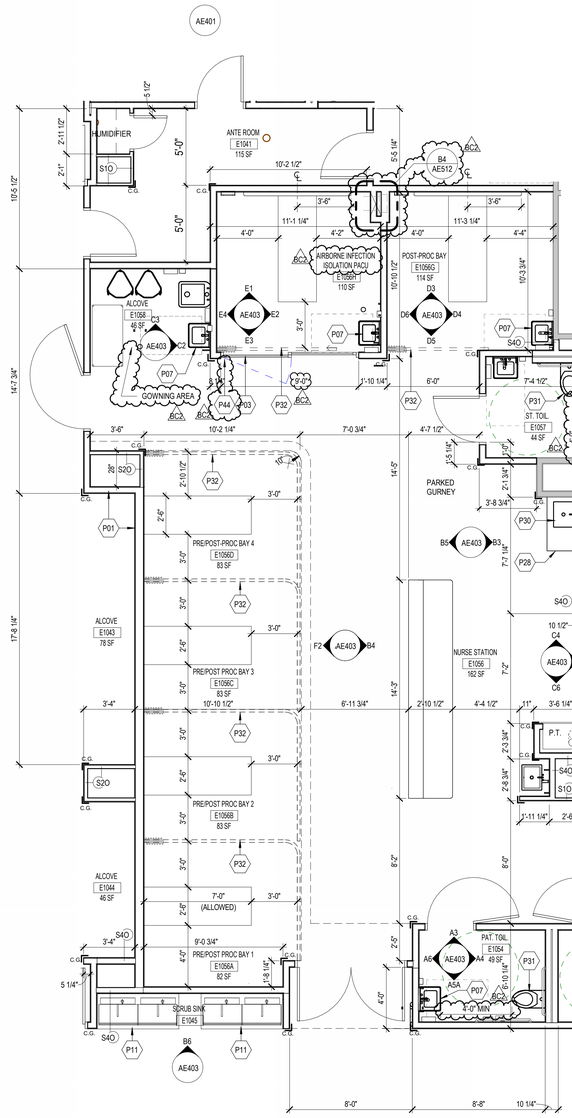
E2 ISOLATION - EAST VIEW
SCALE: 1/4" = 1'-0"



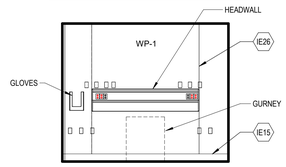
E3 ISOLATION - SOUTH VIEW
SCALE: 1/4" = 1'-0"



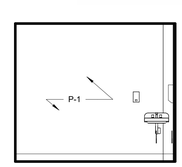
E4 ISOLATION - WEST VIEW
SCALE: 1/4" = 1'-0"



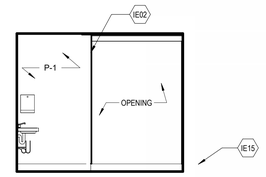
A1 ENLARGED FLOOR PLAN - PRE/POST PROCEDURE AREA
SCALE: 1/4" = 1'-0"



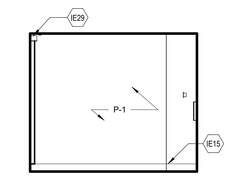
D3 POST-PROCEDURE BAY - NORTH
SCALE: 1/4" = 1'-0"



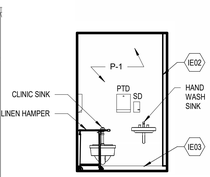
D4 POST-PROCEDURE BAY - EAST
SCALE: 1/4" = 1'-0"



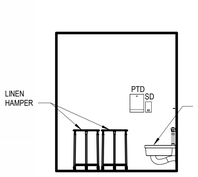
D5 POST-PROCEDURE BAY - SOUTH
SCALE: 1/4" = 1'-0"



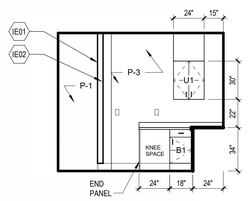
D6 POST PROCEDURE BAY - WEST
SCALE: 1/4" = 1'-0"



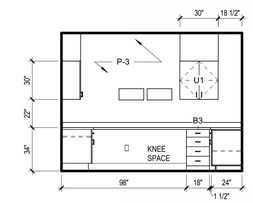
C2 ALCOVE AREA - EAST VIEW
SCALE: 1/4" = 1'-0"



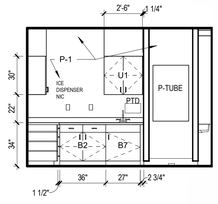
C3 UTILITY ALCOVE
SCALE: 1/4" = 1'-0"



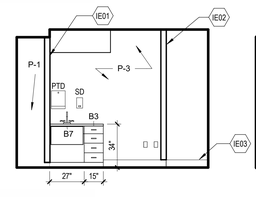
C4 MEDICATION STATION - NORTH
SCALE: 1/4" = 1'-0"



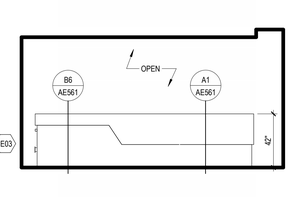
C5 MEDICATION STATION - EAST
SCALE: 1/4" = 1'-0"



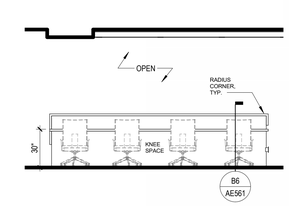
C6 PREP WORK AREA - SOUTH
SCALE: 1/4" = 1'-0"



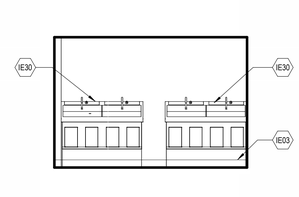
B3 NURSE WORK AREA - EAST
SCALE: 1/4" = 1'-0"



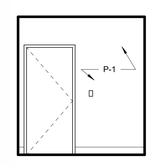
B4 NURSE STATION - WEST
SCALE: 1/4" = 1'-0"



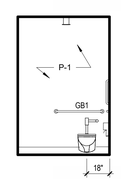
B5 NURSE STATION - EAST
SCALE: 1/4" = 1'-0"



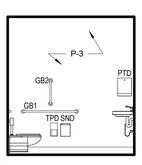
B6 SCUB SINK - NORTH VIEW
SCALE: 1/4" = 1'-0"



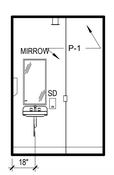
A3 PATIENT TOILET - NORTH
SCALE: 1/4" = 1'-0"



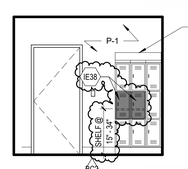
A4 PATIENT TOILET - EAST
SCALE: 1/4" = 1'-0"



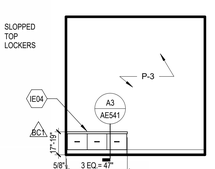
A5A PATIENT TOILET - SOUTH
SCALE: 1/4" = 1'-0"



A6 PATIENT TOILET - WEST
SCALE: 1/4" = 1'-0"



A6A CHANGING - NORTH VIEW
SCALE: 1/4" = 1'-0"



A7 CHANGING - SOUTH VIEW
SCALE: 1/4" = 1'-0"

SHEET NOTES

1. REFER SHEET G1003 FOR MOUNTING HEIGHTS
2. REFER TO IN SHEETS FOR FINISH SCHEDULE AND FINISH PLANS
3. REFER TO SHEET EQ SHEETS FOR EQUIPMENT SCHEDULE AND EQUIPMENT PLAN
4. REFER TO SHEET IE601 FOR TOILET ACCESSORIES SCHEDULE
5. CONTRACTOR TO INSTALL ALL WALL MOUNTED DEVICE J-BOXES, SWITCHES AND POWER OUTLETS FOR USER REVIEW AND SIGN-OFF PRIOR TO RUNNING NEW CONDUITS
6. REFER TO SHEET AE601 FOR DOOR SCHEDULE AND DOOR PLAN
7. ALL NEW WOOD MEMBERS FOR RF SHIELDING SHALL BE FIRE TREATED WOOD, TYP.

KEY NOTES - ENLARGED PLAN

P01	NEW RATED WALL, SEE D2/AE511
P03	NEW GLASS SLIDING DOOR WITH BREAKAWAY
P07	NEW WALL MOUNTED LAVATORY, SEE PLUMBING
P11	PROVIDE DOUBLE BAY SCRUB SINK, SEE PLUMGING DWG
P28	NEW CASEWORK
P29	PROVIDE ADA LOCKER AT HATCHED LOCATION WITH ISA SIGN (SEE ELEVATION A1/GI004)
P30	NEW SINK, SEE PLUMBING DWG
P31	NEW WATER CLOSET
P32	NEW FLOOR PROTECTION, SEE DETAIL E6/AE520
P44	PROVIDE SIGNAGE AT AIRBORNE INFECTION ISOLATION PACU LABELED AS "AIRBORNE INFECTION ISOLATION PACU" PER CODE

KEY NOTES - ELEVATION

IE01	LINE OF WALL
IE02	CORNER GUARD, SEE INTERIOR DWG
IE03	NEW BASE, SEE INTERIOR DWG
IE04	NEW ADA BENCH, SEE DETAIL A4/AE541
IE15	NEW 6" COVE BASE (SEE INTERIOR DWG)
IE16	NEW LOW WALL RETURN AIR GRILLE, SEE MECHANICAL
IE22	COLUMN ENCLOSURE
IE26	WALL PROTECTION (WP-2), SEE INTERIOR DWG
IE29	NEW CUBICLE CURTAIN (SEE DETAIL E6/AE520)
IE30	NEW DOUBLE BAY SCRUB SINK (SEE PLUMBING DWG)
IE38	ADA LOCKER WITH ISA SIGN (SEE ELEVATION A1/GI004)

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
ENLARGED PLANS & ELEVATIONS - PRE/POST PROCEDURE AREA

SHEET NUMBER
AE403

Riverside University HEALTH SYSTEM
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER
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ARCHITECT STAMP
LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

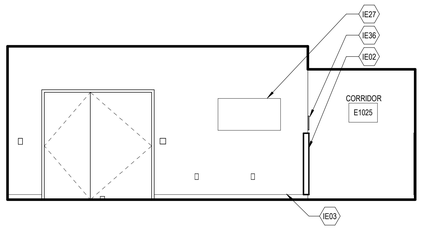
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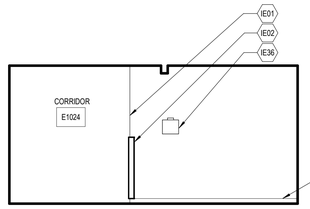
KEY PLAN

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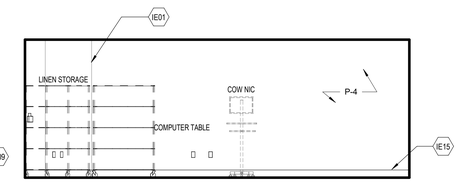
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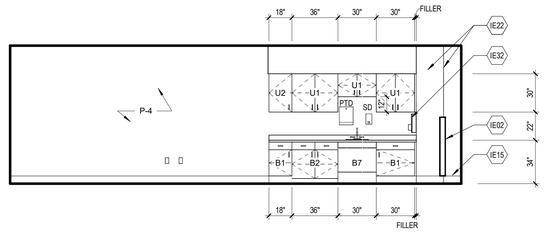
E1 HYPERBARIC CORRIDOR - EAST VIEW
SCALE: 1/4" = 1'-0"



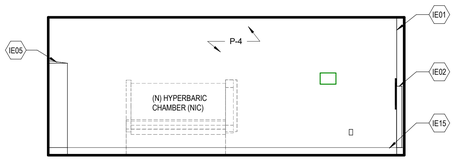
E2 HYPERBARIC CORRIDOR - NORTH VIEW
SCALE: 1/4" = 1'-0"



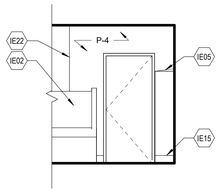
E3 HYPERBARIC THERAPY - NORTHWEST VIEW
SCALE: 1/4" = 1'-0"



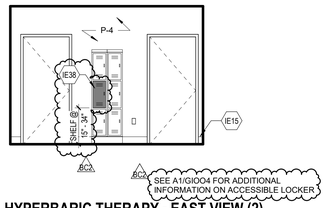
E5 HYPERBARIC THERAPY - EAST VIEW
SCALE: 1/4" = 1'-0"



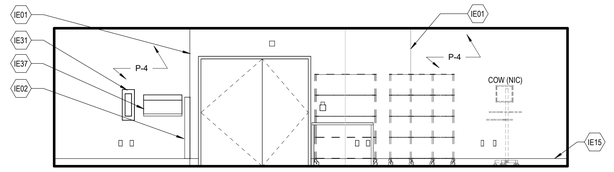
D1 HYPERVARIC THERAPY - SOUTH VIEW
SCALE: 1/4" = 1'-0"



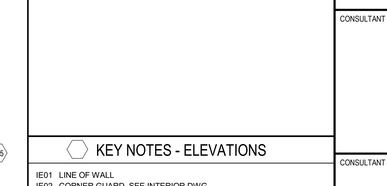
D2 HYPERBARIC THERAPY - NORTH VIEW
SCALE: 1/4" = 1'-0"



D3 HYPERBARIC THERAPY - EAST VIEW (2)
SCALE: 1/4" = 1'-0"



D5 HYPERBARIC THERAPY - WEST VIEW
SCALE: 1/4" = 1'-0"



BC2 SEE A1/GI004 FOR ADDITIONAL INFORMATION ON ACCESSIBLE LOCKER

SHEET NOTES

1. REFER SHEET GI003 FOR MOUNTING HEIGHTS
2. REFER TO IN SHEETS FOR FINISH SCHEDULE AND FINISH PLANS
3. REFER TO SHEET EQ SHEETS FOR EQUIPMENT SCHEDULE AND EQUIPMENT PLAN
4. REFER TO SHEET IE601 FOR TOILET ACCESSORIES SCHEDULE
5. CONTRACTOR TO INSTALL ALL WALL MOUNTED DEVICE J-BOXES, SWITCHES AND POWER OUTLETS FOR USER REVIEW AND SIGN-OFF PRIOR TO RUNNING NEW CONDUITS
6. REFER TO SHEET AE601 FOR DOOR SCHEDULE AND DOOR PLAN
7. ALL NEW WOOD MEMBERS FOR RF SHIELDING SHALL BE FIRE TREATED WOOD, TYP.

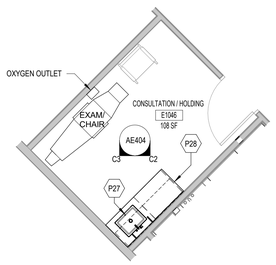
KEY NOTES - ENLARGED PLAN

P01	NEW RATED WALL, SEE D2/AE511
P24	PROVIDE METAL LOCKER WITH SLOPE TOP
P25	PROVIDE BENCH, SEE ANCHORAGE DETAIL A4/AE541
P27	PROVIDE MOP SINK, SEE PLUMBING
P28	NEW CASEWORK
P31	NEW WATER CLOSET
P34	PROVIDE SIGNS PROHIBITING THE INTRODUCTION OF FLAMMABLE LIQUIDS, GASES, AND OTHER ARTICLES NOT PERMITTED BY CHAPTER 14 OF 2021 NFPA 99 INTO THE CHAMBER
P37	GAS CYLINDER STORAGE RACK, SEE DETAIL E6/AE541
P38	OXY VALVE CONNECTION FOR HYPERBARIC CHAMBER, SEE PLUMBING DWGS
P41	SEMI-RECESSED FIRE EXTINGUISHER CABINET, SEE DETAIL A6/AE541

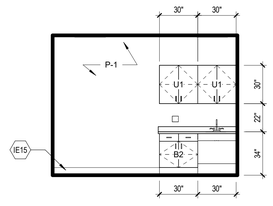
KEY NOTES - ELEVATIONS

IE01	LINE OF WALL
IE02	CORNER GUARD, SEE INTERIOR DWG
IE03	NEW BASE, SEE INTERIOR DWG
IE04	NEW ADA BENCH, SEE DETAIL A4/AE541
IE05	METAL LOCKER WITH SLOPE TOP
IE09	NEW BASE (SEE INTERIOR DWG)
IE15	NEW 6" COVE BASE (SEE INTERIOR DWG)
IE19	NEW MOP SINK, SEE PLUMBING DWG
IE20	NEW UTILITY RACK WITH MOP HOOK. PROVIDE BACKING
IE22	COLUMN ENCLOSURE
IE26	WALL PROTECTION (WP-2), SEE INTERIOR DWG
IE27	RELOCATED MESSAGE TV, PROVIDE BACKING AND POWER/DATA (SEE ELEC. DWG). COORDINATE LOCATION WITH OWNER
IE28	WALL PROTECTION (SEE INTERIOR DWG)
IE31	SEMI-RECESSED FIRE EXTINGUISHER CABINET
IE32	GLOVE DISPENSOR
IE36	RELOCATED ZONE VALVE BOX (SEE PLUMBING DWG)
IE37	LEAD APRON RACK
IE38	ADA LOCKER WITH ISA SIGN (SEE ELEVATION A1/GI004)

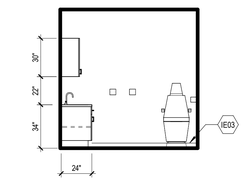
BC1 BC2



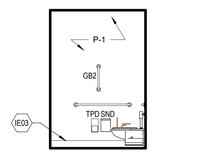
C1 ENLARGED PLAN - CONSULTATION RM
SCALE: 1/4" = 1'-0"



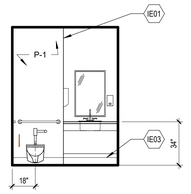
C2 CONSULTATION RM - EAST
SCALE: 1/4" = 1'-0"



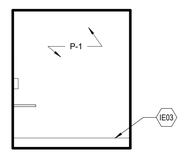
C3 CONSULTATION RM - WEST
SCALE: 1/4" = 1'-0"



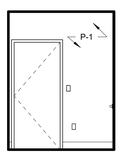
C4 PAT TOIL E1051B - NORTH
SCALE: 1/4" = 1'-0"



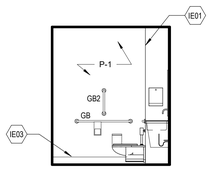
C5 PAT TOIL E1051B - EAST
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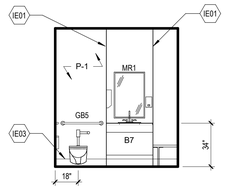
C6 PAT TOIL E1051B - SOUTH
SCALE: 1/4" = 1'-0"



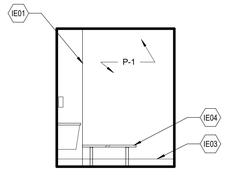
B3 PAT TOIL E1051B - WEST
SCALE: 1/4" = 1'-0"



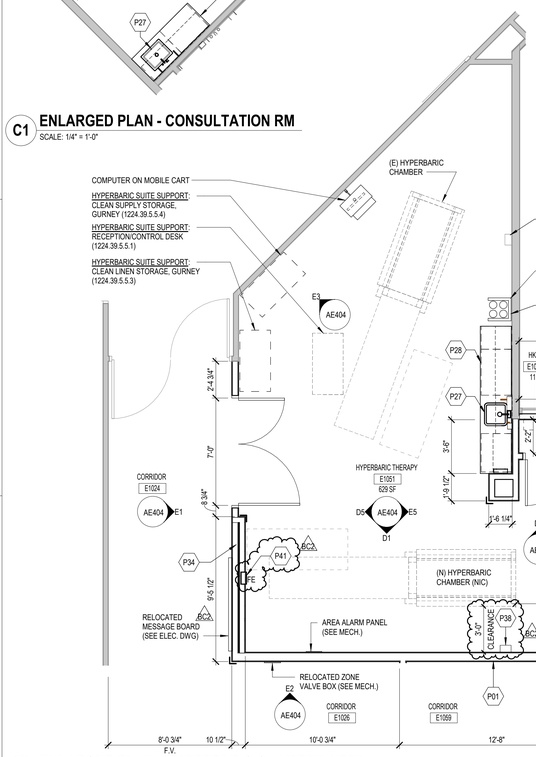
B4 STAFF TOILET - NORTH
SCALE: 1/4" = 1'-0"



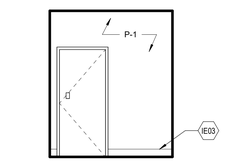
B5 STAFF TOILET - EAST VIEW
SCALE: 1/4" = 1'-0"



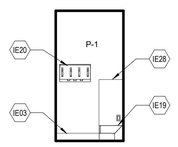
B6 STAFF TOILET - SOUTH
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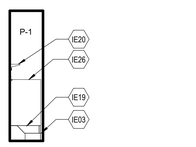
A1 ENLARGED PLAN - HYPERBARIC CHAMBER AREA
SCALE: 1/4" = 1'-0"



A4 STAFF TOILET - WEST VIEW
SCALE: 1/4" = 1'-0"



A5 HSKG - NORTH VIEW
SCALE: 1/4" = 1'-0"



A6 HSKG - EAST VIEW
SCALE: 1/4" = 1'-0"

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. KLEIN C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

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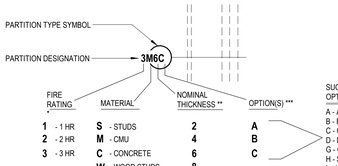
ENLARGED PLANS & ELEVATIONS - HYPERBARIC CHAMBER

SHEET NUMBER

AE404

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8/13/2024 11:25:22 AM Autodesk Docs://047-10071-002_RUHS-TCI-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt



* - DESIGNATION NOT INDICATED FOR NON-RATED PARTITIONS

** - DESIGNATION NOT INDICATED FOR PROJECT STANDARD THICKNESS

*** - DESIGNATION NOT INDICATED IF OPTIONS ARE NOT APPLICABLE; ONE OR TWO OPTION DESIGNATORS MAY BE USED.

SUGGESTED OPTIONS LIST

A - ACOUSTICAL INSULATION
B - BOTH FACES
C - GWB TO 6" ABOVE CEILING
D - DOUBLE WALL
G - GYPSUM WALL BOARD (FIRE RATED)
H - SHAFTWALL
L - LEAD LINED
O - ONE FACE ONLY
P - PARTIAL HEIGHT PARTITION
R - RIGID INSULATION W/ GWB COVERING
S - SMOKE PARTITION / BARRIER
T - TEMPORARY PARTITION
Z - STAGGERED STUDS (ACOUSTICAL)
2 - 2 LAYERS GWB

GENERAL NOTES:

1. PROVIDE MINIMUM 0.0312" STUDS @ WALLS TO RECEIVE FINISH (TILE, STONE, WOOD, ETC).
2. PROVIDE MINIMUM 0.0312" STUDS @ JAMBS OF DOOR AND FIXED GLASS FRAMES, @ OPEN PARTITION ENDS, AND WHERE PARTITION IS TO RECEIVE WALL MOUNTED SHELVES, CASEWORK, PLUMBING FIXTURES, ETC.
3. USE 5/8" FR GWB @ ALL FIRE-RATED PARTITIONS, ANCHOR W/ SCREWS @ 8" OC ON EDGES @ 12" OC IN FIELD PER UL DESIGN NUMBERS LISTED.
4. SEE ALL SPECIFICATIONS FOR GWB REQUIREMENTS @ TOILETS AND ALL WET AREAS.
5. APPLIES TO POWER AND COMMUNICATIONS, ETC.
   A) BACK-TO-BACK PLACEMENT OF OUTLET BOXES NOT PERMITTED.
   B) PLUG ALL UNUSED KNOCK-OUTS IN OUTLET BOXES WITH KNOCK-OUT CAPS.
   C) PROVIDE "HILTI FIRESTOP PUTTY PAD OR EQUAL TO OUTLET BOXES IN FIRE-RATED WALLS OR WHERE OTHERWISE INDICATED.
   D) DEPTH OF OUTLET BOX TO BE COMPATIBLE WITH STUD SIZES IN ORDER TO ACCOMMODATE BOX PAD.
6. PROVIDE 2" x 8" FIRE TREATED WOOD BLOCKING @ WALL HUNG CASEWORK, SHELVES, COUNTERTOPS, HEAVY WALL SCONCES, AND MAJOR ARTWORK.
7. NOTE, THE DIAGONAL BRACING COLUMN INDICATES THAT THE CONTRACTOR HAS AN OPTION TO PROVIDE BRACING TO REDUCE THE VERTICAL SPANS OF STUDS IN ORDER TO MINIMIZE SIZE, GAGE OR SPACING, PROVIDED THAT DOING SO DOESN'T CONFLICT WITH ARCHITECTS DESIGN CRITERIA.
8. FOR FIRE-RESISTIVE JOINT SYSTEMS AND THRU-PENETRATION FIRE STOP SYSTEMS, REFER TO DETAILS AND UL LISTINGS IDENTIFIED ON SHEET AE531 THRU AE535.

INTERIOR STUD CHART NOTES:

* REFERENCE STEEL STUD MANUFACTURER ASSOCIATION'S STANDARDS FOR SECTION PROPERTIES AND DESIGN OF STUD SIZE LISTED HERE.

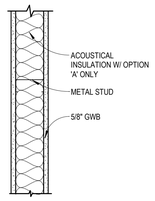
USE L/240 DEFLECTION CHART FOR ALL AREAS UNLESS OTHERWISE NOTED.

INTERIOR STUD GAGE AND SPACING CHART*

STUD WIDTH	DESIGN THICKNESS (GAGE)	STUD SPACING (INCHES)	PARTITION HEIGHT DEFLECTION VALUE 5 psf L/120	L/240	L/360	BRACING SPACING WHERE OCCURS
1 5/8"	0.0179" (25)	16"	10'-7"	8'-4"	-	4'-0" OC
		24"	9'-9"	7'-11"	-	4'-0" OC
	0.0312" (20)	16"	12'-1"	9'-8"	8'-5"	4'-0" OC
		24"	11'-0"	8'-9"	7'-8"	4'-0" OC
2 1/2"	0.0179" (25)	16"	13'-3"	11'-3"	9'-10"	6'-0" OC
		24"	11'-10"	10'-7"	9'-3"	6'-0" OC
	0.0312" (20)	16"	16'-5"	12'-10"	11'-2"	6'-0" OC
		24"	14'-10"	11'-7"	10'-0"	6'-0" OC
4"	0.0179" (25)	16"	17'-2"	15'-4"	13'-4"	8'-0" OC
		24"	15'-1"	14'-2"	12'-4"	8'-0" OC
	0.0312" (20)	16"	23'-1"	18'-4"	15'-11"	8'-0" OC
		24"	20'-9"	16'-5"	14'-3"	8'-0" OC
6"	0.0179" (25)	16"	19'-9"	19'-9"	17'-11"	10'-0" OC
		24"	16'-9"	16'-9"	16'-9"	10'-0" OC
	0.0312" (20)	16"	30'-10"	24'-6"	21'-4"	10'-0" OC
		24"	27'-2"	21'-7"	18'-10"	10'-0" OC

PARTITION TYPES LEGEND

PARTITION TYPES GENERAL NOTES & SPACING CHART

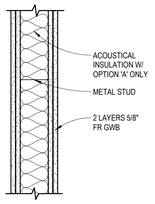


NON-RATED PARTITION

S2 — 2 1/2" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB BOTH SIDES
S4 — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB BOTH SIDES
S4C — 4" x 16 GA METAL STUDS @ 16" OC TO 6" ABOVE CEILING W/ 5/8" GWB BOTH SIDES
S4A — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES
S6 — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB BOTH SIDES, STC 49
S6C — 6" x 16 GA METAL STUDS @ 16" OC TO 6" ABOVE CEILING W/ 5/8" GWB BOTH SIDES
S6A — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES, STC 49
SS4 — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES - SMOKE PARTITION
SS6A — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES - SMOKE PARTITION
S6L — LEAD LINED PARTITION WITH 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED)
BC1 S2P — 2 1/2" x 16 GA METAL STUDS @ 16" OC TO 3'-6"AFF W/ 5/8" GWB BOTH SIDES

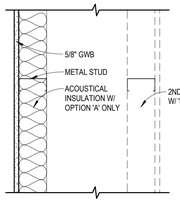
ONE HOUR FIRE RATING UL DESIGN NO U419

1SA — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" FR GWB BOTH SIDES
1SAA — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" FR GWB BOTH SIDES & ACOUSTICAL INSULATION, STC 49
1S6 — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" FR GWB BOTH SIDES
1S6A — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" FR GWB BOTH SIDES, STC 49
1S6L — LEAD LINED PARTITION WITH 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" FR GWB BOTH SIDES - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED), STC 49



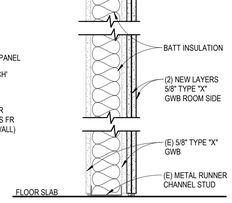
TWO HOUR FIRE RATING UL DESIGN NO U419

2SA — 4" x 16 GA METAL STUDS @ 16" OC W/ 2 LAYERS 5/8" FR GWB BOTH SIDES & ACOUSTICAL INSULATION TO STRUCTURE, STC 56



OPTION 'O' - ONE GWB FACE ONLY

S2O — 2 1/2" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY
S4O — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY
S6O — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY
S2OL — LEAD LINED PARTITION 2 1/2" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED)
S4OL — LEAD LINED PARTITION 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED)
BC1 S10L — LEAD LINED PARTITION 1 5/8" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED)



2 HOUR - SHAFTWALL

2SH — 4" 'CH' STUDS @ 16" OC W/ 2 LAYERS 5/8" FR GWB & A 1" GWB LINER PANEL TO STRUCTURE
UL DESIGN NO U438

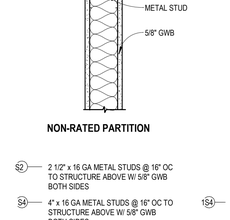
2-HR FIRE BARRIER W/3 LAYERS INSIDE UL DESIGN NO. 408

2G — 2 LAYERS OF FIRE RATED 5/8" GWB ON EXISTING METAL STUD WALL W/5/8" GWB ON EACH SIDE. THE 3 LAYER OF GWB SHALL BE ON THE ROOM SIDE.



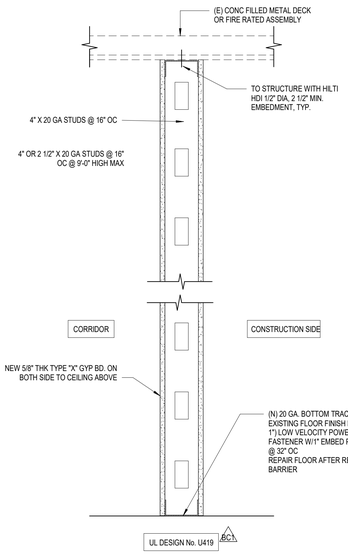
2-HR HORIZONTAL FIRE BARRIER UL DESIGN NO. 408

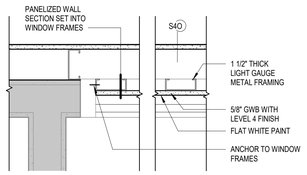
2G — 2 LAYERS OF FIRE RATED 5/8" GWB ON EXISTING METAL STUD WALL W/5/8" GWB ON EACH SIDE. THE 3 LAYER OF GWB SHALL BE ON THE ROOM SIDE.

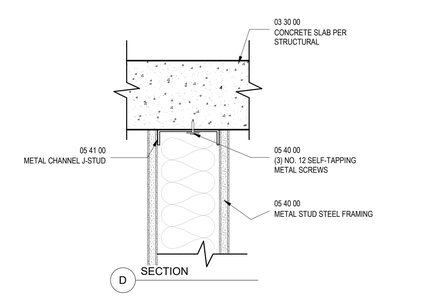


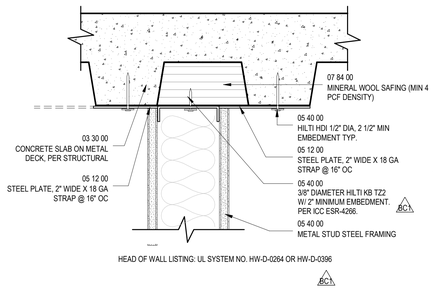
PLUMBING PARTITION

S5 — (2) 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY AND 1" AIR GAP IN BETWEEN
BC1

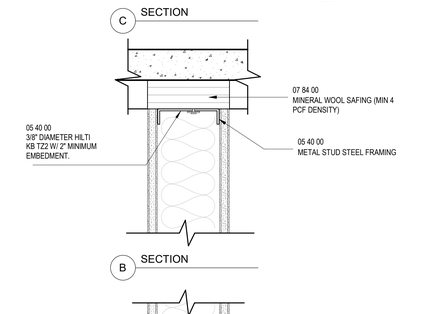




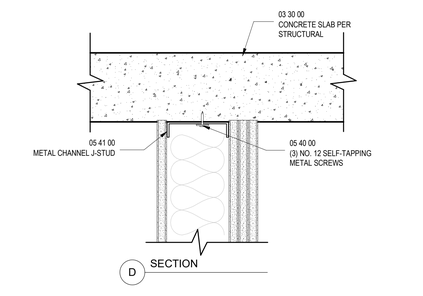


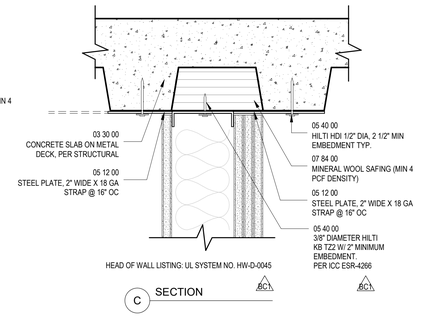


HEAD OF WALL LISTING: UL SYSTEM NO. HW-D-0284 OR HW-D-0396 BC1

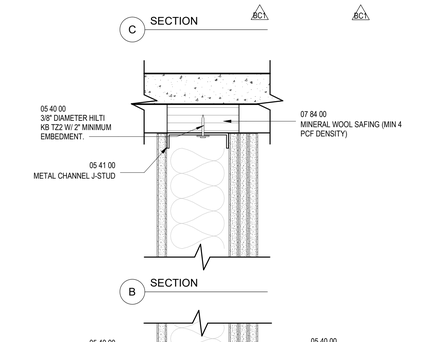


ONE HOUR FIRE RATING: UL SYSTEM NO. U419 BC1





HEAD OF WALL LISTING: UL SYSTEM NO. HW-D-0045 BC1 BC1



ONE HOUR FIRE RATING: UL SYSTEM NO. U408 BC1

C1 **PARTITION TYPES STUD (PLANS)**
SCALE: NTS

A1 **PARTITION TYPES STUD (PLUMBING)**
SCALE: 1 1/2" = 1'-0"

A2 **TEMPORARY CONSTRUCTION BARRIER**
SCALE: 1 1/2" = 1'-0"

A3 **WINDOW INFILL PANEL**
SCALE: 1 1/2" = 1'-0"

C5 **1-HR RATED ASSEMBLY - HEAD AND SILL**
SCALE: 3" = 1'-0"

C7 **2-HR RATED ASSEMBLY - HEAD AND SILL**
SCALE: 3" = 1'-0"

7/12/2024 2:44:44 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEINZ C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

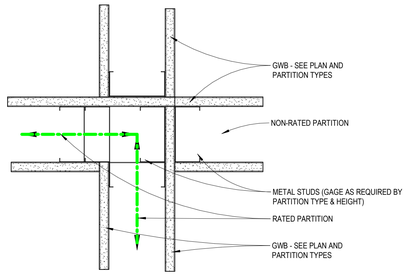
PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

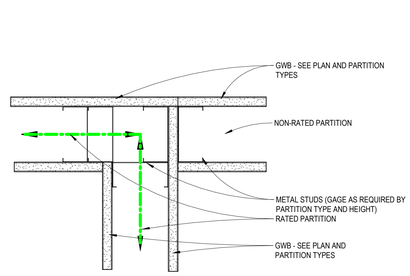
SHEET NAME
PARTITION TYPES

SHEET NUMBER
AE511

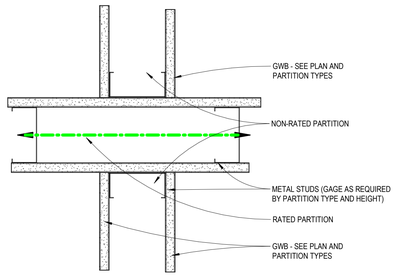
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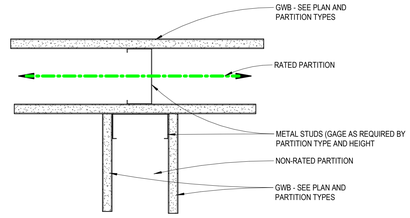
4 WAY INTERSECTION - PRIORITY PARTITION CHANGES DIRECTION



3 WAY INTERSECTION - PRIORITY PARTITION CHANGES DIRECTION



4 WAY INTERSECTION - PRIORITY PARTITION IS CONTINUOUS



3 WAY INTERSECTION - PRIORITY PARTITION IS CONTINUOUS

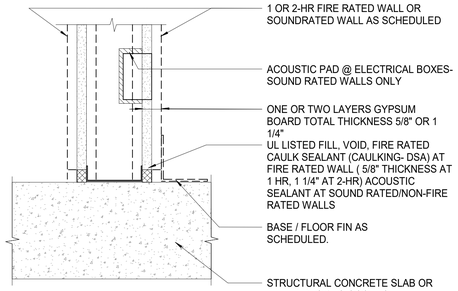
NOTE: REFER TO PLANS AND PARTITION TYPES FOR SPECIAL CONDITIONS AND NOTES

THE PRIORITY OF PARTITIONS IS DETERMINED AS FOLLOWS:

1. FIRE RATED PARTITIONS HAVE PRIORITY OVER NON-RATED PARTITIONS
2. PARTITIONS WITH GREATER FIRE RATING HAVE PRIORITY OVER THOSE WITH A LESSER RATING
3. SMOKE-SEALED PARTITIONS HAVE PRIORITY OVER NON-SMOKED SEALED PARTITIONS

D1 RATED WALL INTERSECTIONS

SCALE: 3" = 1'-0"

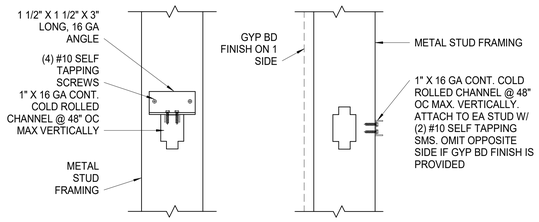


NOTES:
1. JOINT SIMILAR AT FIRE AND/OR SOUND RATED WALL VERTICAL TERMINATION JOINT AT CONCRETE OR MASONRY WALL
2. JOINT SIMILAR AT SOUND RATED HEAD OF WALL JOINT.

UL DES BW-S-0001 (1 & 2HR) FLOOR JOINT
UL DES WW-D-0040 (1 & 2HR) WALL JOINT

B1 FIRE RATED / SOUND RATED PARTITION- BASE

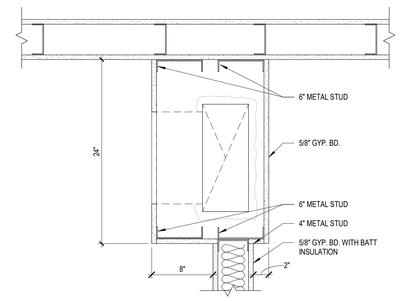
SCALE: 3" = 1'-0"



NOTE: BRIDGING REQUIRED WHERE GYP BD. OCCURS ON 1 SIDE OR LESS (NONE ON BOTH SIDES)

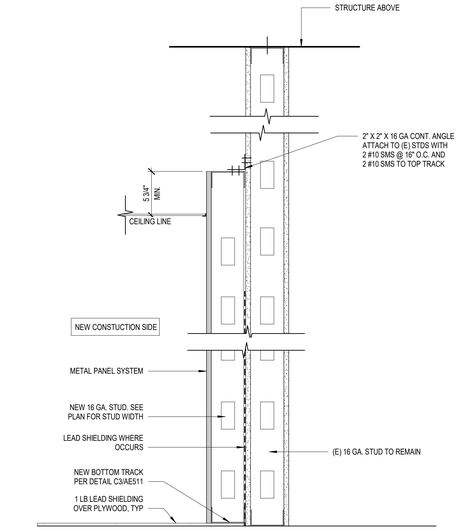
B2 BRACING DETAIL

SCALE: 3/4" = 1'-0"



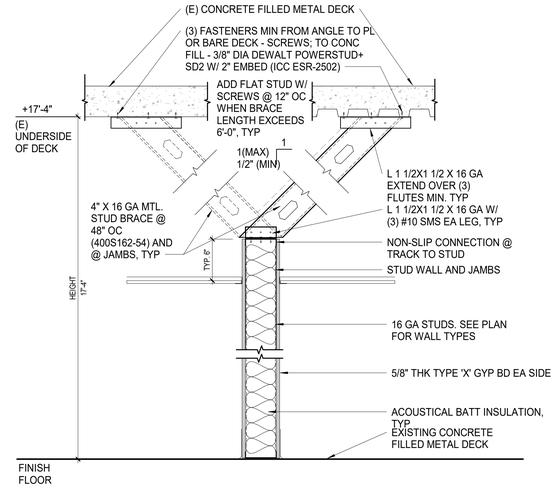
B4 LOW RETURN @ AIRBORNE INFECTION ISO EXAM PACU ROOM

SCALE: 1 1/2" = 1'-0"



E4 FURRED WALL DETAIL

SCALE: 1 1/2" = 1'-0"



E5 PARTIAL HEIGHT STUD BRACING

SCALE: 12" = 1'-0"

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

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AGENCY APPROVAL STAMP

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APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

DETAILS - PARTITIONS

SHEET NUMBER

AE512

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7/12/2024 2:44:45 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

PARTITION WALL SCHEDULES

SCHEDULE 1: MINIMUM PARTITION WALL STUD SIZE (PARTITION CONDITION 'A')

S_{DS}	WALL HEIGHT				
	9 FT	12 FT	16 FT		
~~0.25-0.99~~	~~362S137-33~~	~~362S137-33~~	~~362S137-43~~	~~400S137-43~~	~~600S137-33~~
~~1.00-1.25~~	~~362S137-33~~	~~362S137-33~~	~~362S137-43~~	~~400S137-43~~	~~600S137-33~~
~~1.26-1.45~~	~~362S137-33~~	~~362S137-33~~	~~362S137-43~~	~~400S137-43~~	~~600S137-33~~
1.46-1.95	362S137-33	362S137-33	362S137-54	400S137-54	600S137-43

SCHEDULE 2: MINIMUM PARTITION WALL STUD SIZE (PARTITION CONDITION 'B')

S_{DS}	WALL HEIGHT					
	9 FT	12 FT		16 FT		
~~0.25-0.99~~	~~362S137-33~~	~~362S137-43~~	~~400S137-43~~	~~362S137-54~~	~~400S137-43~~	~~600S137-43~~
~~1.00-1.25~~	~~362S137-33~~	~~362S137-43~~	~~400S137-43~~	~~NA~~	~~400S137-54~~	~~600S137-43~~
~~1.26-1.45~~	~~362S137-33~~	~~362S137-43~~	~~400S137-43~~	~~NA~~	~~400S137-54~~	~~600S137-43~~
1.46-1.95	~~362S137-33~~	362S137-54	~~400S137-43~~	~~NA~~	400S137-54	~~600S137-43~~

SCHEDULE 3: MINIMUM PARTITION WALL STUD SIZE (PARTITION CONDITION 'C')

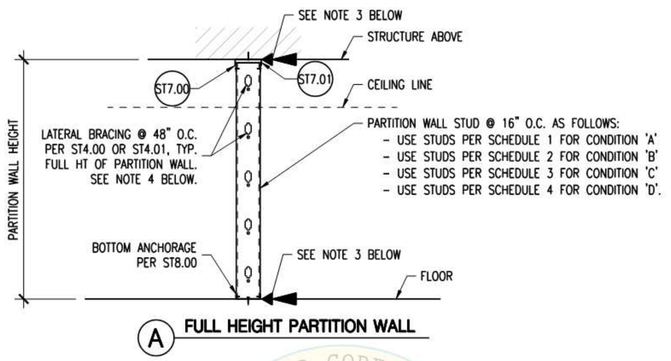
S_{DS}	WALL HEIGHT					
	9 FT		12 FT		16 FT	
~~0.25-0.99~~	~~362S137-43~~	~~400S137-54~~	~~362S137-54~~	~~400S137-43~~	~~600S137-43~~	~~600S137-43~~
~~1.00-1.25~~	~~362S137-43~~	~~400S137-54~~	~~362S137-54~~	~~400S137-54~~	~~600S137-43~~	~~600S137-54~~
~~1.26-1.45~~	~~362S137-43~~	~~400S137-54~~	~~NA~~	~~400S137-54~~	~~600S137-54~~	~~600S137-54~~
1.46-1.95	362S137-54	400S137-54	NA	NA	600S137-54	600S137-54

SCHEDULE 4: MINIMUM PARTITION WALL STUD SIZE (PARTITION CONDITION 'D')

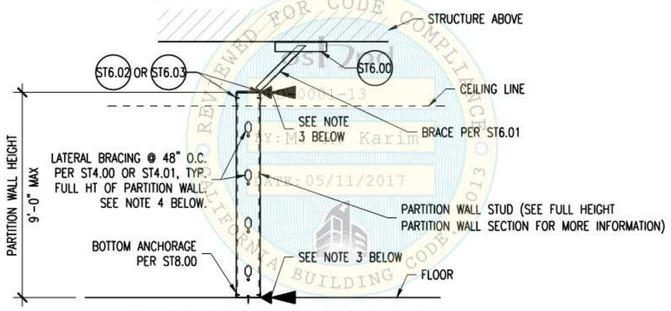
S_{DS}	WALL HEIGHT						
	9 FT			12 FT			16 FT
~~0.25-0.99~~	~~362S137-33~~	~~400S137-43~~	~~600S137-43~~	~~362S137-43~~	~~400S137-43~~	~~600S137-43~~	~~600S137-43~~
~~1.00-1.25~~	~~362S137-43~~	~~400S137-43~~	~~600S137-43~~	~~NA~~	~~400S137-54~~	~~600S137-43~~	~~600S137-43~~
~~1.26-1.45~~	~~362S137-43~~	~~400S137-43~~	~~600S137-43~~	~~NA~~	~~400S137-54~~	~~600S137-43~~	~~600S137-54~~
1.46-1.95	NA	400S137-54	600S137-54	NA	NA	600S137-54	600S137-54

NOTES:
1. PARTITION WALL STUDS ARE SPACED @ 16" O.C. TYPICAL UNLESS NOTED OTHERWISE.
2. SEE ST2.06 FOR PARTITION WALL ELEVATION & ADDITIONAL INFORMATION.
3. SEE ST2.00 FOR DEFINITION OF PARTITION WALL CONDITIONS.
4. SEE ST1.00 FOR METAL STUD PROFILES.
5. ~~362S137-33 IS A 3-5/8" WIDE SSMA STUD WITH 1-3/8" WIDE FLANGE THAT IS 33 MIL THICK.~~
6. STUDS SHOWN IN THE TABLES ABOVE CAN BE REPLACED BY EQUIVALENT STUDS WITH EQUAL OR HIGHER AREA (A), SECTION MODULUS (S_x, S_y) AND MOMENT OF INERTIA (I_x, I_y) PROVIDED MATERIALS CONFORM TO THE SAME ASTM STANDARD WITH EQUAL OR HIGHER YIELD STRENGTH (f_y) AND ULTIMATE STRENGTH (f_u) WHEN APPROVED.
7. PARTITION WALLS TO HAVE LATERAL BRACING @ 48" O.C. PER ST4.00 OR ST4.01, FOR FULL HT OF PARTITION WALL. LATERAL BRACING IS NOT REQUIRED WHERE GYP BOARD IS INSTALLED ON BOTH SIDES OF PARTITION WALL.

D1 ST2.01 PARTITION WALL SCHEDULES
SCALE: NTS



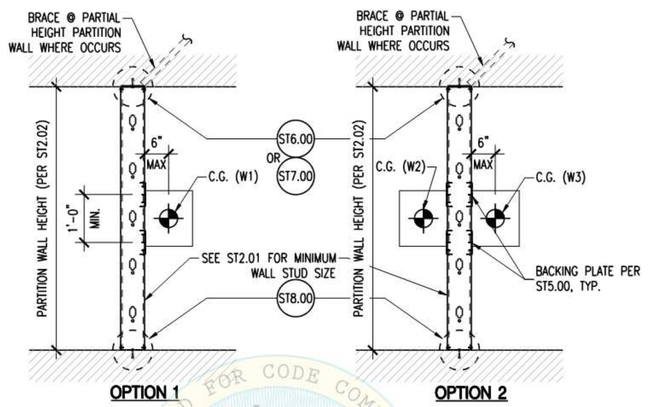
A FULL HEIGHT PARTITION WALL



B PARTIAL HEIGHT PARTITION WALL

NOTES:
1. PARTITION WALL SCHEDULES PER ST2.01.
2. SEE ST2.00 FOR DEFINITION OF PARTITION WALL CONDITIONS.
3. SEE ST6.11 FOR TOP & BOTTOM CONNECTION DEMANDS.
4. LATERAL BRACING IS NOT REQUIRED WHERE GYP BOARD IS INSTALLED ON BOTH SIDES OF PARTITION WALL.

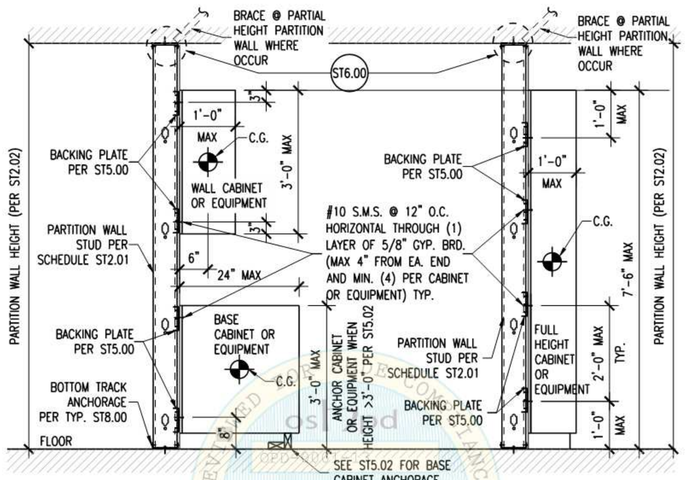
A1 ST2.02 TYPICAL PARTITION WALL SECTIONS
SCALE: NTS



A PARTITION WALL CONDITION 'B'

NOTES:
1. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING CABINETS OR EQUIPMENT THAT CONFORM TO THE REQUIREMENTS OF CONDITION 'B' PER ST2.00.
2. WHERE CABINETS OR EQUIPMENT OCCUR ON BOTH SIDES OF THE PARTITION WALL, EITHER OF THE FOLLOWING OPTIONS MAY BE USED:
   A. DECREASE SPACING OF WALL STUDS, BOTTOM TRACK ANCHORAGE AND TOP TRACK ANCHORAGE BY 50% FROM THAT SHOWN ON ST2.02, ST6.00, ST7.00 & ST8.00 (I.E. PROVIDE TWICE THE QUANTITY OF WALL STUDS AND TOP AND BOTTOM TRACK ANCHORAGE).
   B. LIMIT THE COMBINED WEIGHT OF CABINETS OR EQUIPMENT ON OPPOSITE SIDES OF WALL AS SHOWN IN OPTION 2.
      FOR EXAMPLE:
      W1= 50 LB/ STUD MAX
      W2 + W3= 50 LB/ STUD MAX
3. SEE ST2.01 FOR MINIMUM PARTITION WALL STUD SIZE.
4. FOR TYPICAL PARTITION WALL SECTIONS SEE ST2.02.

D3 ST2.03 CABINET OR EQUIPMENT ANCHORAGE TO PARTITION WALL, CONDITION 'B'
SCALE: NTS

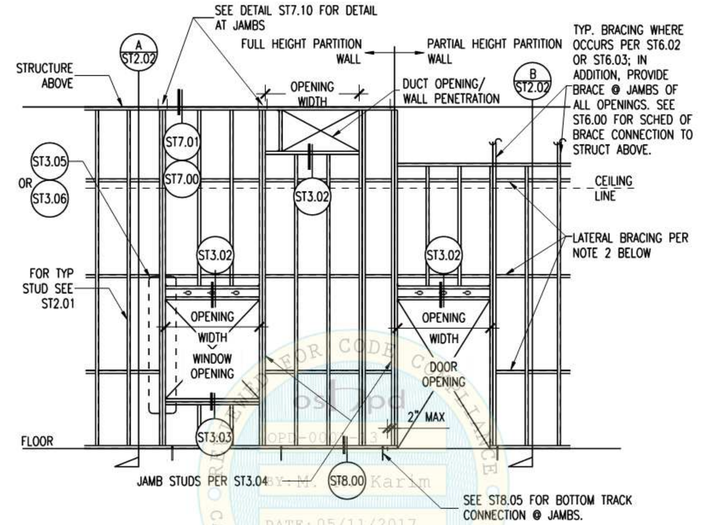


B CONDITION 'C' OVERHEAD AND / OR BASE CABINETS OR EQUIPMENT

C CONDITION 'D' FULL HEIGHT CABINETS OR EQUIPMENT

NOTES:
1. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING CABINETS OR EQUIPMENT THAT CONFORM TO THE REQUIREMENTS OF CONDITION 'C' OR 'D' PER ST2.00.
2. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING OVERHEAD AND/OR BASE CABINET OR EQUIPMENT ON ONE SIDE OF THE WALL. WHERE CABINETS OR EQUIPMENT OCCUR ON BOTH SIDES OF THE WALL, THE FOLLOWING OPTION MAY BE USED:
   A. DECREASE SPACING OF WALL STUDS, BOTTOM TRACK ANCHORAGE AND TOP TRACK ANCHORAGE BY 50% FROM THAT SHOWN ON ST2.02, ST6.00, ST7.00 & ST8.00. (I.E. PROVIDE TWICE THE QUANTITY OF WALL STUDS AND TOP AND BOTTOM TRACK ANCHORAGE).
3. SEE ST2.01 FOR MINIMUM WALL STUD SIZE.
4. FOR TYPICAL PARTITION SECTIONS SEE ST2.02.

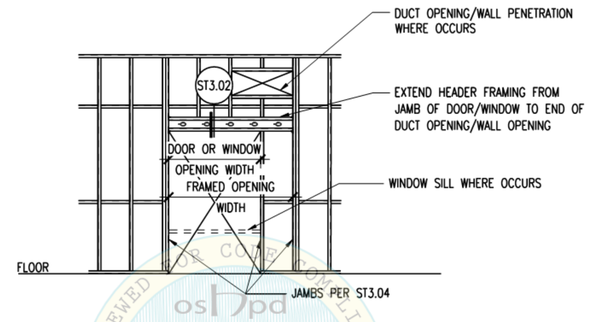
A3 ST2.04 CABINET OR EQUIPMENT ANCHORAGE TO PARTITION WALL, CONDITIONS 'C' & 'D'
SCALE: NTS



PARTITION WALL ELEVATION

NOTES:
1. ATTACHMENT OF CEILING, EQUIPMENT, ETC. TO THE JAMB, HEADER OR STUD ABOVE THE HEADER IS NOT PERMITTED WITHOUT THE APPROVAL OF THE RDP IN RESPONSIBLE CHARGE & OSHPD.
2. LATERAL BRACING PER ST4.00 & ST4.01 @ 4'-0" O.C. MAX. LATERAL BRACING NOT REQUIRED WHERE GYP. BOARD OCCURS ON BOTH SIDES OF PARTITION WALL.
3. SEE ST2.07 FOR CONDITION AT OVERLAPPING OPENINGS.

D6 ST2.06 PARTITION WALL ELEVATION - FULL HEIGHT AND PARTIAL HEIGHT PARTITION WALLS
SCALE: NTS



FRAMING AT OVERLAPPING OPENINGS

NOTES:
1. SEE ST2.06 FOR ADDITIONAL INFORMATION.
2. ATTACHMENT OF CEILING EQUIPMENT, ETC. TO THE JAMB, HEADER OR STUD ABOVE THE HEADER IS NOT PERMITTED WITHOUT THE APPROVAL OF THE RDP IN RESPONSIBLE CHARGE & OSHPD.

A6 ST2.07 PARTITION WALL ELEVATION - FRAMING AT OVERLAPPING OPENINGS
SCALE: 3" = 1'-0"

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CONSULTANT

CONSULTANT STAMP

KEY PLAN

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1	PLAN CHECK	10/10/2023
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FM08430011869	047-10071-002

SHEET NAME
DETAILS - PARTITIONS

SHEET NUMBER
AE513

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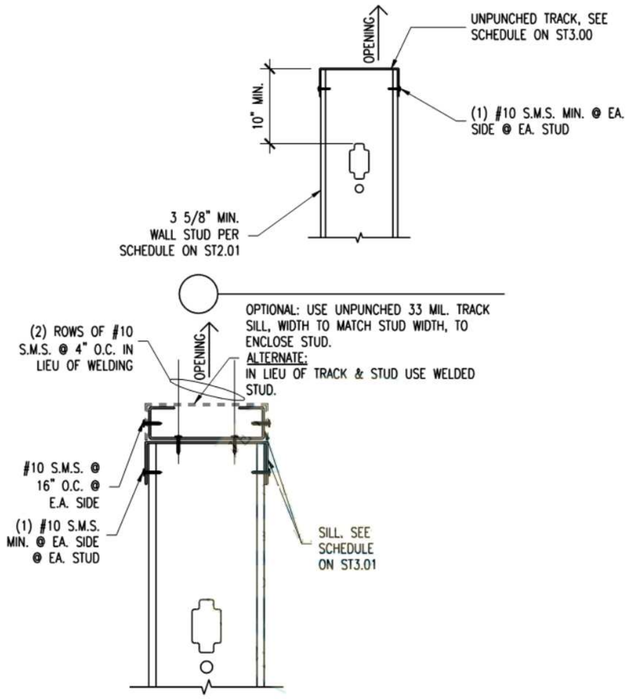
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PARTITION WALL OPENING FRAMING SCHEDULE

OPENING WIDTH	S_{DS}	PARTITION WALL HT UP TO:	CONN. DETAIL	JAMBS (# OF STUD)-MIL			HEADER			SILL (SEE NOTE 3)		
				3 5/8" WALL	4" WALL	6" WALL	FRAMING	FIGURE	MIL	FRAMING	FIGURE	MIL
>4'-0" TO ≤10'-0"	0.25-0.99	9'-0"	ST3.06-C OR ST3.06-D OR ST3.06-E	(1)-54 OR (2)-33	(1)-54 OR (2)-33	(1)-43 OR (2)-33	(1)TRACK	6"	54	(1)TRACK &(1)STUD		43 MIN.
		12'-0"		(2)-33	(2)-33	(2)-33	(2)TRACK & (2) STUD					
		16'-0"		(2)-54	(2)-54	(2)-43						
	1.00-1.25	9'-0"	ST3.06-C OR ST3.06-D OR ST3.06-E	(1)-54 OR (2)-33	(1)-54 OR (2)-33	(1)-43 OR (2)-33	(2)TRACK	6"	54	(1)TRACK &(1)STUD		43 MIN.
		12'-0"		(2)-43 OR (3)-33	(2)-43 OR (3)-33	(2)-33	(2)TRACK & (2) STUD					
		16'-0"		(3)-54	(2)-43 OR (3)-33	(2)-43						
	1.26-1.45	9'-0"	ST3.06-C OR ST3.06-D OR ST3.06-E	(1)-54 OR (2)-33	(1)-54 OR (2)-33	(1)-43 OR (2)-33	(2)TRACK	6"	54	(1)TRACK &(1)STUD		43 MIN.
		12'-0"		(2)-43 OR (3)-33	(2)-43 OR (3)-33	(2)-33	(2)TRACK & (2) STUD					
		16'-0"		(3)-54	(2)-54	(2)-43						
	1.45-1.95	9'-0"	ST3.06-C OR ST3.06-D OR ST3.06-E	(2)-33	(2)-33	(1)-54 OR (2)-33	(2)TRACK	6"	54	(1)TRACK &(1)STUD		43 MIN.
		12'-0"		(2)-43 OR (3)-33	(2)-43 OR (3)-33	(2)-33	(2)TRACK & (2) STUD					
		16'-0"		(3)-54	(3)-54	(2)-43						
				SEE DETAIL: ST3.04			SEE DETAIL: ST3.02			SEE DETAIL: ST3.03		

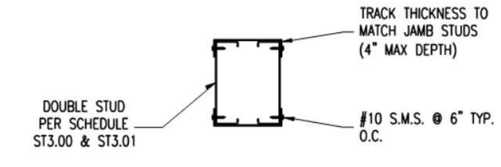
NOTES:
1. SEE GENERAL NOTES ON ST0.00, ST0.01 & ST0.02 FOR LIGHT GAUGE STEEL REQUIREMENTS AND DETAIL ST1.00 FOR SECTION PROFILES.
2. STUDS SHALL MATCH WALL SIZES, I.E. 362S FOR 3 5/8" WALL, 400S FOR 4" WALL & 600S FOR 6" WALL.
3. SCHEDULE FOR SILL BASED ON 4'-0" MAX HT. FOR SILLS TALLER THAN 4'-0" USE HEADER FRAMING.
4. SEE ST3.00 FOR DESIGN ASSUMPTIONS.

D1 ST3.01 WALL OPENING FRAMING SCHEDULE (OPENING WIDTH 4'-0" TO 10'-0" MAX)
SCALE: NTS

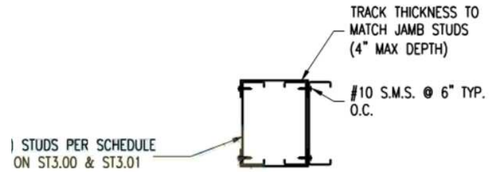


B SILL AT OPENING 4'-0" TO 10'-0" MAX

D3 ST3.03 SILL SECTION
SCALE: NTS



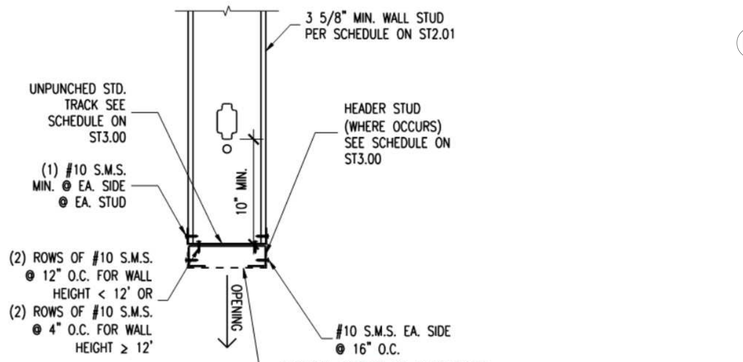
B DOUBLE JAMB STUD DETAIL



D TRIPLE JAMB STUD DETAIL

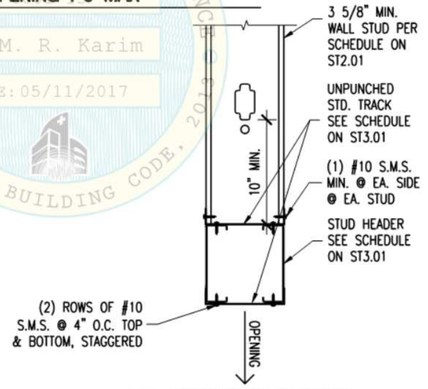
ITES:
WHERE (2) STUDS ARE INDICATED ON PLANS OR ELEVATIONS, USE DOUBLE STUD DETAIL A OR B ABOVE. WHERE (3) STUDS ARE INDICATED ON PLANS OR ELEVATIONS, USE TRIPLE STUD DETAIL C OR D ABOVE.
FOR STUD THICKNESSES, SEE SCHEDULE ON ST3.00 & ST3.01.

D5 ST3.04 JAMB STUD DETAILS
SCALE: NTS



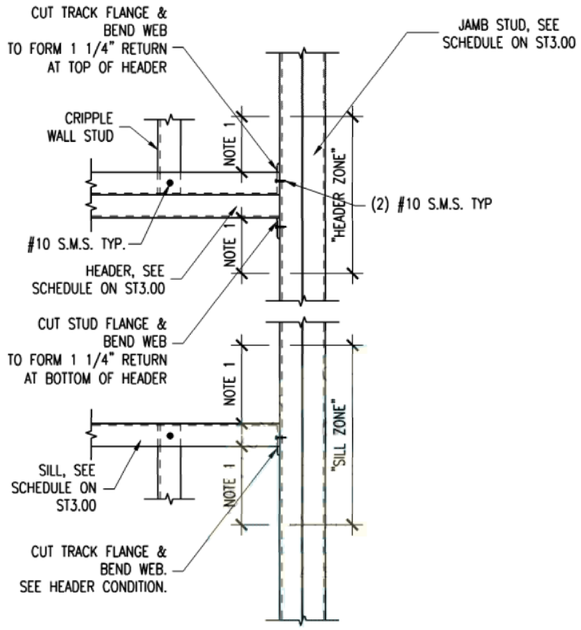
A HEADER AT OPENING 4'-0" MAX

NOTE:
1. ATTACHMENT OF CEILING, EQUIPMENT, ETC. TO THE HEADER OR STUDS ABOVE THE HEADER IS NOT PERMITTED WITHOUT THE APPROVAL OF THE RDP IN RESPONSIBLE CHARGE & OSHPD.

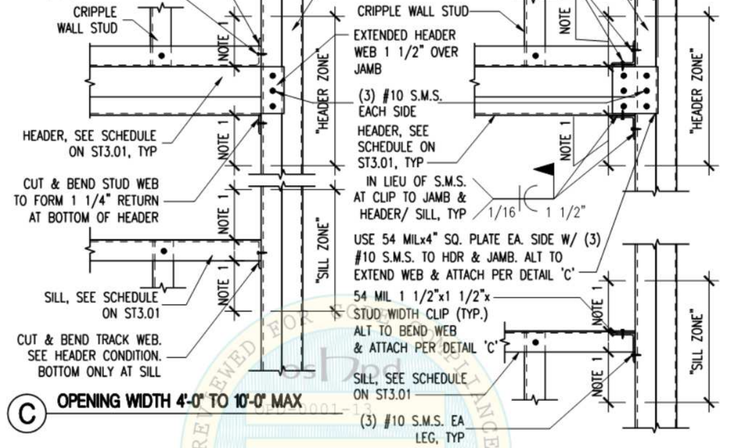


B HEADER AT OPENING 4'-0" TO 10'-0" MAX

C3 ST3.02 HEADER SECTION
SCALE: NTS

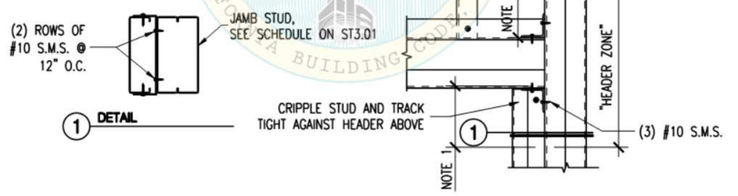


A 4'-0" MAX OPENING WIDTH



C OPENING WIDTH 4'-0" TO 10'-0" MAX

D OPENING WIDTH 4'-0" TO 10'-0" MAX
ALTERNATE CONNECTION 1



E FOR OPENING WIDTH 4'-0"TO 10'-0" MAX
ALTERNATE CONNECTION 2 – AT DOOR HEADERS

. NO STUD PUNCHES OR HOLES SHALL OCCUR WITHIN 10" ABOVE OR BELOW THE HEADER OR SILL OR INSIDE THE HEADER OR SILL ZONE.

1. NO STUD PUNCHES OR HOLES SHALL OCCUR WITHIN 10" ABOVE OR BELOW THE HEADER OR SILL OR INSIDE THE HEADER OR SILL ZONE.

A3 ST3.05 HEADER & SILL CONNECTION TO JAMB STUDS (4'-0" MAX OPENING WIDTH)
SCALE: 3" = 1'-0"

A5 ST3.06 HEADER & SILL CONNECTION TO JAMB STUDS (OPENING WIDTH 4'-0" TO 10'-0" MAX)
SCALE: NTS

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CONSULTANT

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KEY PLAN

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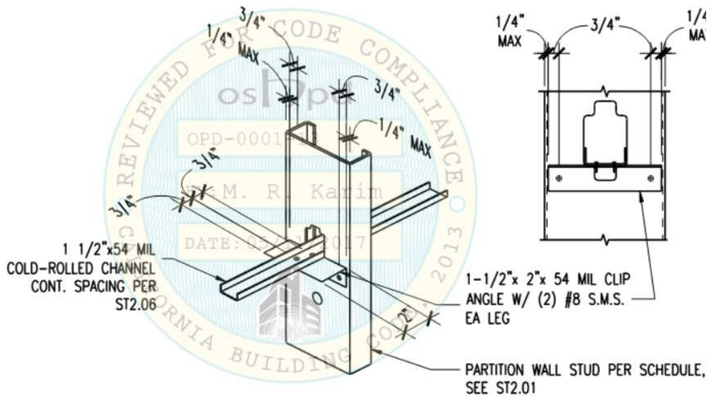
SHEET NAME
DETAILS - PARTITIONS

SHEET NUMBER
AE514

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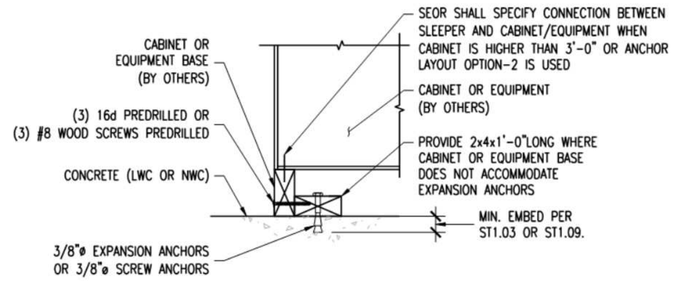
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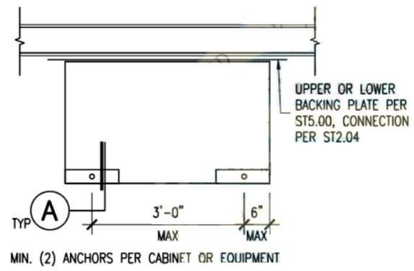
METAL STUD LATERAL BRACING TYPE 1

NOTES:
1. LATERAL BRACING IS NOT REQUIRED WHERE GYP. BOARD IS INSTALLED ON BOTH SIDES OF PARTITION WALL.
2. NOTCHING OR CUTTING OF COLD-ROLLED CHANNEL IS NOT PERMITTED FOR ANY CONDITION.

D1 ST4.00 METAL STUD LATERAL BRACING TYPE 1
SCALE: 3" = 1'-0"



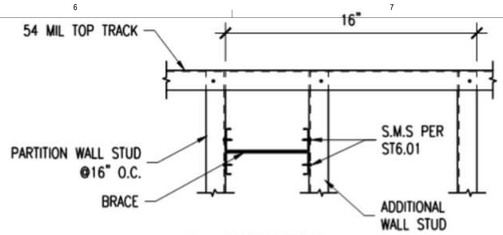
A ANCHOR DETAIL



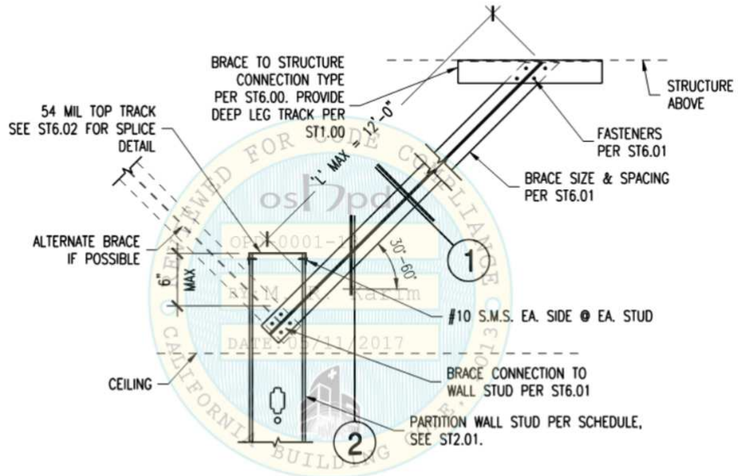
1 ANCHOR LAYOUT

NOTE:
1. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS, AND SEE ST1.09 & ST1.10 FOR SCREW ANCHOR REQUIREMENTS.

D3 ST5.02 BASE CABINET OR EQUIPMENT ANCHORAGE
SCALE: 3" = 1'-0"



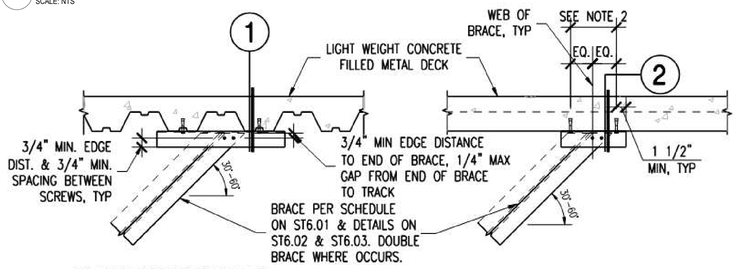
2 ELEVATION



A PARTITAL HEIGHT PARTITION WALL

NOTES:
1. SEE TOP & BOTTOM CONNECTION SCHEDULE ON ST6.11.
2. SEE ST2.00 FOR DEFINITION OF PARTITION WALL CONDITIONS.
3. DETAIL APPLIES TO PARTITION WALL CONDITIONS 'C' & 'D', ALL S_{DS} CATEGORIES.

D5 ST6.03 PARTIAL HEIGHT PARTITION WALL TOP BRACING - PARTITION WALL CONDITIONS 'C' & 'D'
SCALE: NTS



A BRACE PERPENDICULAR TO FLUTE OF DECK

B BRACE PARALLEL TO FLUTE OF DECK



1 SECTION

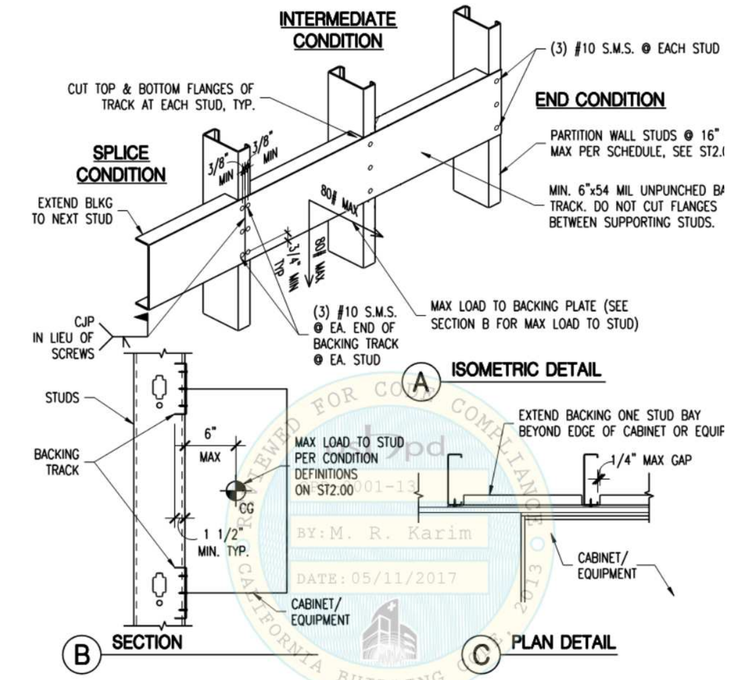
2 SECTION

BRACE ANCHORAGE TO CONCRETE FILLED METAL DECK

S_{DS}	PARTITION WALL TYPE	EXPANSION ANCHOR QUANTITY, SIZE AND EMBED	ALLOWABLE DECK TYPE
0.25 TO 1.95	CONDITION 'A' & 'B'	(2) 3/8"ø WITH 2" EMBED	W3"+3 1/4" CONC FILLED DECK PER ST1.09 OR 1 1/2"+2 1/4" CONC FILLED B-DECK PER ST1.13
0.25 TO 1.95	CONDITION 'C' & 'D'	(2) 5/8"ø WITH 4 1/4" EMBED	W3"+3 1/4" CONC FILLED DECK PER ST1.09 ONLY

NOTES:
1. SEE TOP & BOTTOM CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.
3. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S_{DS} CATEGORIES.

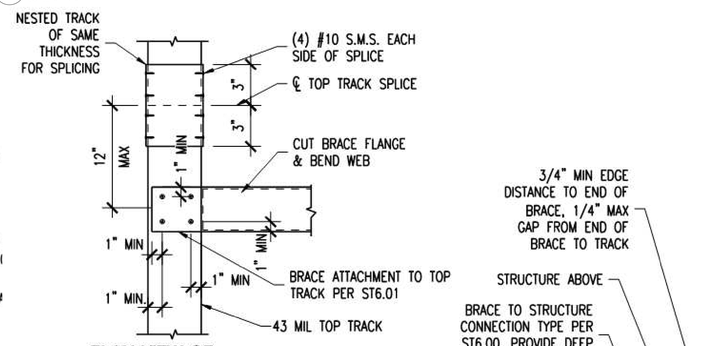
A5 ST6.04 BRACE CONNECTION TO CONCRETE FILLED METAL DECK - ALL PARTITION WALL CONDITIONS
SCALE: 3" = 1'-0"



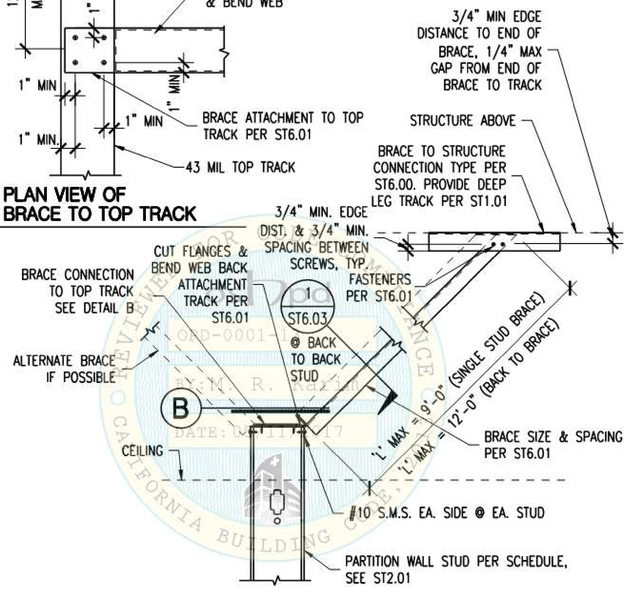
BACKING PLATE DETAIL TYPE 1

NOTES:
1. BACKING, CONNECTION TO STUD, AND STUDS FOR CABINETS OR EQUIPMENT EXCEEDING THIS LIMIT SHALL BE DESIGNE AND DETAILED BY RDP IN RESPONSIBLE CHARGE.
2. ST5.01 MAY BE USED FOR ATTACHMENT OF CABINETS OR EQUIPMENT DISTRIBUTING LESS THAN 20# PER STUD (CENTI OF GRAVITY LESS THAN 6" FROM FACE OF STUD).
3. NOTCHING OR CUTTING OF BACKING PLATE IS NOT PERMITTED EXCEPT AS SHOWN.

A1 ST5.00 BACKING PLATE DETAIL TYPE 1
SCALE: 3" = 1'-0"



B PLAN VIEW OF BRACE TO TOP TRACK



A PARTIAL HEIGHT PARTITION WALL

NOTES:
1. SEE TOP & BOTTOM CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST2.00 FOR DEFINITION OF PARTITION WALL CONDITIONS.
3. DETAIL APPLIES TO PARTITION WALL CONDITIONS 'A' & 'B', ALL S_{DS} CATERGORIES.

A3 ST6.02 PARTIAL HEIGHT PARTITION WALL TOP BRACING - PARTITION WALL CONDITIONS 'A' & 'B'
SCALE: 3" = 1'-0"

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

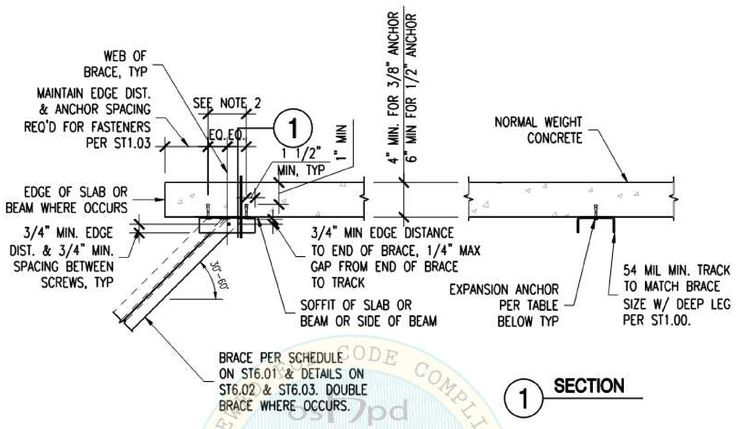
SHEET NAME
DETAILS - PARTITIONS

SHEET NUMBER
AE515

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REVIEWED FOR CODE COMPLIANCE CALIFORNIA BUILDING CODE 2013 OPD-0001-13 BY: M. R. Karim DATE: 05/11/2017

7/12/2024 2:44:47 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt



1 SECTION

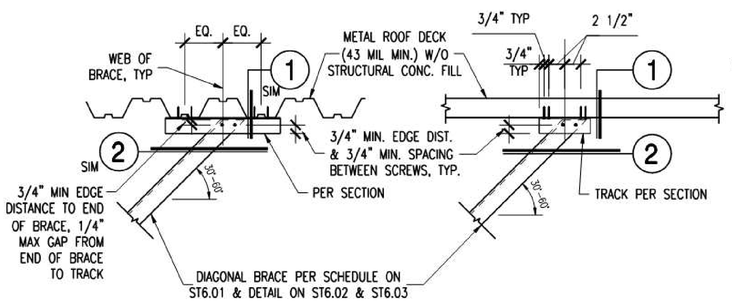
A BRACE TO CONC. SLAB OR BEAM SOFFIT

BRACE ANCHORAGE TO CONCRETE SLAB OR BEAM SOFFIT

S_{DS}	PARTITION WALL TYPE	EXPANSION ANCHOR QUANTITY, SIZE AND EMBED
0.25 TO 1.95	CONDITION 'A' & 'B'	(2) 3/8"ø WITH 2" EMBED
0.25 TO 1.95	CONDITION 'C' & 'D'	(2) 5/8"ø WITH 4 1/4" EMBED

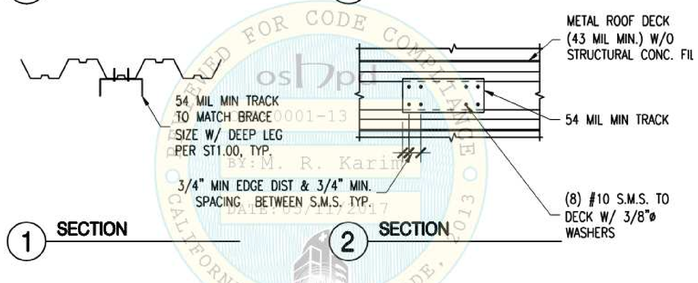
NOTES:
1. SEE TOP & BOTTOM CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.
3. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S_{DS} CATEGORIES.

D1 ST6.05 BRACE CONNECTION TO CONCRETE SLAB OR BEAM SOFFIT - ALL PARTITION WALL CONDITIONS
SCALE: NTS



A BRACE PERPENDICULAR TO FLUTE OF DECK

B BRACE PARALLEL TO FLUTE OF DECK

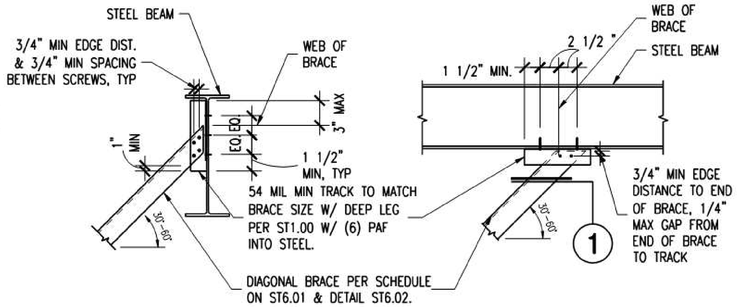


1 SECTION

2 SECTION

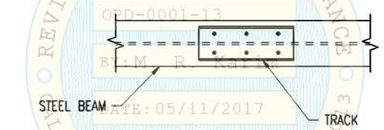
NOTES:
1. RDP IN RESPONSIBLE CHARGE TO PROVIDE CALCULATION FOR OSHPD REVIEW JUSTIFYING THE ABILITY OF METAL DECK TO SUPPORT THE REACTIONS FROM BRACE. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11 FOR BRACE REACTIONS.
2. THIS DETAIL IS APPLICABLE ONLY FOR PARTITION WALL CONDITIONS 'A' & 'B', ALL S_{DS} CATEGORIES.
3. RDP IN RESPONSIBLE CHARGE TO EVALUATE PARTITION WALL BRACING FOR CONDITIONS 'C' & 'D', ALL S_{DS} CATEGORIES.

D3 ST6.07 BRACE CONNECTION TO METAL ROOF DECK WITHOUT STRUCTURAL CONCRETE FILL - PARTITION WALL CONDITIONS 'A' & 'B'
SCALE: NTS



A PERPENDICULAR TO STEEL BEAM

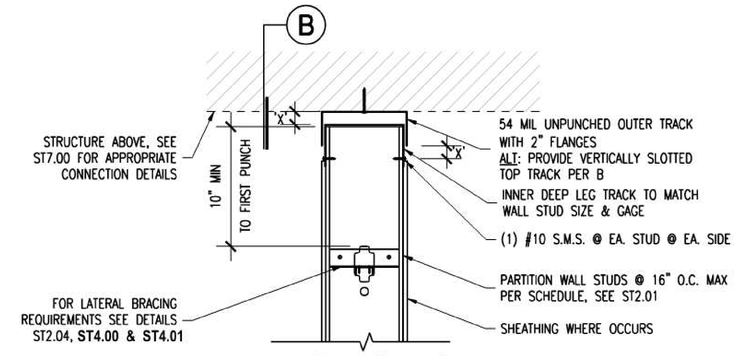
B BRACE PARALLEL TO STEEL BEAM



1 SECTION

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.05 FOR PAF REQUIREMENTS.
3. THIS DETAIL IS APPLICABLE ONLY FOR PARTITION WALL CONDITIONS 'A' & 'B', ALL S_{DS} CATEGORIES.
4. STEEL BEAM FLANGE & WEB MINIMUM THICKNESS = 3/16".
5. RDP IN RESPONSIBLE CHARGE, IOR AND CONTRACTOR TO VERIFY THAT NO PDF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE ANSI/AISC 341-10.

D6 ST6.08 BRACE CONNECTION TO STEEL BEAM - PARTITION WALL CONDITIONS 'A' & 'B'
SCALE: NTS



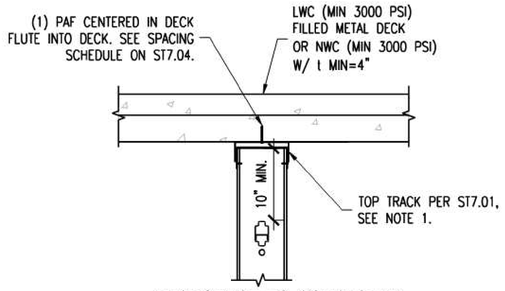
A NESTED TOP TRACK



B VERTICALLY SLOTTED TOP TRACK

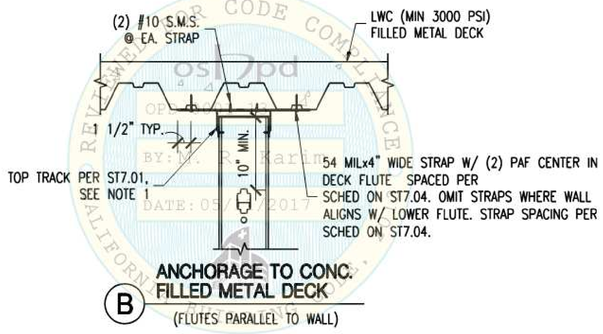
NOTES:
1. DO NOT CONNECT OUTER TRACK TO INNER TRACK OR STUDS (DETAIL A ONLY).
2. DO NOT CONNECT WALL FINISH TO OUTER TRACK (DETAILS A & B).
3. GAP 'X' - BY RDP IN RESPONSIBLE CHARGE, 1/2" MIN. TO 3/4" MAX.
4. RDP IN RESPONSIBLE CHARGE TO VERIFY "UL" RATING FOR HEAD OF WALL ASSEMBLY. APPROVED FIRE RESISTANT ASSEMBLY REQUIRED.
5. DETAIL B TO BE USED WHERE ONLY VERTICAL SLIP REQUIRED. WHERE HORIZONTAL, IN-PLANE SLIP IS REQUIRED, USE DETAIL A, DO NOT USE DETAIL B. DO NOT USE DETAIL B FOR ST7.08.
6. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
7. LATERAL BRACING ONLY REQUIRED IF GYP BOARD IS NOT FULL HEIGHT ON BOTH SIDES OF PARTITION WALL SEE ST2.06, ST4.00 & ST4.01.
8. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S_{DS} CATEGORIES.

A1 ST7.01 TYPICAL TOP TRACK ANCHORAGE - ALL PARTITION WALL CONDITIONS
SCALE: NTS



A ANCHORAGE TO CONC. SLAB & CONC. FILLED METAL DECK

(FLUTES PERPENDICULAR TO WALL)

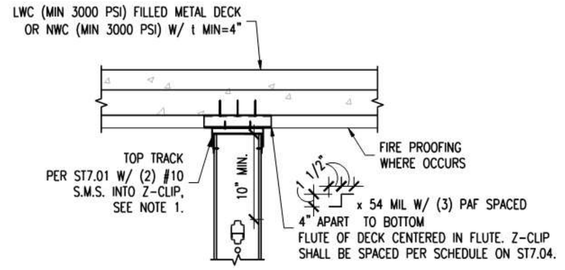


B ANCHORAGE TO CONC. FILLED METAL DECK

(FLUTES PARALLEL TO WALL)

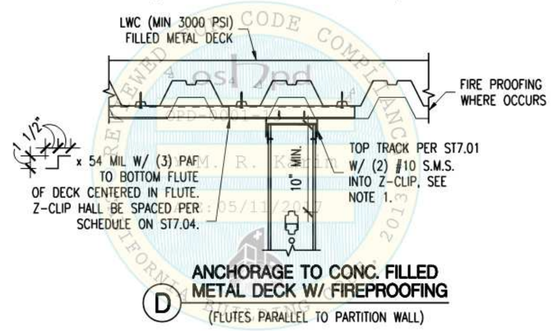
NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENTS.
3. SEE ST7.10 FOR CONNECTION AT JAMB LOCATION.
4. SEE ST2.01 FOR PARTITION WALL STUD SCHEDULE.
5. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S_{DS} CATEGORIES.

A3 ST7.02 TOP TRACK CONNECTION TO LWC FILLED METAL DECK & NWC SLAB - ALL PARTITION WALL CONDITIONS
SCALE: NTS



C ANCHORAGE TO CONC. SLAB & FILLED METAL DECK W/ FIREPROOFING

(FLUTES PERPENDICULAR TO PARTITION WALL)



D ANCHORAGE TO CONC. FILLED METAL DECK W/ FIREPROOFING

(FLUTES PARALLEL TO PARTITION WALL)

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENTS.
3. SEE ST7.10 FOR CONNECTION AT JAMB LOCATION.
4. SEE ST2.01 FOR PARTITION WALL PARTITION STUD SCHEDULE.
5. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S_{DS} CATEGORIES.

A6 ST7.03 TOP TRACK CONNECTION TO LWC FILLED METAL DECK & NWC SLAB WITH FIREPROOFING - ALL PARTITION WALL CONDITIONS
SCALE: NTS

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHEN A. HEATH C-27289 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB
SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

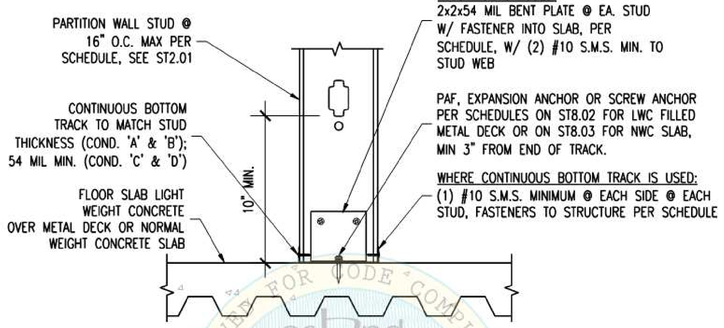
SHEET NAME
DETAILS - PARTITION

SHEET NUMBER
AE516

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REVIEWED FOR CODE COMPLIANCE OSHPD OPD-0001-13 BY: M. R. Karim DATE: 05/11/2017 CALIFORNIA BUILDING CODE, 2013

7/12/2024 2:44:47 PM Autodesk Docs://047-10071-002_RUHS-TO-1- Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt



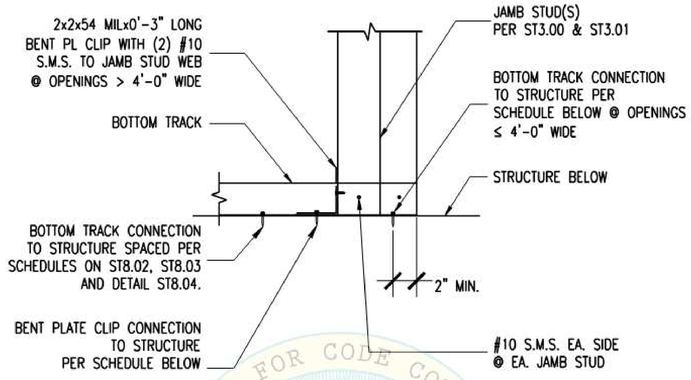
A PARTITION WALL BOTTOM TRACK ANCHORAGE

LIGHT WEIGHT CONCRETE OVER METAL DECK OR NORMAL WEIGHT CONCRETE SLAB

NOTES:
1. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENT AND ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS AND ST1.09 & ST1.10 FOR SCREW ANCHOR REQUIREMENTS.
2. SEE ST8.05 FOR ANCHORAGE @ JAMBS.
3. FOR LIGHT WEIGHT CONCRETE OVER METAL DECK, SEE ST8.02 FOR FASTENER TO SLAB SCHEDULE.
4. FOR NORMAL WEIGHT CONCRETE SLAB, SEE ST8.03 FOR FASTENER TO SLAB SCHEDULE.
5. SEE ST2.01 FOR PARTITION WALL STUD SCHEDULE.

A1 ST8.01 BOTTOM TRACK CONNECTION TO LWC ON METAL DECK OR NWC SLAB - ALL PARTITION WALL CONDITIONS

SCALE: NTS



OPENING SIZE	JAMB STUD BOTTOM TRACK CONNECTION TYPE	CONNECTION TO STRUCTURE (THROUGH BENT PL CLIP OR THROUGH BOTTOM TRACK)
≤ 4'-0"	BOTTOM TRACK CONNECTION TO STRUCTURE (NO CLIP REQUIRED)	(3) PAF
		(1) 3/8"ø x 2" EMBED EXPANSION ANCHOR
		(1) 3/8"ø x 2 1/2" EMBED SCREW ANCHOR
		(2) #10 WOOD SCREWS
		(6) 0.145"ø PAF
>4'-0" TO ≤ 10'-0"	BENT PL CLIP CONNECTION TO STRUCTURE	(1) 3/8"ø x 2" EMBED EXPANSION ANCHOR
		(1) 3/8"ø x 2 1/2" EMBED SCREW ANCHOR
		(3) #10 WOOD SCREWS

NOTE:
1. BOTTOM CONNECTION @ JAMBS AT PARTITION WALL CONDITION 'A', ALL S_{DS} CATEGORIES.

A4 ST8.05 BOTTOM TRACK CONNECTION AT JAMBS - PARTITION WALL CONDITION 'A'

SCALE: NTS

PLOT DATE: May 05, 2017

BOTTOM TRACK CONNECTION TO LWC ON METAL DECK FASTENER MAX SPACING SCHEDULE

BOTTOM CONNECTION DEMANDS (PARTITION WALL CONDITION 'A')

MAX PARTITION WALL HEIGHT	S_{DS}	MAXIMUM FASTENER SPACING IN INCHES AT BOTTOM CONNECTION				
		PAF	3/8"ø EXP ANCHOR W/ 2" EMBED	1/2"ø EXP ANCHOR W/ 2 1/4" EMBED	3/8"ø SCREW ANCHOR W/ 2 1/2" EMBED	1/2"ø SCREW ANCHOR W/ 2 1/2" EMBED
9 FT	0.25-0.99	33	32	32	32	32
	1.00-1.25	24	32	32	32	32
	1.26-1.45	18	32	32	32	32
	1.46-1.95	14	32	32	32	32
12 FT	0.25-0.99	24	32	32	32	32
	1.00-1.25	18	32	32	32	32
	1.26-1.45	14	32	32	32	32
	1.46-1.95	11	32	32	32	32
16 FT	0.25-0.99	18	32	32	32	32
	1.00-1.25	14	32	32	32	32
	1.26-1.45	11	32	32	32	32
	1.46-1.95	9	32	32	32	32

BOTTOM CONNECTION DEMANDS (PARTITION WALL CONDITION 'B')

MAX PARTITION WALL HEIGHT	S_{DS}	MAXIMUM FASTENER SPACING IN INCHES AT BOTTOM CONNECTION				
		PAF	3/8"ø EXP ANCHOR W/ 2" EMBED	1/2"ø EXP ANCHOR W/ 2 1/4" EMBED	3/8"ø SCREW ANCHOR W/ 2 1/2" EMBED	1/2"ø SCREW ANCHOR W/ 2 1/2" EMBED
9 FT	0.25-0.99	16	32	32	32	32
	1.00-1.25	12	32	32	32	32
	1.26-1.45	9	32	32	32	32
	1.46-1.95	8	32	32	32	32
12 FT	0.25-0.99	12	32	32	32	32
	1.00-1.25	9	32	32	32	32
	1.26-1.45	8	32	32	32	32
	1.46-1.95	6	32	32	32	32
16 FT	0.25-0.99	9	32	32	32	32
	1.00-1.25	8	32	32	32	32
	1.26-1.45	6	32	32	32	32
	1.46-1.95	5	32	32	32	32

BOTTOM CONNECTION DEMANDS (PARTITION WALL CONDITIONS 'C' & 'D')

MAX PARTITION WALL HEIGHT	S_{DS}	MAXIMUM FASTENER SPACING IN INCHES AT BOTTOM CONNECTION				
		PAF	3/8"ø EXP ANCHOR W/ 2" EMBED	1/2"ø EXP ANCHOR W/ 2 1/4" EMBED	3/8"ø SCREW ANCHOR W/ 2 1/2" EMBED	1/2"ø SCREW ANCHOR W/ 2 1/2" EMBED
9 FT	0.25-0.99	-	32	32	32	32
	1.00-1.25	-	32	32	32	32
	1.26-1.45	-	32	32	32	32
	1.46-1.95	-	32	32	24	24
12 FT	0.25-0.99	-	32	32	32	32
	1.00-1.25	-	32	32	24	24
	1.26-1.45	-	32	32	18	18
	1.46-1.95	-	32	32	14	14
16 FT	0.25-0.99	-	32	32	24	24
	1.00-1.25	-	32	32	18	18
	1.26-1.45	-	32	32	14	14
	1.46-1.95	-	24	32	11	11

NOTES:
1. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENTS.
2. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.
3. SEE ST1.09 & ST1.10 FOR SCREW ANCHOR REQUIREMENTS.

SCENAN TITLE: STANDARD PARTITION WALL DETAILS

SHEET TITLE: BOTTOM TRACK CONNECTION TO LWC ON METAL DECK FASTENER MAX SPACING SCHEDULE

OPD NO.: ST8.02

05/11/2017 OPD-0001-13; Reviewed for Code Compliance by Karim Page 78 of 86

C5 ST8.02 BOTTOM TRACK CONNECTION TO NWC SLAB FASTENER MAX SPACING SCHEDULE

SCALE: 3" = 1'-0"

PLOT DATE: May 05, 2017

BOTTOM TRACK CONNECTION TO NWC SLAB FASTENER MAX SPACING SCHEDULE

BOTTOM CONNECTION DEMANDS (PARTITION WALL CONDITION 'A')

MAX PARTITION WALL HEIGHT	S_{DS}	MAXIMUM FASTENER SPACING IN INCHES AT BOTTOM CONNECTION				
		PAF	3/8"ø EXP ANCHOR W/ 2" EMBED	1/2"ø EXP ANCHOR W/ 2 1/4" EMBED	3/8"ø SCREW ANCHOR W/ 2 1/2" EMBED	1/2"ø SCREW ANCHOR W/ 2 1/2" EMBED
9 FT	0.25-0.99	33	32	32	32	32
	1.00-1.25	24	32	32	32	32
	1.26-1.45	18	32	32	32	32
	1.46-1.95	14	32	32	32	32
12 FT	0.25-0.99	24	32	32	32	32
	1.00-1.25	18	32	32	32	32
	1.26-1.45	14	32	32	32	32
	1.46-1.95	11	32	32	32	32
16 FT	0.25-0.99	18	32	32	32	32
	1.00-1.25	14	32	32	32	32
	1.26-1.45	11	32	32	32	32
	1.46-1.95	9	32	32	32	32

BOTTOM CONNECTION DEMANDS (PARTITION WALL CONDITION 'B')

MAX PARTITION WALL HEIGHT	S_{DS}	MAXIMUM FASTENER SPACING IN INCHES AT BOTTOM CONNECTION				
		PAF	3/8"ø EXP ANCHOR W/ 2" EMBED	1/2"ø EXP ANCHOR W/ 2 1/4" EMBED	3/8"ø SCREW ANCHOR W/ 2 1/2" EMBED	1/2"ø SCREW ANCHOR W/ 2 1/2" EMBED
9 FT	0.25-0.99	16	32	32	32	32
	1.00-1.25	12	32	32	32	32
	1.26-1.45	9	32	32	32	32
	1.46-1.95	8	32	32	32	32
12 FT	0.25-0.99	12	32	32	32	32
	1.00-1.25	9	32	32	32	32
	1.26-1.45	8	32	32	32	32
	1.46-1.95	6	32	32	32	32
16 FT	0.25-0.99	9	32	32	32	32
	1.00-1.25	8	32	32	32	32
	1.26-1.45	6	32	32	32	32
	1.46-1.95	5	32	32	32	32

BOTTOM CONNECTION DEMANDS (PARTITION WALL CONDITIONS 'C' & 'D')

MAX PARTITION WALL HEIGHT	S_{DS}	MAXIMUM FASTENER SPACING IN INCHES AT BOTTOM CONNECTION				
		PAF	3/8"ø EXP ANCHOR W/ 2" EMBED	1/2"ø EXP ANCHOR W/ 2 1/4" EMBED	3/8"ø SCREW ANCHOR W/ 2 1/2" EMBED	1/2"ø SCREW ANCHOR W/ 2 1/2" EMBED
9 FT	0.25-0.99	-	32	32	32	32
	1.00-1.25	-	32	32	32	32
	1.26-1.45	-	32	32	32	32
	1.46-1.95	-	32	32	24	24
12 FT	0.25-0.99	-	32	32	32	32
	1.00-1.25	-	32	32	32	32
	1.26-1.45	-	32	32	32	32
	1.46-1.95	-	24	32	24	24
16 FT	0.25-0.99	-	32	32	32	32
	1.00-1.25	-	32	32	32	32
	1.26-1.45	-	32	32	32	32
	1.46-1.95	-	24	32	24	24

NOTES:
1. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENTS.
2. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.
3. SEE ST1.09 & ST1.10 FOR SCREW ANCHOR REQUIREMENTS.

SCENAN TITLE: STANDARD PARTITION WALL DETAILS

SHEET TITLE: BOTTOM TRACK CONNECTION TO NWC SLAB FASTENER MAX SPACING SCHEDULE

OPD NO.: ST8.03

05/11/2017 OPD-0001-13; Reviewed for Code Compliance by Karim Page 79 of 86

A5 ST8.03 BOTTOM TRACK CONNECTION TO NWC SLAB FASTENER MAX SPACING SCHEDULE

SCALE: 3" = 1'-0"

REVIEWED FOR CODE COMPLIANCE
BY: M. R. Karim
DATE: 05/11/2017
CALIFORNIA BUILDING CODE, 2013

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHEN A. KREKORIAN C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

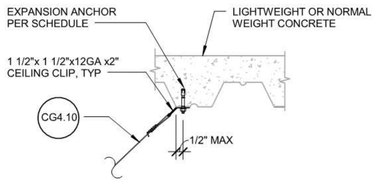
DETAILS - PARTITION

SHEET NUMBER

AE517

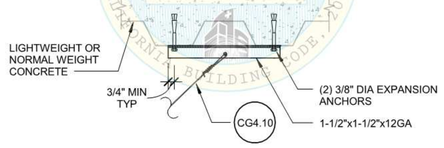
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OPTION 1

ANCHOR BOLT SIZE	SPLAY BRACE/COMP POST SPACING	SDS (g) RANGE (z/h = 1.0)	DECK TYPE
5/8 x 4 1/4" EMBED	8' x 8' (PER CG2.20)	$1.73<S_{DS}\leq 2.5$ (PER CG2.20)	W3 + 3 1/4" MIN PER GX1.20
5/8 x 4 1/4" EMBED	8' x 12' (PER CG2.21)	$1.15<S_{DS}\leq 1.73$ (PER CG2.21)	W3 + 3 1/4" MIN PER GX1.20
5/8 x 4 1/4" EMBED	12' x 12' (PER CG2.22)	$0<S_{DS}\leq 1.15$ (PER CG2.22)	W3 + 3 1/4" MIN PER GX1.20
3/8 x 2" EMBED[3]	8' x 8' (PER CG2.20)[3]	$0.76<S_{DS}\leq 1.14$ (IN LIEU OF S_{DS} SHOWN ON CG2.20)[3]	W3 + 3 1/4" MIN PER GX1.20 OR B 1 1/2" + 2 1/4" MIN PER GX1.22
3/8 x 2" EMBED[3]	8' x 12' (PER CG2.21)[3]	$0.51<S_{DS}\leq 0.76$ (IN LIEU OF S_{DS} SHOWN ON CG2.21)[3]	W3 + 3 1/4" MIN PER GX1.20 OR B 1 1/2" + 2 1/4" MIN PER GX1.22
3/8 x 2" EMBED[3]	12' x 12' (PER CG2.22)[3]	$0<S_{DS}\leq 0.51$ (IN LIEU OF S_{DS} SHOWN ON CG2.22)[3]	W3 + 3 1/4" MIN PER GX1.20 OR B 1 1/2" + 2 1/4" MIN PER GX1.22

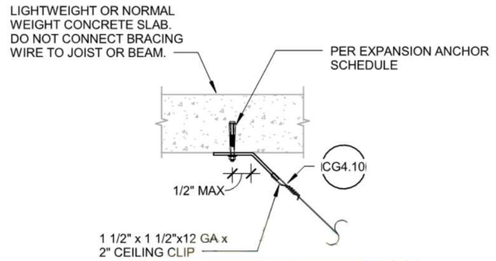


OPTION 2

NOTES:

1. LOAD TEST IN ACCORDANCE WITH GENERAL NOTE 14(g), PAGE CG0.02 SHALL BE REQUIRED
2. REFER TO CG4.10 FOR ADDITIONAL DETAILS
3. RDP CAN USE SMALLER EXPANSION BOLT SIZE AND SHALLOWER EMBEDMENT DEPTH SHOWN, PROVIDED VERTICAL STRUT/BRACING WIRE SPACING IS REDUCED AS SHOWN, IN LIEU OF SPACINGS SHOWN ON CG2.20, CG2.21, AND CG2.22.

D1 CG4.31 BRACING WIRE - CONCRETE OVER METAL DECK
SCALE: NTS

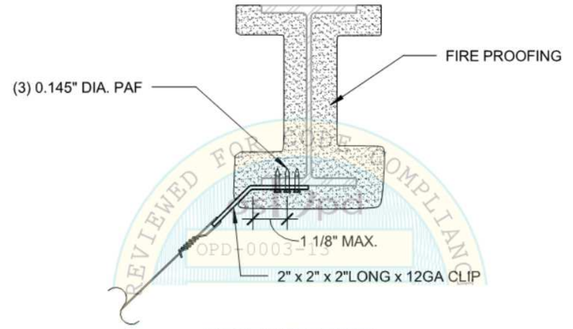


ANCHOR BOLT SIZE	SPLAY BRACE/COMP POST SPACING	SDS (g) RANGE (z/h = 1.0)
5/8 x 4 1/4" EMBED	8' x 8' (PER CG2.20)	W3 + 3 1/4" MIN PER GX1.20
5/8 x 4 1/4" EMBED	8' x 12' (PER CG2.21)	W3 + 3 1/4" MIN PER GX1.20
5/8 x 4 1/4" EMBED	12' x 12' (PER CG2.22)	W3 + 3 1/4" MIN PER GX1.20
3/8 x 2" EMBED[3]	8' x 8' (PER CG2.20)[3]	$1.24<S_{DS}<1.86$ (IN LIEU OF S_{DS} SHOWN ON GX2.20)[3]
3/8 x 2" EMBED[3]	8' x 12' (PER CG2.21)[3]	$0.83<S_{DS}<1.24$ (IN LIEU OF S_{DS} SHOWN ON GX2.21)[3]
3/8 x 2" EMBED[3]	12' x 12' (PER CG2.22)[3]	$0<S_{DS}<0.83$ (IN LIEU OF S_{DS} SHOWN ON GX2.22)[3]

NOTES:

1. LOAD TEST IN ACCORDANCE WITH GENERAL NOTE 14(g), PAGE CG0.02 SHALL BE REQUIRED.
2. REFER TO CG4.10 FOR ADDITIONAL DETAILS.
3. RDP CAN USE SMALLER EXPANSION BOLT SIZE AND SHALLOWER EMBEDMENT DEPTH SHOWN, PROVIDED VERTICAL STRUT/BRACING WIRE SPACING IS REDUCED AS SHOWN, IN LIEU OF SPACING SHOWN IN CG2,20, CG2.21 AND CG2.22.

D3 CG4.32 BRACING WIRE - CONCRETE SLAB, BEAM, OR JOIST
SCALE: NTS

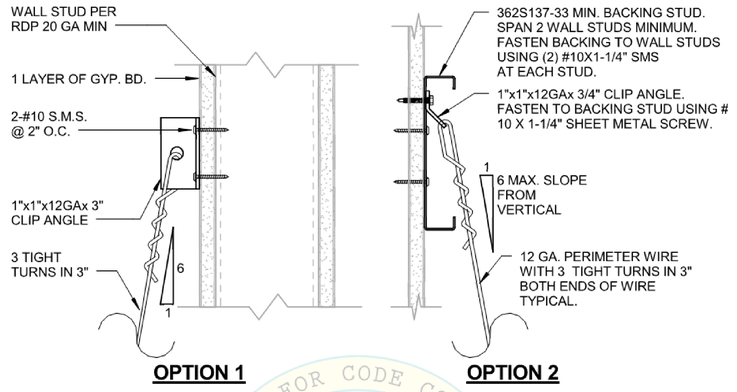


BRACING WIRE

NOTES :

1. BEAM FLANGE THICKNESS SHALL NOT BE LESS THAN 3/16" OR MORE THAN 3/8"
2. FRAMING MEMBERS SHALL BE DESIGNED TO CARRY THE CEILING LOADS, RDP TO VERIFY
3. RDP IN RESPONSIBLE CHARGE, I.O.R. AND CONTRACTOR SHALL VERIFY THAT NO PAF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE ANSI/AISC 341-10.

D5 CG4.33 BRACING WIRE - STRUCTURAL STEEL
SCALE: 3" = 1'-0"

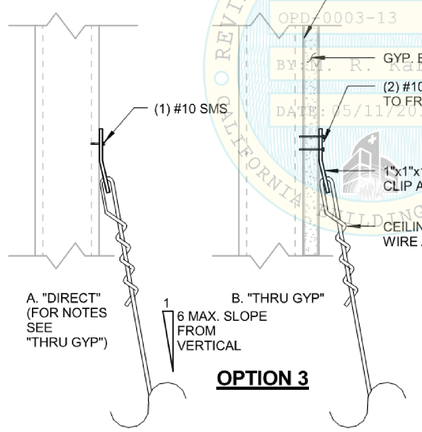


OPTION 1

OPTION 2

NOTES:

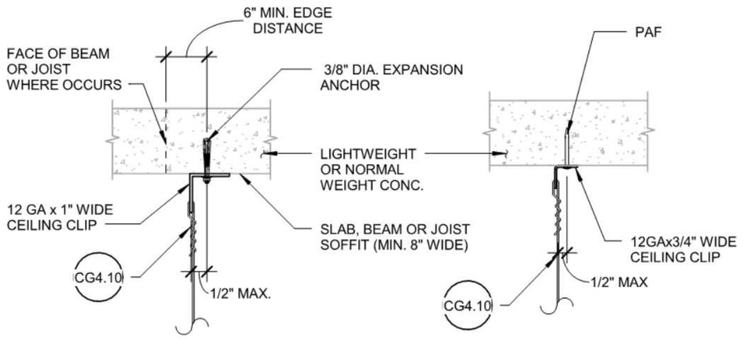
1. THIS IS APPLIED FOR PERIMETER WIRE ATTACHEMENT OR WHERE OBSTRUCTION PREVENTS ATTACHMENT TO STRUCTURE ABOVE
2. RDP SHALL DESIGN FRAMING WALL TO CARRY THE CEILING LOAD. SEE TABLE BELOW FOR LOADS. LOADS ASSUME A TRIBUTARY AREA OF 16 SQ FT AND ARE UNFACTORED.
3. WALLS SHALL BE DESIGNED FOR HANGER FORCES BELOW. AT FREE JOINT, HANGER WIRE SHALL HAVE A MINIMUM STRETCH LENGTH (CLR LENGTH BTWN TURNS) OF 12"



OPTION 3

HANGER FORCES

	VERTICAL	HORIZONTAL
DEAD	64 LBS	11 LBS
SEISMIC (0.14S_{DS} Wp)		
S_{DS} <= 1.15	11 LBS	2 LBS
1.15 < S_{DS} <= 1.73	16 LBS	3 LBS
1.73 < S_{DS} <= 2.50	23 LBS	4 LBS



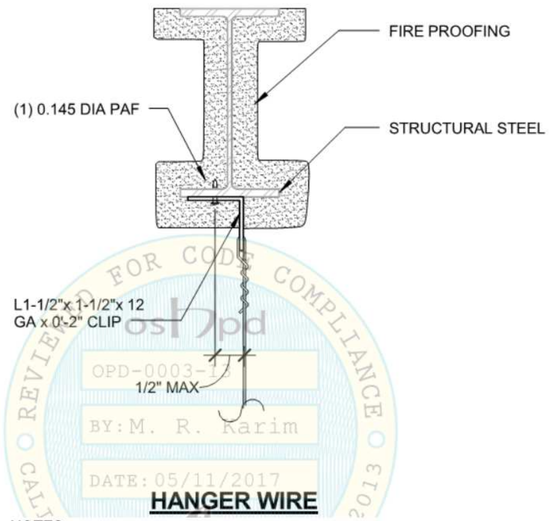
OPTION 1

OPTION 2

NOTES:

1. LOAD TEST IN ACCORDANCE WITH GENERAL NOTE 14(g), PAGE CG0.02 SHALL BE REQUIRED
2. PRIOR TO INSTALLATION, REINFORCING/PRESTRESSING BAR LOCATIONS SHALL BE DETERMINED BY NON-DESTRUCTIVE TESTING
3. REFER TO CG4.10 FOR ADDITIONAL DETAILS

A1 CG4.22 HANGER WIRE - CONCRETE SLAB, BEAM, OR JOIST
SCALE: NTS



HANGER WIRE

NOTES :

1. BEAM FLANGE THICKNESS SHALL NOT BE LESS THAN 3/16" OR MORE THAN 3/8"
2. FRAMING MEMBERS SHALL BE DESIGNED TO CARRY THE CEILING LOADS, RDP TO VERIFY
3. RDP IN RESPONSIBLE CHARGE, I.O.R. AND CONTRACTOR SHALL VERIFY THAT NO PAF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE ANSI/AISC 341-10.

A3 CG4.23 HANGER WIRE - STRUCTURAL STEEL
SCALE: NTS

A5 CG4.25 HANGER WIRE - METAL STUD WALL
SCALE: NTS

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

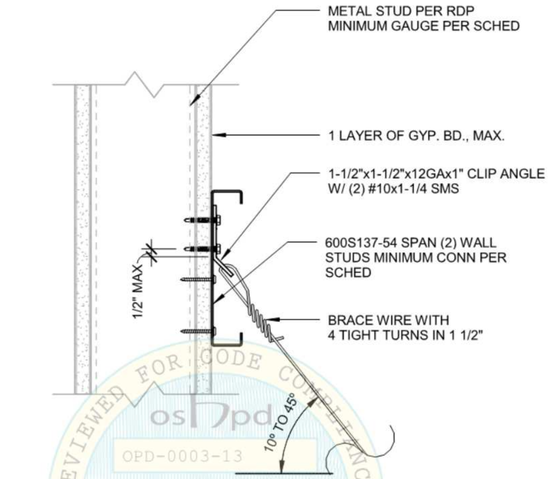
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FM08430011869	047-10071-002

SHEET NAME
DETAILS - CEILINGS

SHEET NUMBER
AE518

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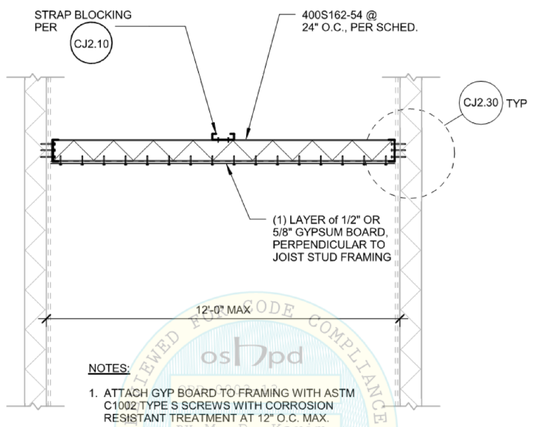


WALL STUD GAUGE	CONN TO WALL STUD	CONN TO WALL STUD ALT [3]
20 GA	(5) #10x1-1/4" SMS	(3) #10x1-1/4" SMS
18 GA	(4) #10x1-1/4" SMS	(2) #10x1-1/4" SMS

NOTES:

1. RDP SHALL DESIGN FRAMING WALL TO CARRY THE CEILING LOAD PER NOTE #2.
2. SEISMIC BRACE WIRE FORCE = 473 LBS (LRFD LOAD). BRACING WIRE SHALL HAVE A MINIMUM STRETCH LENGTH (CLR LENGTH BTWN TURNS) OF 12", WHEN USED AT FREE JOINT.
3. APPLIES WHERE CLIP ATTACHED DIRECTLY TO WALL STUD.

D1 CG4.35 BRACING WIRE - METAL STUD WALL
SCALE: NTS



NOTES:

1. ATTACH GYP BOARD TO FRAMING WITH ASTM C1002 TYPE S SCREWS WITH CORROSION RESISTANT TREATMENT AT 12" O.C. MAX.
2. WHEN GYPSUM BOARD IS TO BE APPLIED TO BOTH CEILING AND WALLS, GYPSUM BOARD SHALL BE APPLIED FIRST TO THE CEILING AND THEN TO THE WALLS IN ACCORDANCE WITH ASTM C840.

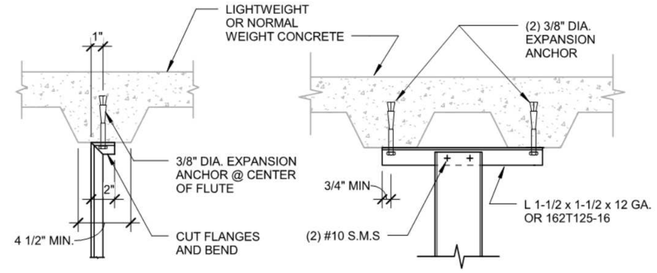
JOIST GYP-BOARD CEILING SECTION

JOIST SPAN SCHEDULES

JOIST STUD SIZE	S_{DS} (g)	BRIDGING LOCATION	F_P ALLOWABLE FOR WALL DESIGN
SCHEDULE A - JOIST CONNECTION FASTENS THROUGH (2) LAYERS OF GYPSUM BOARD MAX			
400S162-54	$S_{DS} \leq 1.15$	MIDPOINT	6.6 plf
	$1.15 < S_{DS} \leq 1.73$	MIDPOINT	9.9 plf
	$1.73 < S_{DS} \leq 2.59$	MIDPOINT	14.9 plf

1. SEE CJ2.31 FOR TYPICAL 4'-1" x 2'-1" MAX OPENING IN JOISTED CEILING.

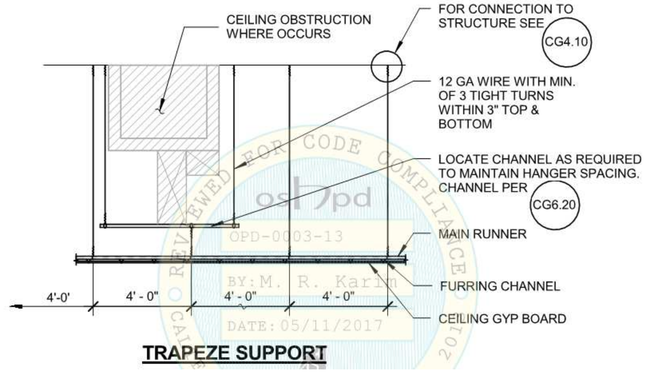
A1 CJ2.20 JOISTED GYP BOARD CEILING MAXIMUM SPANS
SCALE: NTS



OPTION 1 **OPTION 2**

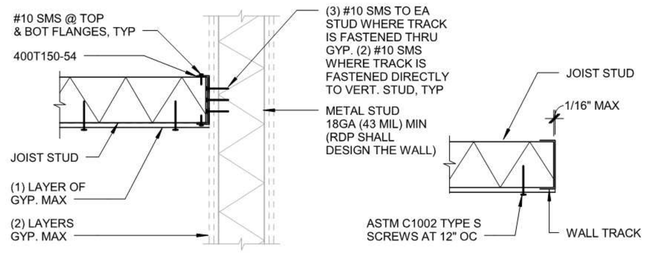
CHANNEL STRUT

E3 CG5.20 STRUT CONNECTION TO CONCRETE OVER METAL DECK
SCALE: NTS



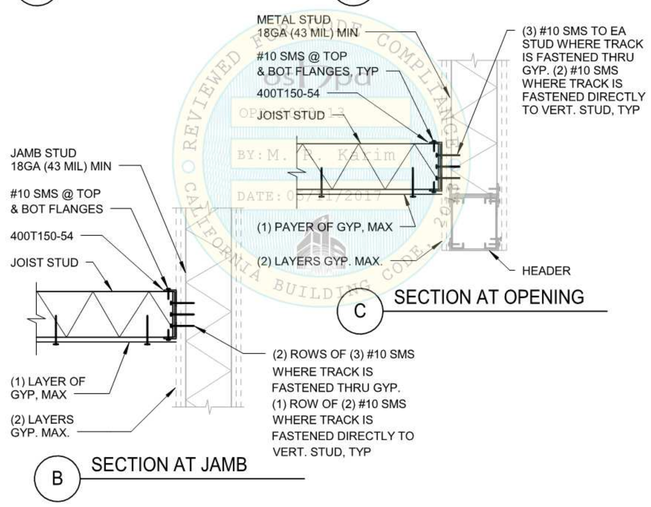
TRAPEZE SUPPORT

D3 CG6.10 OBSTRUCTION - TRAPEZE CONDITION
SCALE: NTS



A SECTION AT TYP. STUD

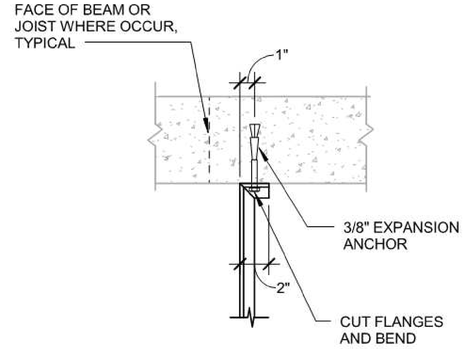
D GYP BOARD ATTACHMENT



C SECTION AT OPENING

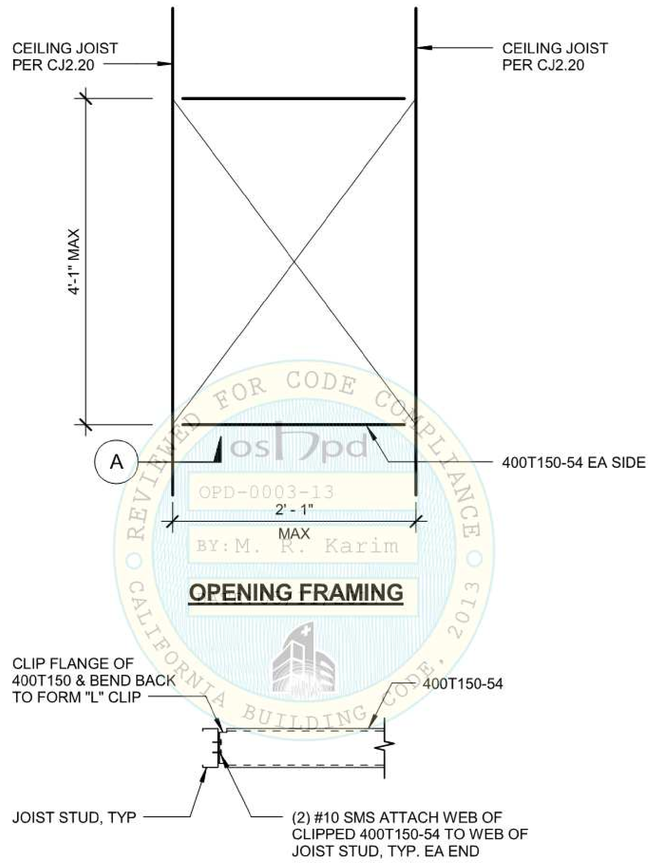
B SECTION AT JAMB

A4 CJ2.30 JOISTED GYP BOARD CEILING CONNECTIONS
SCALE: NTS



CHANNEL STRUT

E6 CG5.30 STRUT CONNECTION TO CONCRETE SLAB, BEAM, OR JOIST
SCALE: NTS



OPENING FRAMING

A **TYPICAL CONNECTION**

A6 CJ2.31 JOISTED GYP BOARD CEILING AT OPENINGS
SCALE: NTS

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHEN A. KEARCH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
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AGENCY APPROVAL STAMP

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APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

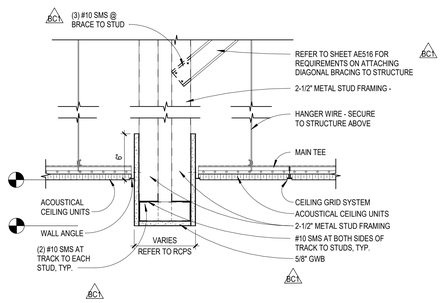
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DETAILS - CEILINGS

SHEET NUMBER
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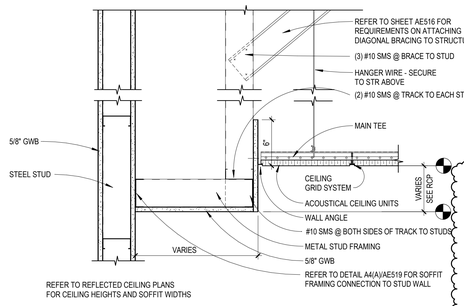
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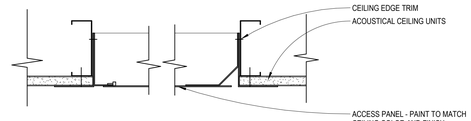
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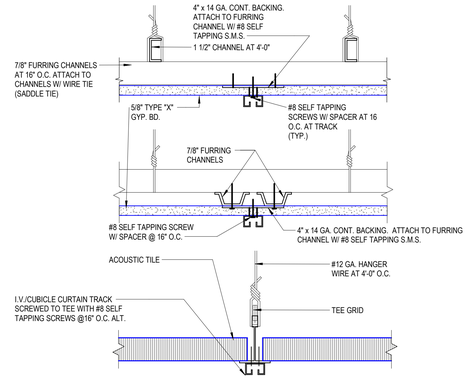
E1 BULKHEAD DETAIL 2
SCALE: 1 1/2" = 1'-0"



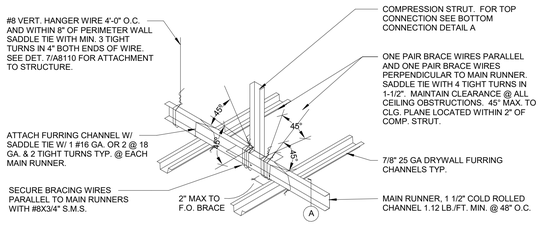
E2 SOFFIT DETAIL - GWB AND APC 3
SCALE: 1 1/2" = 1'-0"



E4 ACCESS PANEL DETAIL
SCALE: 3" = 1'-0"



E6 I.V. /CUBICLE CURTAIN TRACK
SCALE: 3" = 1'-0"

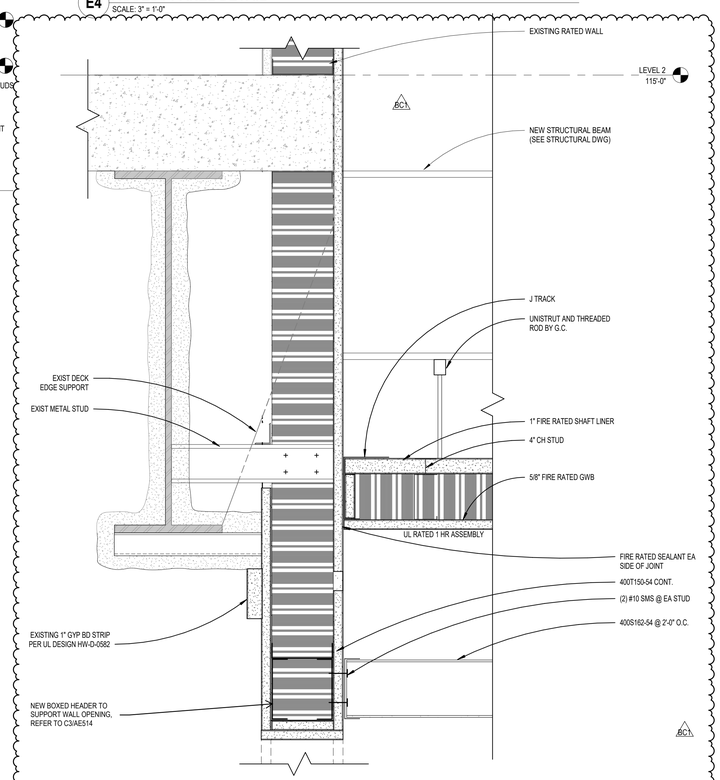


COMPRESSION STRUT SIZE TABLE:

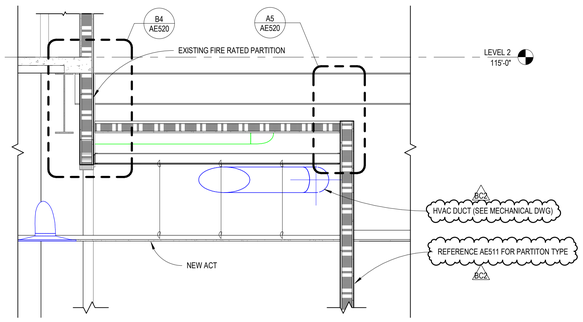
LIMITING HEIGHT	STRUT SIZE
7' - 0 "	2 1/2" x 1 1/4" 20 GA
10' - 0"	4" 1 5/8" 20 GA
21' - 6"	4" x 2" 20 GA

NOTES:
1. MAX SLENDERNESS RATIO (K/lr) OF 200. OTHER COMPRESSION STRUT SECTIONS MAY BE SUBMITTED WITH SUPPORTING CALCULATIONS.
2. SCHEDULES COMPRESSION STRUTS BASED ON STEEL STUD MANUFACTURER'S ASSOCIATION STANDARDS WITH STEEL STRENGTH OF 33KSI
3. PREFABRICATED COMPRESSION MAY BE USED AS AN ALTERNATIVE: USG DOWN COMPRESSION POST TYPE VSA (ICC-ESR-1222) OR APPROVED EQUAL W/ ICC REPORT NUMBER

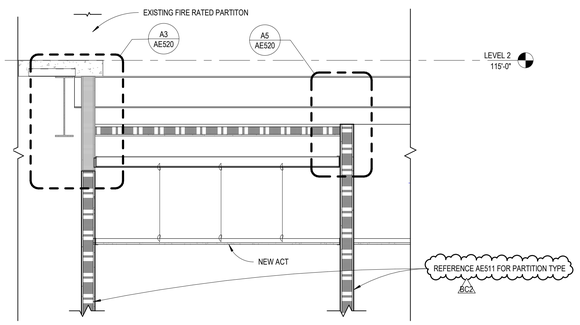
C1 SUSP GYP - COMPRESSION STRUT
SCALE: 3" = 1'-0"



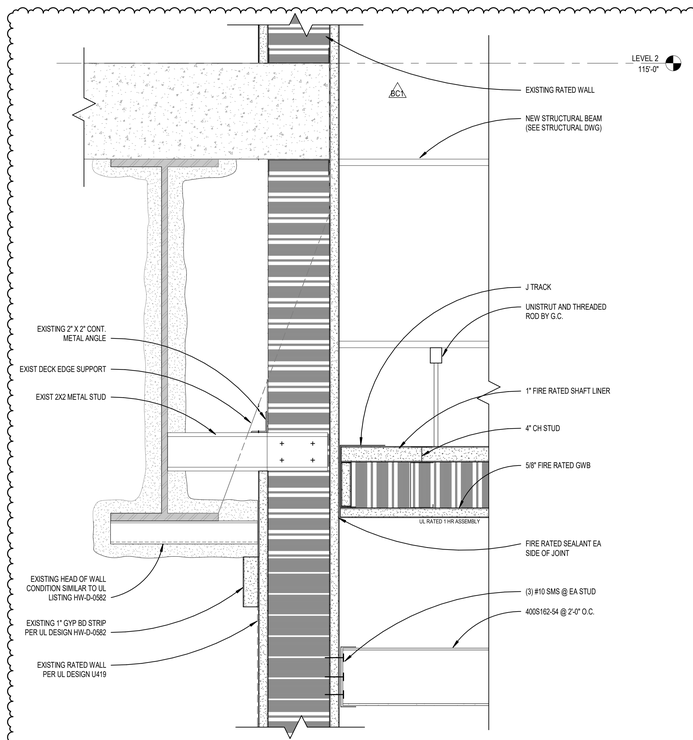
B4 SECTION DETAIL - RATED LID AT LEVEL 2 FLOOR
SCALE: 3" = 1'-0"



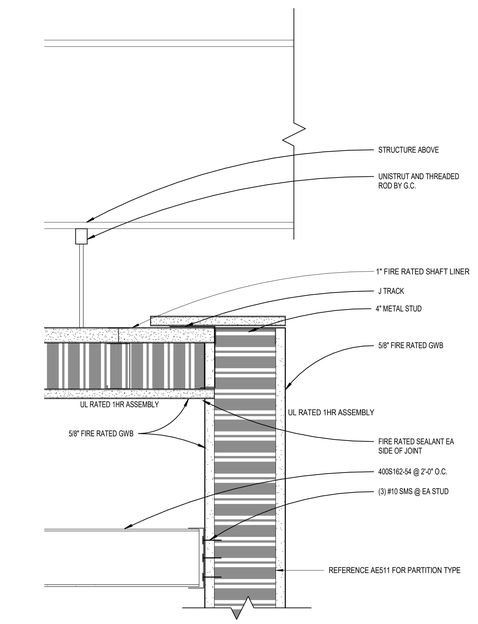
B1 SECTION - 2HR RATED LID
SCALE: 1/2" = 1'-0"



A1 SECTION - 1 HR RATED LID (2)
SCALE: 1/2" = 1'-0"



A3 SECTION DETAIL - RATED LID AT LEVEL 2 (2)
SCALE: 3" = 1'-0"



A5 SECTION DETAIL - RATED LID AT CORRIDOR E1072
SCALE: 3" = 1'-0"

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1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

DETAILS - CEILINGS

SHEET NUMBER

AE520

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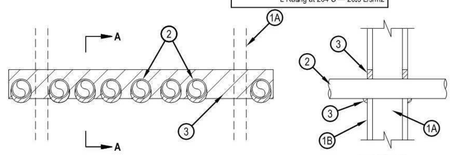
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System No. W-L-1389

WL 1389

Classified by Underwriters Laboratories Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1and 3)	F Ratings — 1 and 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating at Ambient — Less Than 1 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Items 1 and 3)
L Rating at 400 F — 4 CFM/sq ft	FTH Ratings — 0 Hr
	L Rating at Ambient — Less Than 5,1 Ls/m2
	L Rating at 204 C — 20,3 Ls/m2



1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the Individual U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing shall consist of min 3-5/8 in. (92 mm) wide steel studs spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — Thickness, type, number of layers and fasteners, as specified in the Individual Wall and Partition Design. Max height of opening is 3-1/2 In. (89 mm). Max width of opening is 32 In. (813 mm).
   The hourly F, FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrants — Multiple pipes or conduits installed in single layer annulus within the firestop system. The annular space between the pipes and conduits and the edges of the opening shall be min 0 in. (point contact) to max 1-3/8 in. (35 mm). The separation between pipes and conduits to be a min 0 In. (point contact) to a max 1-1/4 In. (32 mm), except that for L Rating, the minimum separation between penetrants shall be 1/2 In. (13 mm). Pipes and conduits to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or conduits may be used:
   A. Steel Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
   B. Conduit — Nom 2 in. (51 mm) diam (or smaller) rigid steel conduit or steel electrical metallic tubing (EMT).
3. Fill Void or Cavity Materials* - Sealant — Min 5/8 In., (16 mm) thickness of fill material installed to completely fill annular space between pipes, conduits and gypsum flush with each surface of wall. Min 1/2 In., (13 mm) diam bead of fill material applied to the through penetrant/wall interface at the point contact locations on both sides of the wall. The 2 hour F, FH Ratings apply only when FS-ONE Sealant is used.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — Hilti CP 606 Flexible Firestop Sealant or FS-ONE MAX Intumescent Sealant
   *Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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November 15, 2017

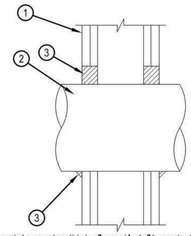
D1 **UL DESIGN NO. W-L-1389**
SCALE: NTS

System No. W-L-1297

WL 1297

Classified by Underwriters Laboratories Inc. to UL 1479 and CAN/ULC-S115

F Ratings -- 1 and 2 Hr (See Item 1)
T Rating -- 0 Hr
L Rating at Ambient -- Less than 1 CFM/Sq Ft
L Rating at 400° F -- Less than 1 CFM/Sq Ft



1. Wall Assembly — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the Individual U300, U400, V400 or W400 Series Wall and Partition Designs In the UL Fire Resistance Directory and shall include the following construction features.
   A. Studs — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B, Gypsum Board* — Nom 5/8 In. (16 mm) thick, 4 ft (1,22 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified In the Individual U300, U400 or V400 Series Design In the Fire Resistance Directory, Max diam of opening is 32 In. (813 mm).
   The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrant — One metallic pipe, conduit or tubing installed concentrically or eccentrically within the firestop system. Pipe, conduit or tube to be rigidly supported on both sides of wall assembly. The annular space between the pipe, conduit or tube and periphery of the opening shall be min 0 In (0 mm, point contact) to max 2 In. (51 mm) In 2 hr fire rated walls and min 0 In (0 mm, point contact) to max 1 In. (25 mm) In 1 hr fire rated walls. As an option, for through penetrant types 2A, 2B and 2C only in nom diameters not exceeding 4 In. (102 mm), the penetrant can be installed with continuous point contact. The following types and sizes of metallic pipes, conduit or tube may be used:
   A, Steel Pipe — Nom 30 In., (762 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
   B, Iron Pipe — Nom 30 In., (762 mm) diam (or smaller) cast or ductile iron pipe.
   C, Conduit — Nom 4 In, (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or 6 In. diam steel conduit.
   D, Copper Tube — Nom 6 In. (152 mm) diam (or smaller) Type L (or heavier) copper tube.
   E, Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material*-Sealant — Min 5/8 In. (16 mm) or 1-1/4 In. (32 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall, for 1 hr and 2 hr fire rated wall assemblies, respectively. A min 1/2 In. (13 mm) diam bead of fill material shall be applied at the pipe/wall interface at the point contact and continuous point contact location.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP606 Flexible Firestop Sealant
   * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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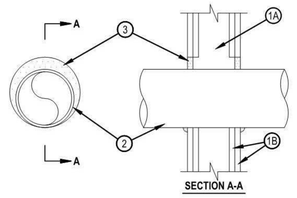
D3 **UL DESIGN NO. W-L-1297**
SCALE: NTS

System No. W-L-1054

WL 1054

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings —1 and 2 Hr (See Items 1 and 3)	F Ratings — 1 and 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Ratings — 1 and 2 Hr (See Items 1 and 2)
L Rating at Ambient — Less Than 1 CFM/sq ft	FH Ratings —1 and 2 Hr (See Items 1 and 3)
L Rating at 400 F — Less Than 1 CFM/sq ft.	FTH Ratings — 0 Hr
	L Rating at Ambient — Less Than 1 CFM/sq ft
	L Rating at 400 F — Less Than 1 CFM/sq ft



1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.
   B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. (819 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls.
The F and FH Ratings of the firestop system are equal to the fire rating of the wall assembly.

Hilti Firestop Systems

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October 14, 2015

Page: 1 of 2

D5 **UL DESIGN NO. W-L-1054**
SCALE: NTS

System No. W-L-1054

WL 1054

2. Through-Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. (57 mm). Pipe may be installed with continuous point contact. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) . diam steel conduit.
   D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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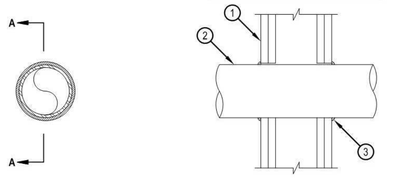
Page: 2 of 2

System No. W-L-1304

WL 1304

Classified by Underwriters Laboratories Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient - Less Than 1 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating At 400 F - Less Than 1 CFM/sq ft	FTH Ratings — 0 Hr
	L Rating At Ambient - Less Than 1 CFM/sq ft
	L Rating At 400 F - Less Than 1 CFM/sq ft



1. Wall Assembly — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the Individual U300, U400, V400 or W400 Series Wall and Partition Designs In the UL Fire Resistance Directory and shall include the following construction features.
   A. Studs — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — Nom 5/8 in. (13 mm) thick, 4 ft (1,219 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified In the Individual Wall and Partition Design. Max diam of opening is 5 in. (127 mm).
   The hourly F, FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrant — One metallic pipe, conduit or tubing installed concentrically or eccentrically within the firestop system. Pipe, conduit or tube to be rigidly supported on both sides of wall assembly. The annular space between the pipe or tube and periphery of the opening shall be min 0 In (0 mm, point contact) to max 1/2 In. (13 mm). The following types and sizes of metallic pipes, conduit or tube may be used:
   A. Steel Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
   B, Iron Pipe — Nom 4 In. (102 mm) diam (or smaller) cast or ductile iron pipe.
   C, Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT).
3. Fill, Void or Cavity Material* - Sealant — Min 1/2 In. (13 mm) thickness of fill material (not shown) applied within the annulus, flush with both surfaces of wall. At the point contact location, or when the annulus is 1/8 In. (3 mm) or less, between pipe and wall, a min 1/4 In. (6 mm) diam bead of fill material shall be applied at the pipe/wall interface.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP606 Flexible Firestop Sealant, FS-One Intumescent Sealant or FS-ONE MAX Intumescent Sealant.
   * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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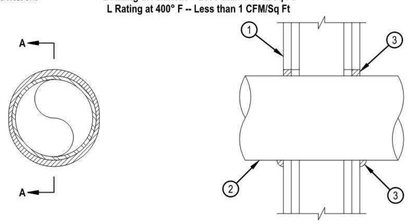
A1 **UL DESIGN NO. W-L-1304**
SCALE: NTS

System No. W-L-1290

WL 1290

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

F Rating -- 1 and 2 Hr (See Item 1)
T Rating -- 0 Hr
L Rating at Ambient -- Less than 1 CFM/Sq Ft
L Rating at 400° F -- Less than 1 CFM/Sq Ft



1. Wall Assembly — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features.
   A. Studs — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — Nom 5/8 in. (16 mm) thick, 4 ft (1.2 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Design in the Fire Resistance Directory. Max diam of opening is 5 in. (127 mm).
   The hourly F and T Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrant — One metallic pipe, conduit or tubing installed concentrically or eccentrically within the firestop system. Pipe, conduit or tube to be rigidly supported on both sides of wall assembly. The annular space between the pipe or tube and periphery of the opening shall be min 0 in (point contact) to max 1/2 in. (13 mm). As an option, for through penetrant types 2A, 2B and 2C only in nom diameters not exceeding 4 in. (102 mm), the penetrant can be installed with continuous point contact. The following types and sizes of metallic pipes, conduit or tube may be used:
   A. Steel Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
   B. Iron Pipe — Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or steel conduit.
   D. Copper Tube — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tube.
   E. Copper Pipe — Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material*-Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact and continuous point contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe/wall interface.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP606 Flexible Firestop Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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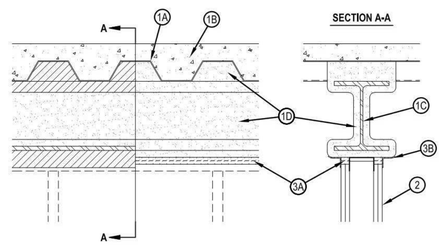
A3 **UL DESIGN NO. W-L-1290**
SCALE: NTS

System No. HW-D-0259

HWD 0259

Classified by Underwriters Laboratories Inc. to UL 2079 and CAN/ULC-S115

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Items 1 and 2)	F Ratings — 1 and 2 Hr (See Items 1 and 2)
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Items 1 and 2)
Class II Movement Capabilities — 50% Compression or Extension	FH Ratings — 1 and 2 Hr (See Items 1 and 2)
L Rating At Ambient — Less Than 1 CFM/sq ft	FTH Ratings — 1 and 2 Hr (See Items 1 and 2)
L Rating At 400 F — Less Than 1 CFM/sq ft	Nominal Joint Width - 1-1/2 In.
	Class II Movement Capabilities — 50% Compression or Extension
	L Rating At Ambient — Less Than 1 CFM/sq ft
	L Rating At 400 F — Less Than 1 CFM/sq ft



1. Floor Assembly — The fire-rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described In the Individual Floor-Ceiling Designs In the Fire Resistance Directory and shall Include the following construction features:
   A. Steel Floor and Form Units* — Max 3 in. (76 mm) deep galv steel fluted floor units.
   B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.
   C. Structural Steel Support — Steel beam, as specified in the Individual D700 or D900 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support centered over and parallel with wall assembly.
   D. Spray-Applied Fire Resistive Materials* — Steel floor units and structural steel beam to be sprayed with the thickness of material specified in the Individual D700 Series Design or the structural steel supports to be sprayed in accordance with the specifications in the Individual D900 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. Additional material shall be applied to the web of the steel beam on each side of the wall. For a 1 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be min 13/16 In. (21 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be min 1-3/8 In. (35 mm).
   GCP APPLIED TECHNOLOGIES INC — Types MK-6-HY or MK-10HB
   D1. Spray-Applied Fire Resistive Material* — Steel floor units and structural steel support to be sprayed with the min thickness of material specified in the Individual D700 or D900 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. Additional material shall be applied to the web of the steel beam on each side of the wall. For a 1 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be min 11/16 In. (18 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be min 1-1/2 In. (38 mm).
   ISOLATEK INTERNATIONAL — Type 300
2. Wall Assembly* — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified In the Individual U400, V400 or W400 Series Wall and Partition Design In the UL Fire Resistance Directory and shall Include the following construction features:
   A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 In. (6 mm) greater than max extended joint width. Ceiling runner centered beneath and parallel with steel beam (Item 1C). Ceiling runner secured to steel beam through spray-applied fire resistive material with steel fasteners spaced max 24 In. (610 mm) OC.
   A1. Light Gauge Framing* — Slotted Ceiling Runner As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner centered beneath and parallel with steel beam (Item 1C). Slotted ceiling runner secured to steel beam with steel fasteners, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK, SLPTRK325
   CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
   CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H
   MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
   RAM SALES L L C — RAM Slotted Track
   SCAFCO STEEL STUD MANUFACTURING CO
   TELLING INDUSTRIES L L C — True-Action Deflection Track
   THE STEEL NETWORK INC — VertiTrack VT series. 250VT, 362VT, 400VT, 600VT and 800VT
   A2. Light Gauge Framing* — Vertical Deflection Ceiling Runner As an alternate to the ceiling runners in Item 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner centered beneath and parallel with steel beam (Item 1C). Vertical Deflection ceiling runner secured to steel beam with steel fasteners, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   THE STEEL NETWORK INC — VertiTrack VTD362, VTD400, VTD600 and VTD800.
   A3. Light Gauge Framing* - Notched Ceiling Runner — As an alternate to the ceiling runners In Items 2A through 2A2, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   OLMAR SUPPLY INC — Type SCR

Hilti Firestop Systems

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Page: 1 of 3

A5 **UL DESIGN NO. HW-D-0259**
SCALE:1 : 3

System No. HW-D-0259

HWD 0259

Hilti Firestop Systems

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Page: 2 of 3

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE RE QUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO. FM08430011869

CONSULTANT PROJ. NO. 047-10071-002

SHEET NAME

UL DETAILS

SHEET NUMBER

AE531

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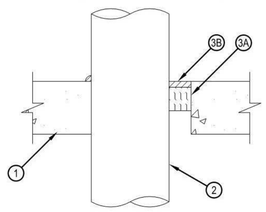
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CAJ 1435

System No. C-AJ-1435

F Rating - 2 Hr
T Rating - 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft
L Rating At 400 F — Less Than 1 CFM/sq ft

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115



1. Floor or Wall Assembly — Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diameter of opening is 31-7/8 in.
   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Through Penetrants — One metallic pipe, conduit or tubing to be installed concentrically or eccentrically within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of floor assembly. The annular space between pipe conduit or tubing and the periphery of the opening shall be min 0 in. (point contact) to max 1-7/8 in. The following types of pipe, conduit or tubing may be used:
   Steel Pipe — Nom 30 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
   Iron Pipe — Nom 30 in. diam (or smaller) cast or ductile iron pipe.
   Conduit — Nom 6 in. diam (or smaller) rigid steel conduit.
   Conduit — Nom 4 in. diam (or smaller) steel electrical metallic conduit.
   Copper Tubing — Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
   Copper Pipe — Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
3. Firestop System — The firestop system shall consist of the following:
   A. Packing Material — Min 2 in. (51mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of fill material.
   B. Fill Void or Cavity Material* - Sealant — Min 1/2 in. (13mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall. At the point contact location between pipe and concrete, a min 1/2 in. (13mm) diam bead of fill material shall be applied at the concrete/pipe interface on the top surface of floor or both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606 Sealant

*Bearing the UL Classification Mark

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Hilti Firestop Systems

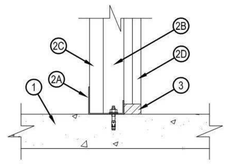
D1 UL DESIGN NO. C-AJ-1435
SCALE: NTS

BWS 0023

System No. BW-S-0023

Assembly Ratings — 1 and 2 Hr (See Item 2)
Joint Width — 3/4 and 1 in. Max (See Item 3)

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115



1. Floor Assembly — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete.
2. Wall Assembly — The 1 or 2 hr fire rated gypsum board/steel stud shaft wall assembly shall be constructed of the materials and in the manner specified in the Individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory. In addition, the wall may Incorporate a head-of-wall joint system constructed as specified in the HW Series Joint Systems In the UL Fire Resistance Directory. The wall shall Include the following construction features:
   A. Floor and Ceiling Runners — J-shaped runner, 2-1/2 In. (64 mm) wide with unequal legs of min 1-1/4 In. (32 mm) and 2 In. (51 mm), fabricated from min 24 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 In. (51 mm) from ends and not greater than 12 In. (610 mm) OC.
   B. Steel Studs — C-H-shaped studs, 2-1/2 In. (64 mm) wide by 1-1/2 In. (38 mm) deep, fabricated from min 25 MSG galv steel, cut to lengths 3/8 to 1/2 In. (10 to 13 mm) less than floor to ceiling height and spaced 24 In. (610 mm) OC. Studs nest In floor runner at bottom and J runner or slotted ceiling track at top. After Installation of gypsum board liner panels (Item 2C), studs secured to flange of floor runner on finished side of wall only with No. 6 by 1/2 In. (13 mm) long self-drilling, self-tapping steel screws. Studs secured to flange of slotted ceiling track on finished side of wall only with No. 8 by 1/2 In. (13 mm) long self-drilling, self-tapping wafer head steel screws at slot midheight.
   C. Gypsum Board* — 1 In. (25 mm) thick by 24 In. (610 mm) wide gypsum board liner panels as specified In the Individual Wall and Partition Series design. Panels cut 1 In. (25 mm) less In length than floor to ceiling height. Vertical edges Inserted In "H"-shaped section of "C-H" studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 In. (41 mm) long Type S steel screws spaced max 12 In. (305 mm) OC.
   D. Gypsum Board* — Gypsum board sheets, 1/2 or 5/8 In. (13 or 16 mm) thick, applied vertically or horizontally on finished side of wall as specified In the Individual Wall and Partition Series design. A max 1 In. (25 mm) gap when CP 606 sealant (Item 3) Is used, or 3/4 In. (19 mm) gap when CP 605 sealant (Item 3) Is used, shall be maintained between the bottom of the gypsum board and the top surface of the concrete floor. The screws attaching the gypsum board layers to the C-H studs shall be located 1 In. (25 mm) above the top of the J-runner or slotted ceiling track. No gypsum board attachment screws are to penetrate the ceiling J-runner and slotted ceiling track.
   The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.
3. Fill, Void or Cavity Material* — Sealant — Max separation between top of floor and bottom of gypsum board on the finish side is 1 In. (25 mm) when CP 606 sealant is used, and 3/4 In. (19 mm) when CP 605 sealant is used. The depth of sealant to be Installed to fill the linear gap between the bottom of the gypsum board sheets (Item 2D) and the top of the concrete floor shall be equal to the overall thickness of the gypsum board sheets, flush with the finished side of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606 or CP 605

* Indicates such products shall bear the UL or cUL Certification Mark for Jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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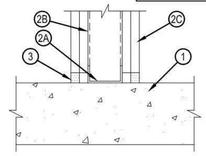
D3 UL DESIGN NO. BW-S-0023
SCALE:1 : 3

BWS 0002

System No. BW-S-0002

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
Nominal Joint Width - 3/4 In.	FT Ratings — 1 and 2 Hr (See Item 1)
L Rating at Ambient — Less than 1 CFM/Lin Ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating at 400° F — Less than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 1)
	Nominal Joint Width - 3/4 In.
	L Rating at Ambient — Less than 1 CFM/Lin Ft
	L Rating at 400° F — Less than 1 CFM/Lin Ft



1. Floor Assembly — Min 4-1/2 In. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete. Floor may also be constructed of any 6 In. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.
   See Precast Concrete Units category in the Fire Resistance Directory for names of manufactures.
2. Wall Assembly — The 1 or 2 h fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and In the manner specified In the Individual U400, V400 or W400 Series Wall or Partition Design In the UL Fire Resistance Directory. In addition, the wall may Incorporate a head-of-wall joint system as specified In the HW Series Joint Systems In the UL Fire Resistance Directory. The wall shall Include the following construction features:
   A. Steel Floor Runners — Floor runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Floor runners to be provided with 1-1/4 In. (32 mm) flanges. Runners secured with steel fasteners spaced 12 In. (305 mm) OC.
   B. Studs — Steel studs to be min 3-1/2 In. (89 mm) wide. Studs cut 1/2 to 3/4 In. (13 to 19 mm) less In length than assembly height with bottom nesting In, resting on and fastened to floor runner with sheet metal screws. Stud spacing not to exceed 24 In. (610 mm) OC.
   C. Gypsum Board* — Gypsum board Installed to a min total thickness of 5/8 or 1-1/4 In. (16 or 32 mm) on each side of wall for a 1 or 2 hr rated wall, respectively. Wall to be constructed as specified In the Individual U400, V400 or W400 Series Design In the UL Fire Resistance Directory, except that a max 3/4 In. (19 mm) gap shall be maintained between the bottom of gypsum board and top of concrete floor. The hourly fire rating of the joint system Is equal to the hourly fire rating of the wall.
3. Fill, Void or Cavity Material* Sealant — Max separation between top of floor and bottom of gypsum board wall sheathing Is 3/4 In. (19 mm). Min 5/8 In. (16 mm) thickness of fill material Installed on each side of the wall between the bottom of the gypsum board and the top of the concrete floor, flush with each surface of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 605 Bottom of Wall Firestop Sealant, CP601S Elastomeric Firestop Sealant, CP606 Flexible Firestop Sealant, CFS-S SIL GG, FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for Jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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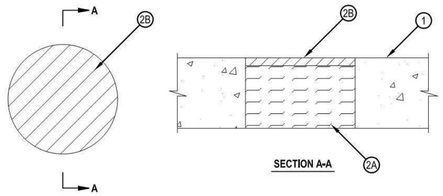
D5 UL DESIGN NO. BW-S-0002
SCALE: NTS

CAJ 0070

System No. C-AJ-0070

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 2 Hr	FT Rating — 2 Hr
	FH Rating — 2 Hr
	FTH Rating — 2 Hr
	L Rating At Ambient — Less Than 1 CFM/sq ft



1. Floor or Wall Assembly — Min 4-1/2 In. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening Is 7 In. (178 mm).
   See Concrete Blocks (CAZT) category In the Fire Resistance Directory for names of manufacturers.
2. Firestop System — The firestop system shall consist of the following:
   A. Packing Material — Min. 4 In. (102 mm) thickness of 4 pcf (64 kg/m3) mineral wool batt Insulation tightly packed Into the opening as a permanent form. Packing material to be recessed from top surface of floor and both surfaces of wall as required to accommodate the required thickness of fill material.
   B. Fill Void or Cavity Materials* — Sealant — Min 1/2 In. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS -ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for Jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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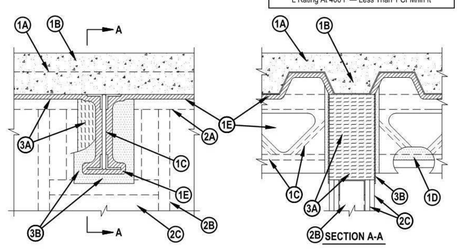
A1 UL DESIGN NO. C-AJ-0070
SCALE: NTS

HWD 0218

System No. HW-D-0218

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 1 In.	FT Ratings — 1 and 2 Hr (See Item 2)
Class II Movement Capabilities — 25% Compression or Extension	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating At Ambient — Less Than 1 CFM/lin ft	FTH Ratings — 1 and 2 Hr (See Item 2)
L Rating At 400 F — Less Than 1 CFM/lin ft	Nominal Joint Width - 1 In.
	Class II Movement Capabilities — 25% Compression or Extension
	L Rating At Ambient — Less Than 1 CFM/lin ft
	L Rating At 400 F — Less Than 1 CFM/lin ft



1. Floor Assembly — The fire-rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor and Form Units* — Max 3 in. (76 mm) deep galv steel fluted floor units.
   B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.
   C. Structural Steel Support (Optional) - Steel beam or open-web steel joist, as specified in the individual D700 or D900 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support oriented perpendicular to wall assembly. — Steel beam or open-web steel joist, as specified in the individual D700 or D900 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support oriented perpendicular to wall assembly.
   D. Steel Lath — Where open-web steel joists pass through the fire rated wall, 3/8 in. diamond mesh expanded steel lath having a nom weight of 1.7 to 3.4 lb per sq yd (0.9 to 1.8 kg/m2) shall be secured to one side of each joist with steel tie wire and the lath shall be fully covered with no min thickness requirement.

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Hilti Firestop Systems

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A3 UL DESIGN NO. HW-D-0218
SCALE:1 : 3

HWD 0218

E. Spray-Applied Fire Resistive Material* — After the installation of the ceiling runner, (Item 2A, 2A1 or 2A2) steel floor units to be sprayed with the thickness of material specified in the individual D700 Series Design or the structural steel supports to be sprayed in accordance with the specifications in the individual D900 Series Design. Material is to be excluded from the steel floor units, directly above the gypsum board and from the flanges of the ceiling runners.
ISOLATEK INTERNATIONAL — Type 300
W R GRACE & CO CONSTRUCTION PRODUCTS DIV — Types MK-6/HY or MK-10HB

1A. Roof Assembly — (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 or P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features as applicable:
   A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.
   B. Roof Insulation — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the steel roof deck.
   C. Structural Steel Support — (Optional) - Steel beam or open-web steel joist, as specified in the individual P700 or P900 Series Roof-Ceiling Design, used to support steel roof deck. Structural steel support oriented perpendicular to wall assembly. Steel beam or open-web steel joist, as specified in the individual P700 or P900 Series Roof-Ceiling Design, used to support steel roof deck. Structural steel support oriented perpendicular to wall assembly.
   D. Steel Lath — Where open-web steel joists pass through the fire rated wall, 3/8 in. diamond mesh expanded steel lath having a nom weight of 1.7 to 3.4 lb per sq yd (0.9 to 1.8 kg/m2) shall be secured to one side of each joist with steel tie wire and the lath shall be fully covered with no min thickness requirement.
   E. Spray-Applied Fire Resistive Material* — After the installation of the ceiling runner, (Item 2A, 2A1 or 2A2) steel roof deck to be sprayed with the thickness of material specified in the individual P700 Series Design or the structural steel supports to be sprayed in accordance with the specifications in the individual P700 or P900 Series Design. Material is to be excluded from the steel roof deck, directly above the gypsum board and from the flanges of the ceiling runners.
   ISOLATEK INTERNATIONAL — Type 300
   W R GRACE & CO - CONN — Types MK-6/HY or MK-10HB

2. Wall Assembly* — The 1 or 2 h fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner centered beneath and parallel with valley of steel floor units (Item 1A). Ceiling runner secured to steel floor units with masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. A clearance of 1-1/2 in. (38 mm) shall be maintained between the ceiling runner and the spray-applied fire resistive material on the structural steel support members.
   A1 Light Gauge Framing*-Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, prior to the application of spray-applied fire resistive material, and secured with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
   CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
   CLARKDIETRICH BUILDING SYSTEMS — Types SLT, SLT-H
   MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
   SCAFCO STEEL STUD MANUFACTURING CO
   TELLING INDUSTRIES L L C — True-Action Deflection Track
   THE STEEL NETWORK INC — VertiTrack VT, series, 250VT, 362VT, 400VT, 600VT and 800VT
   A2. Light Gauge Framing*-Vertical Deflection Ceiling Runner — As an alternate to the ceiling runners in Item 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, prior to the application of spray-applied fire resistive material, and secured with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   THE STEEL NETWORK INC VertiTrack VTD362, VTD400, VTD600 and VTD800

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Hilti Firestop Systems

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A5 UL DESIGN NO. BW-S-0002
SCALE: NTS

HWD 0218

A3. Light Gauge Framing*- Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A2, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, prior to the application of spray-applied fire resistive material, and secured with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC.
OLMAR SUPPLY INC — Type SCR
A4. Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A through 2A3, ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Flange height of slotted ceiling runner shall be 3-1/4 in. (83 mm) with 2 in. (51 mm) deep slots. Slotted ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, prior to the application of spray-applied fire resistive material, and secured with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC.
SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track-Type SDLT
   B. Studs — Steel studs to be min 3-5/8 in. (92 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in, resting on and fastened to the floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. When vertical deflection runner (Item 2A2) is used, studs secured to vertical clip through slip bushing, supplied, with No.8 by 1/2 in. (13 mm) steel screws at midheight of slot of each slot. When slotted ceiling runner (Item 2A4) is used, steel studs cut in lengths 3/4 to 1-3/4 in. (19 to 44 mm) less than floor to ceiling height and secured to slotted ceiling runner with No. 8 by 1/2 (13 mm) long wafer head steel screws at +/- 3/16 in. (5 mm) of the mid-height of slot on each side of wall. A framed opening shall be constructed around each steel structural member A min clearance of 1 in. (25 mm) to a max of 4 in. (102 mm) shall be maintained between the framing and the spray-applied fire resistive material on the two sides of the structural support. The clearance between the framing and the spray-applied fire resistive material on the bottom of the structural steel support shall be max 2 in. (51 mm). Stud spacing not to exceed 24 in. (610 mm) OC.
   C. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (1.2 m) wide with square or tapered edges. The gypsum board type, number of layers an sheet orientation shall be as specified in the individual U400, V400 or W400 Series Design in the Fire Resistance Directory, except that a max 1-1/2 in. (38 mm) gap shall be maintained between top of gypsum board and bottom plane of steel floor units and between the top edge of the gypsum board and the spray applied fire resistive material on the structural steel support. The top row of screws shall be installed into the studs 1-1/2 to 2 in. (38 to 51 mm) below the bottom of the ceiling runner.
   The hourly ratings of the joint system are dependent on the hourly rating of the wall.
3. Joint System — Max separation between bottom of floor units and top of gypsum board at time of installation is 1-1/2 in. (38 mm). Max separation between spray-applied fire resistive material on bottom of structural support and framed opening in top of wall is 2 in. (51 mm). The joint system is designed to accommodate a max 25 percent compression or extension from its installed width. The joint system consists of a forming material and a fill material between the top of the gypsum board and the bottom of the floor, as follows
   A. Forming Material* — Nominal 4 in. (102 mm) thick pieces of nominal 4 pcf (64 kg/m3) forming material, sized to be flush with both surfaces of wall, placed to fully fill the framed opening around the structural steel support. Forming material to be installed with fibers vertical along the sides of the beam and pieces sized to attain a min compression rate of 25 percent in the thickness direction. Forming material to be installed with fibers horizontal at the bottom of the beam and pieces sized to attain a min compression rate of 50 percent in the thickness direction. Additional mineral wool batt insulation cut into strips to fill the gap between top of the gypsum board and bottom of floor units. Width of the strips shall be equal to the total thickness of the gypsum board. The strips of mineral wool shall be compressed 50 percent in thickness and firmly packed into the gap between the top of gypsum board and bottom of floor units.
   IIG MINWOOL L L C — MinWool-1200 Safing
   JOHNS MANVILLE INTERNATIONAL INC — Safing
   ROCK WOOL MANUFACTURING CO — Delta Board
   ROXUL INC — SAFE
   THERMAFIBER INC — Type SAF
   B. Fill, Void or Cavity Material* - Sealant — A min 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material sprayed of troweled on each side of wall to completely cover mineral wool forming material and to overlap min 1/2 in. (13 mm) onto gypsum board and min 2 in. (51 mm) onto the steel floor units or the spray applied material on the steel floor unit and on the structural support member on both sides of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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Hilti Firestop Systems

Page: 3 of 3

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE RE QUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

UL DETAILS

SHEET NUMBER

AE532

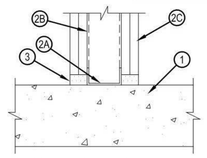
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System No. BW-S-0001

BWS 0001

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 3/4 In.	FT Ratings — 1 and 2 Hr (See Item 2)
L Rating at Ambient — Less than 1 CFM/Lin Ft	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating at 400° F — Less than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 2)
	Nominal Joint Width - 3/4 In.
	L Rating at Ambient — Less than 1 CFM/Lin Ft
	L Rating at 400° F — Less than 1 CFM/Lin Ft



1. Floor Assembly — Min 4-1/2 In. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also be constructed of any 6 In. (152 mm) thick UL Classified hollow-core Precast Concrete Units*. See Precast Concrete Units category in the Fire Resistance Directory for names of manufacturers.
2. Wall Assembly — The 1 or 2 h fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall or Partition Design in the UL Fire Resistance Directory. In addition, the wall may incorporate a head-of-wall joint system constructed as specified in the HW Series Joint Systems in the UL Fire Resistance Directory. The wall shall include the following construction features:
   A. Steel Floor Runner — Floor runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Floor runners to be provided with min 1-1/4 In. (32 mm) flanges. Runners secured with steel fasteners spaced 12 In. (305 mm) OC.
   B. Studs — Steel studs to be min 2-1/2 In. (64 mm) wide. Studs cut 1/2 to 3/4 In. (13 to 19 mm) less in length than assembly height with bottom nesting in, resting on and fastened to floor runner with sheet metal screws. Stud spacing not to exceed 24 In. (610 mm) OC.
   C. Gypsum Board* — Gypsum board installed to a min total thickness of 5/8 or 1-1/4 In. (16 or 32 mm) on each side of wall for a 1 or 2 hr rated wall, respectively. Wall to be constructed as specified in the Individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that a max 3/4 In. (19 mm) gap shall be maintained between the bottom of gypsum board and top of concrete floor. The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.
3. Fill, Void or Cavity Material* Sealant — Max separation between top of floor and bottom of gypsum board is 3/4 In. (19 mm). For 1 and 2 hr rated wall assemblies, min 5/8 In. or 1-1/4 In. (16 or 1-1/4 mm) thickness of fill material, respectively. Installed on each side of the wall between the bottom of the gypsum board and the top of the concrete floor, flush with each surface of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S Elastomeric Firestop Sealant, CP606 Flexible Firestop Sealant, CFS-S SIL GG, FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

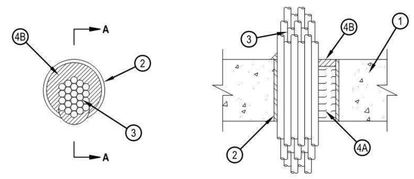
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January 26, 2015

D1 **UL DESIGN NO. BW-S-0001**
SCALE: NTS

System No. C-AJ-3181

CAJ 3181

F Rating — 3 Hr
T Rating — 0 Hr



SECTION A-A

1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600 2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 4 in. See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.
2. Steel Sleeve — (Optional) - Nom 4 in. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel sleeve, cast or grouted into floor or wall assembly, flush with both surfaces of floor or wall assembly.
3. Cables — Aggregate cross-sectional area of cables in sleeve or opening to be min 25% to max 60% of the cross-sectional area inside the sleeve or opening. The annular space between cables and periphery of opening shall be min of 0 in. (0 mm, point contact) to max 1-7/8 in. (48 mm). Cables to be rigidly supported on both sides of floor or wall assembly. Any combination of the following types and sizes of cable may be used:
   A. Max 300 pair No. 24 AWG copper conductor telephone cables with polyvinyl chloride (PVC) insulation and jacket.
   B. Max 500 kcmil cable with polyvinyl chloride (PVC) insulation and jacket.
   C. Max 7/C No. 12 AWG copper conductor power cable with polyvinyl chloride (PVC) insulation and jacket.
   D. Max 24 fibers 1/2 in. diam fiber optic cable.
   E. Max 3/C No. 12 AWG metal-clad cable.
   F. Max 3/C with ground 2/0 AWG copper conductor SER cable with cross-linked polyethylene (XLPE) insulation and polyvinyl chloride (PVC) jacket.
   G. RG/U coaxial cable with polyethylene (PE) insulation and polyvinyl chloride (PVC) jacket having a max outside diameter of ½ in. (13 mm).
   H. Fire Resistive Cables* - Max 1-1/4 in. (32 mm) diam single conductor or multi conductor Type MI cable. A min 1/8 in. (3 mm) separation shall be maintained between MI cables and any other type of cable.
4. Firestop System — The details of the firestop system shall be as follows:
   A. Packing Material — Min. 4 in. (102 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.
   B. Fill, Void or Cavity Materials*-Caulk — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall. At the point contact location between penetrant and sleeve or concrete, a min 1/2 in. (13 mm) diam bead of fill material applied at the sleeve/cables or concrete/cables interface on the top surface of floor or both surfaces of wall.
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606 Flexible Firestop Sealant
   *Bearing the UL Classification Mark

Hilti Firestop Systems

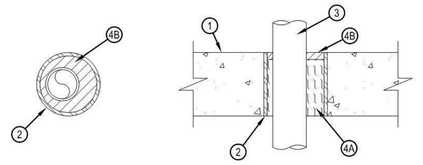
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October 15, 2008

D3 **UL DESIGN NO. C-AJ-3181**
SCALE: NTS

System No. C-AJ-2567

CAJ 2567

F Rating — 2 Hr
T Ratings — 0, 1-1/4 and 2 Hr (See Item 2)
L Rating At Ambient — Less Than 1 CFM/sq ft
L Rating At 400 F — 4 CFM/sq ft
W Rating — Class 1 (See Item 4C)



1. Floor or Wall Assembly — Min 4-1/2 In. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete floor or min 5 In. (127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Floor may also be constructed of any 6 In. thick UL Classified hollow core Precast Concrete Units. Max diam of opening is 4 In. (102 mm). See Concrete Blocks (CAZT) and Precast Concrete Units* (CFTV) categories in the Fire Resistance Directory for names of manufacturers.
2. Steel Sleeve — (Optional) Nom 4 In. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe cast or grouted into floor or wall assembly, flush with floor or wall surfaces or extend a max 3 In. (76 mm) above the floor or beyond both surfaces of the wall. The T Rating for the firestop system is 2 hr except that when the steel sleeve is provided, If the steel sleeve is installed flush with both surfaces of the floor or wall, the T Rating of the firestop system is 1-1/4 hr. If the steel sleeve extends beyond the top surface of the floor or both surfaces of the wall, the T Rating of the firestop system is 0 hr.
3. Through Penetrants — One nonmetallic pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe and sleeve (Item 2) shall be min 1/4 In. (6 mm) to max 1-3/8 In. (35 mm). When steel sleeve (Item 2) is not provided, the annular space between pipe and periphery of opening shall be min 0 In. (point contact) to max 1-5/8 In. (41 mm). Pipe to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of nonmetallic pipes may be used:
   A. Polyvinyl Chloride (PVC) Pipe — Nom. 2 In. (51 mm) diam (or smaller) Schedule 40 solid-core or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.
   B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 2 In. (51 mm) diam (or smaller) SDR17 CPVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   C. Rigid Nonmetallic Conduit* — Nom 2 In. (51 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA 70).
   D. Crosslinked Polyethylene (PEX) Tubing — Nom 2 In. (51 mm) diam (or smaller) SDR 9 PEX tubing for use in closed (process or supply) piping systems.

Hilti Firestop Systems

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January 09, 2015

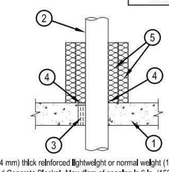
Page: 1 of 2

D5 **UL DESIGN NO. C-AJ-2567**
SCALE: NTS

System No. C-AJ-1610

CAJ 1610

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2Hr	F Rating — 2 Hr
T Ratings — 2 Hr	FT Ratings — 2 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft	FH Rating — 2 Hr
L Rating At 400 F — Less Than 1 CFM/sq ft	FTH Ratings — 2 Hr
W Rating — Class 1 (See Item 4)	L Rating At Ambient — Less Than 1 CFM/sq ft
	L Rating At 400 F — Less Than 1 CFM/sq ft



1. Floor or Wall Assembly — Min 4-1/2 In. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 6 In. (152 mm). See Concrete Blocks (CAZT) category for names of manufacturers.
2. Through Penetrant — One metallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. The annular space between the through penetrant and the periphery of opening shall be min 0 In. (point contact) to a max of 1-1/2 In. (38 mm). Through penetrant to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipe or conduit may be used:
   A. Steel Pipe — Nom 4 In. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
   B. Iron Pipe — Nom 4 In. (102 mm) diam (or smaller) cast or ductile iron pipe.
   C. Steel Conduit — Nom 4 In. (102 mm) diam (or smaller) rigid steel conduit.
3. Packing Material — Min 4 In. (102 mm) thickness of min 4 pcf (64 kg/m3) mineral wool firmly packed into opening as a permanent form. Packing material to be recessed min 1/2 In. (13 mm) from top of concrete In floor or from both ends of wall to accommodate the required thickness of fill material (Item 4).
4. Fill, Void or Cavity Material* — Sealant — Fill material applied to a min depth of 1/2 In. (13 mm) flush with top surface of floor or with both surfaces of wall. A min 1/4 In. (6 mm) bead of fill material to be applied at area of point contact.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP604 Sealant (Floors Only), CFS-S SIL GG, CFS-S SIL SL (floors only), CP606 Sealant, FS-ONE Sealant or FS-ONE MAX Intumescent Sealant. Note:W Rating applies only when CFS-S SIL GG, CFS-S SIL SL (floors only), CP604 Sealant or FS-ONE MAX Intumescent Sealant is used.
5. Batts and Blankets* — Two layers of nom 2 In. (51 mm) thick fiberglass duct wrap, min 1 pcf (16 kg/m3). tightly wrapped around penetrant and tightly butted to the top surface of the floor or both sides of wall to extend min 12 In. (305 mm) above floor or past both sides of wall. All longitudinal seams of both layers of duct wrap are to be sealed with foil tape.
   See Batts and Blankets (BKNV) category In the Building Materials Directory for names of manufacturers. Any batts and blankets material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

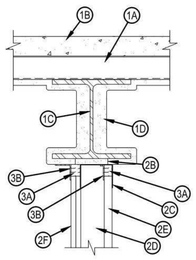
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D6 **UL DESIGN NO. C-AJ-1610**
SCALE:1 : 3

System No. HW-D-0571

HWD 0571

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Item 2)
Class II Movement Capabilities — 50% Compression and Extension	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating At Ambient — Less Than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 2)
L Rating At 400°F — Less Than 1 CFM/Lin Ft	Nominal Joint Width - 1-1/2 In.
	Class II Movement Capabilities — 50% Compression and Extension
	L Rating At Ambient — Less Than 1 CFM/Lin Ft
	L Rating At 400°F — Less Than 1 CFM/Lin Ft



Hilti Firestop Systems

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System No. HW-D-0571

HWD 0571

1. Floor Assembly — The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700, D800 or D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor And Floor Units* — Max 3 in. (76 mm) deep galv steel fluted floor units.
   B. Concrete — Min 2-1/2 in. (64 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete, as measured from the top plane of the floor units.
   C. Structural Steel Support — Steel beam, as specified in the individual D700, D800, or D900 Series Floor-Ceiling Design, used to support steel floor units. Steel beam centered over and parallel with wall assembly.
   D. Spray-Applied Fire Resistive Material* — After installation of the steel attachment clips (Item 2B), steel floor units and structural steel support to be sprayed with the min thickness of material specified in the individual D700, D800, or D900 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. Additional material shall be applied to the web of the steel beam on each side of the wall. For a 1 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 13/16 in. (21 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 1-3/8 in. (35 mm).
      GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY and MK-10HB
   D1. Spray-Applied Fire Resistive Material* — After installation of the steel attachment clips (Item 2B), steel floor units and structural steel support to be sprayed with the min thickness of material specified in the individual D700, D800, or D900 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. Additional material shall be applied to the web of the steel beam on each side of the wall. For a 1 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 11/16 in. (18 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 1-1/2 in. (38 mm).
      ISOLATEK INTERNATIONAL — Type 300 or Type II

1A. Roof Assembly — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 or P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features as applicable:
   A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.
   B. Roof Insulation — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the steel roof deck.
   C. Structural Steel Support — Steel beam, as specified in the individual Roof-Ceiling Design, used to support steel roof deck. Steel beam centered over and parallel with wall assembly.
   D. Spray-Applied Fire Resistive Material* — After installation of the steel attachment clips (Item 2B), steel roof deck (P700 series) and structural steel support to be sprayed with the min thickness of material specified in the individual Roof-Ceiling Design. In addition, the flutes of the steel deck are to be filled with material across the entire top flange of the steel beam. Additional material shall be applied to the web of the steel beam on each side of the wall. For a 1 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 13/16 in. (21 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 1-3/8 in. (35 mm).
      GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY or MK-10HB
   D1. Spray-Applied Fire Resistive Material* — After installation of the steel attachment clips (Item 2B), roof deck (P700 series) and structural steel support to be sprayed with the min thickness of material specified in the individual Roof-Ceiling Design. In addition, the flutes of the roof deck are to be filled with material across the entire top flange of the steel beam on each side of the wall. For a 1 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 11/16 in. (18 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 1-1/2 in. (38 mm).
      ISOLATEK INTERNATIONAL — Type 300 or Type II

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System No. HW-D-0571

HWD 0571

2. Shaft Wall Assembly — The 1 hr or 2 hr fire rated gypsum board/steel stud shaft wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Floor and Wall Runners — (Not Shown) - J-shaped runner, sized equal in width to steel studs (Item 2C), with unequal legs of 1 in. (25 mm) and 2 in. (51 mm), fabricated from 24 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to floor with steel fasteners located not greater than 2 in. (51 mm) from ends and not greater than 24 in. (610 mm) OC.
   B. Steel Attachment Clips — Z-shaped clips formed from min 1 in. (25 mm) wide strips of min 20 ga galv steel. Length of clips should not exceed the width (thickness) of the wall. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the bottom flange of the steel beam with 2 in. (51 mm) long upper and lower legs. Height of clips to be equal to the required thickness of spray-applied fireproofing material (Item 1D or 1D1) on the bottom flange of the steel beam. Legs of clips fastened to bottom of beam (prior to application of spray-applied fire-resistive materials) and top of ceiling runner with steel fasteners or welds. Clips spaced max 24 in. (610 mm) OC.
   C. Ceiling Runner — Ceiling runner of wall assembly shall consist of galv steel channel sized to accommodate steel studs (Item 2D), Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner to be positioned beneath and parallel with bottom flange of steel beam. Ceiling runner secured to steel attachment clips (Item 2B) with steel fasteners or welds spaced max 24 in. (610 mm) OC.
   C1. Light Gauge Framing* - Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2B, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2C). Flange height of slotted ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Slotted ceiling runner to be positioned beneath and parallel with bottom flange of steel beam. Slotted ceiling runner secured to steel attachment clips (Item 2B) with steel fasteners or welds spaced max 24 in. (610 mm) OC.
      BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK, SLPTRK325
      CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
      CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H
      MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
      METAL-LITE INC — The System
      RAM SALES L L C — RAM Slotted Track
      SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track
      TELLING INDUSTRIES L L C — True-Action Deflection Track
   C2. Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2C through 2C1, slotted ceiling runner to consist of galv steel channel, sized to accommodate steel studs (Item 2D). Flange height of slotted ceiling runner shall be 3-1/4 in. (83 mm) with 2 in. (51 mm) deep slots. Slotted ceiling runner to be positioned beneath and parallel with bottom flange of steel beam. Slotted ceiling runner secured to steel attachment clips (Item 2B) with steel fasteners or welds spaced max 24 in. (610 mm) OC.
      SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track-Type SDLT
   D. Steel Studs — C-H shaped studs, min 4 in. (102 mm) wide by 1-1/2 in. (38 mm) deep, fabricated from 25 MSG galv steel, cut to lengths 3/4 to 1 in. (19 to 25 mm) less than floor to ceiling height beneath coating on steel beam bottom flange and spaced 24 in. (610 mm) OC. When slotted ceiling runner specified in Item 2C2 is used the C-H-shaped studs cut in lengths 3/4 to 1-3/4 in. (19 to 44 mm) less than floor to ceiling height beneath coating on steel beam bottom flange and spaced 24 in. (610 mm) OC.
   E. Gypsum Board* — Nom 1 in. (25 mm) thick gypsum board liner panels. Panels cut 1-12 in. (38 mm) less in length than floor to ceiling height beneath coating on steel beam bottom flange. Vertical edges inserted in H-shaped section of C-H studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 in. (41 mm) long Type S steel screws spaced max 12 in. (305 mm) OC.
   F. Gypsum Board* — Nom 5/8 in. (16 mm) thick gypsum board applied vertically in one or two layers for 1 hr and 2 hr fire rated assemblies, respectively. Panels cut 1-1/2 in. (38 mm) less in length than floor to ceiling height beneath coating on steel beam bottom flange. The screws attaching the gypsum board layers to the C-H studs shall be located 1 to 1-1/2 in. (25 to 38 mm) below the bottom of the ceiling runner or slotted ceiling track. No gypsum board attachment screws are to penetrate the ceiling runner or slotted ceiling track. The hourly ratings of the joint system are equal to the hourly fire rating of the wall.

Hilti Firestop Systems

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System No. HW-D-0571

HWD 0571

3. Joint System — Max separation between coating on steel beam bottom flange and top of gypsum board (at the time of installation of the joint system) is 1 1/2 in. (38 mm). The joint system is designed to accommodate a max 50 percent compression or extension from its installed width. The joint system consists of the following:
   A. Forming Material* — Min 4 pcf (64 kg/m3) density mineral wool batt insulation cut to a thickness twice larger than the distance between the top of the gypsum board and the bottom of the coating on the steel beam bottom flange. Material compressed 50 percent and installed within ceiling runner above top of liner panel flush with the inside surface of the panel. Material compressed and installed on finished side of the wall between the top of the gypsum board and the bottom of the coating on the steel beam bottom flange, flush with the surface of the wall.
      INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing
      JOHNS MANVILLE — Safing
      ROCK WOOL MANUFACTURING CO — Delta Board
      ROCKWOOL — SAFE
      THERMAFIBER INC — Type SAF
   A1. Forming Material* - Strips — As an alternate to Item 2A, the strips are stacked to a height twice larger than the distance between the top of the gypsum board and the bottom of the coating on the steel beam bottom flange. Strips compressed 50 percent and installed within ceiling runner above top of liner panel flush with the inside surface of the panel. Strips compressed and installed on finished side of the wall between the top of the gypsum board and the bottom of the coating on the steel beam bottom flange, flush with the surface of the wall.
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips
   B. Fill, Void or Cavity Material* — Min 1/16 in. (1.6 mm) dry thickness (1/8 in. or 3.2 mm wet thickness) of fill material sprayed or troweled within stud cavity and on finished side of the shaft wall to completely cover mineral wool forming material. Fill material to overlap a min of 1/2 in. (13 mm) onto gypsum board and ceiling runner within stud cavity. Fill material to overlap a min of 1/2 in. (13 mm) onto gypsum board and min 2 in. (51 mm) onto spray-applied fire resistive material (Item 1C) on the finished side of the wall.
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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A1 **UL DESIGN NO. HW-D-0571**
SCALE: NTS

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
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REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE RE QUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

UL DETAILS

SHEET NUMBER

AE533

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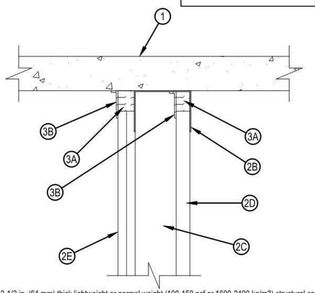
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System No. HW-D-0572

HWD 0572

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Item 2)
Class II Movement Capabilities — 50% Compression and Extension	FH Ratings — 1 and 2 Hr (See Item 2)
	FTH Ratings — 1 and 2 Hr (See Item 2)
	Nominal Joint Width - 1-1/2 In.
	Class II Movement Capabilities — 50% Compression and Extension



1. Floor Assembly — Min 2-1/2 in. (64 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also consist of any min 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.
   See Precast Concrete Units (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Shaft Wall Assembly — The 1 hr or 2 hr fire rated gypsum board/steel stud shaft wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Floor and Wall Runners — (Not Shown) - J-shaped runner, sized equal in width to steel studs (Item 2C),with unequal legs of 1 in. (25 mm) and 2 in. (51 mm), fabricated from 24 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to floor with steel fasteners located not greater than 2 in. (51 mm) from ends and not greater than 24 in. (610 mm) OC.
   B. Ceiling Runner — Ceiling runner shall consist of galv steel channel sized to accommodate steel studs (Item 2C). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner secured with steel fasteners located not more than 2 in. (51 mm) from ends and spaced not greater than 24 in. (610 mm) OC.

System No. HW-D-0572

HWD 0572

B1. Light Gauge Framing* - Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2B, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2C). Flange height of slotted ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Slotted ceiling runner secured with steel fasteners located not more than 2 in. (51 mm) from ends and spaced max 24 in. (610 mm) OC.
BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
METAL-LITE INC — The System
SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track
TELLING INDUSTRIES L L C — True-Action Deflection Track
C. Steel Studs — C-H shaped studs, min 4 in. (102 mm) wide by 1-1/2 in. (38 mm) deep, fabricated from 25 MSG galv steel, cut to lengths 3/4 to 1 in. (19 to 25 mm) less than floor to ceiling height and spaced 24 in. (610 mm) OC.
D. Gypsum Board* — Nom 1 in. (25 mm) thick gypsum board liner panels. Panels cut 1-1/2 in. (38 mm) less in length than floor to ceiling height. Vertical edges inserted in H-shaped section of C-H studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 in. (41 mm) long Type S steel screws spaced max 12 in. (305 mm) OC.
E. Gypsum Board* — Nom 5/8 in. (16 mm) thick gypsum board applied vertically in one or two layers for 1 hr and 2 hr fire rated assemblies, respectively. Panels cut 1-1/2 in. (38 mm) less in length than floor to ceiling height. The screws attaching the gypsum board layers to the C-H studs shall be located 1 to 1-1/2 in. (25 to 38 mm) below the bottom of the ceiling runner or slotted ceiling track. No gypsum board attachment screws are to penetrate the ceiling runner or slotted ceiling track.
The hourly ratings of the joint system are equal to the hourly fire rating of the wall.
3. Joint System — Max separation between bottom of floor and top of gypsum board (at the time of installation of the joint system) is 1 1/2 in. (38 mm). The joint system is designed to accommodate a max 50 percent compression or extension from its installed width. The joint system consists of the following:
   A. Forming Material* — Min 4 pcf (64 kg/m3) density mineral wool batt insulation cut to a thickness twice larger than the distance between the top of the gypsum board and the bottom of the floor. Material compressed 50 percent and installed within ceiling runner above top of liner panel flush with the inside surface of the panel. Material compressed and installed on finished side of the wall between the top of the gypsum board and the bottom of the floor, flush with the surface of the wall.
   ROCK WOOL MANUFACTURING CO — Delta Board
   ROXUL INC — SAFE
   THERMAFIBER INC — Type SAF
   A1. Forming Material* - Strips — As an alternate to Item 2A, the strips are stacked to a height twice larger than the distance between the top of the gypsum board and the bottom of the floor. Strips compressed 50 percent and installed within ceiling runner above top of liner panel flush with the inside surface of the panel. Strips compressed and installed on finished side of the wall between the top of the gypsum board and the bottom of the floor, flush with the surface of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips
   B. Fill, Void or Cavity Material* — Min 1/16 in. (1.6 mm) dry thickness (1/8 in. or 3.2 mm wet thickness) of fill material sprayed or troweled within stud cavity and on finished side of the shaft wall to completely cover mineral wool forming material. Fill material to overlap a min of 1/2 in. (13 mm) onto gypsum board and ceiling runner within stud cavity. Fill material to overlap a min of 1/2 in. (13 mm) onto gypsum board and concrete on finished side of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 672 Firestop Spray or CFS-SP WB Firestop Joint Spray

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

D1 UL DESIGN NO. HW-D-0572

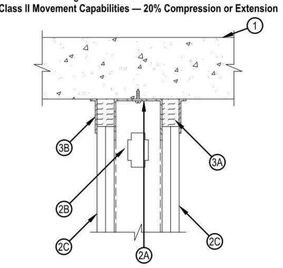
SCALE: NTS

System No. HW-D-0106

HWD 0106

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

Assembly Ratings — 1 and 2 Hr (See items 2 and 3)
Nominal Joint Width — 2 In.
L Rating At Ambient — Less Than 1 CFM/Lin Ft
L Rating At 400°F — Less Than 1 CFM/Lin Ft
Class II Movement Capabilities — 20% Compression or Extension



1. Floor Assembly — Min 4-1/2 in. (114 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.
   See Precast Concrete Units category in the Fire Resistance Directory for names of manufactures.
2. Wall Assembly — The 1 or 2 hr fire-rated gypsum board /stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced 24 in. (610 mm) OC.
   A1. Light Gauge Framing*-Slotted Ceiling Runner — (For use in applications where the nominal joint width does not exceed 1-1/2 in. or 38 mm) - As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
   BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
   CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
   CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H
   MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
   METAL-LITE INC — The System
   SCAFCO STEEL STUD MANUFACTURING CO
   TELLING INDUSTRIES L L C — True-Action Deflection Track

System No. HW-D-0106

HWD 0106

A2 . Light Gauge Framing*-Vertical Deflection Ceiling Runner — (For use in applications where the nominal joint width does not exceed 1 in. or 25 mm) - As an alternate to the ceiling runners in Items 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips provided with step bushings for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner masonry anchors or steel fasteners with steel masonry anchors spaced max 24 in. (610 mm) OC.
THE STEEL NETWORK INC — VertiTrack VTD250, VTD362, VTD400, VTD600 and VTD800
A3. Light Gauge Framing*- Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
OLMAR SUPPLY INC — Type SCR
B. Studs — Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. . When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC .
C. Gypsum Board* — Gypsum board installed to a min total thickness of 5/8 or 1-1/4 in. (16 or 32 mm) on each side of wall, for 1 or 2 hr fire resistance rated walls, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that a nominal 2 in. (51 mm) gap shall be maintained between the top of the gypsum board and the bottom of concrete floor. The screws attaching the gypsum board to the studs at the top of the first layer shall be located 4 in. (102 mm) from the floor assembly. The screws attaching the second layer to the steel studs shall be located 3-1/2 in. (89 mm) from the floor assembly. The hourly fire rating of the joint system is dependent on the hourly rating of the wall.
3. Joint System — Max width of joint (at time of installation of joint system) is 2 in. (51 mm). The joint system is designed to accommodate a max 20 percent compression or extension from its installed width. The joint system shall consist of the following:
   A. Forming Material * — Nom 5/8 or 1-1/4 in. (16 or 32 mm) thick strips of min 4 pcf (64 kg/m3) mineral wool batt insulation, for 1 and 2 Hr rated assemblies, respectively, cut to width, compressed 33 percent in width and firmly packed into gap between top of the gypsum board and bottom of the floor assembly, flush with both surfaces of the wall. Adjoining lengths of batt to be tightly butted with butted seams spaced min 48 in. (1.2 m) apart along the length of the joint.
   ROCK WOOL MANUFACTURING CO — Delta Board
   ROXUL INC — SAFE
   THERMAFIBER INC — Type SAF
   A1. Forming Material* - Strips — (Optional) - Nom 5/8 in. (16 mm) and 1-1/4 in. (32 mm) wide precut mineral wool strips for 1 and 2 hr rated assemblies, respectively. The strips are cut to thickness, compressed 50 percent in thickness and firmly packed into the gap between the top of the gypsum board and bottom of the floor assembly, flush with both surfaces of the wall. Adjoining lengths of strips to be tightly butted with butted seams spaced min 48 in. (1.2 m) apart along the length of the joint.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips
   B. Fill, Void or Cavity Material* — Min 1/16 in. (1.6 mm) dry thickness (min 1/8 in.or 3.2 mm wet thickness) of fill material sprayed or troweled on each side of the wall to completely cover mineral wool forming material and to overlap min 1/2 in. (13 mm) onto the gypsum board and concrete floor assembly.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP672 Firestop Spray or CFS-SP WB Firestop Joint Spray

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

D4 UL DESIGN NO. HW-D-0106

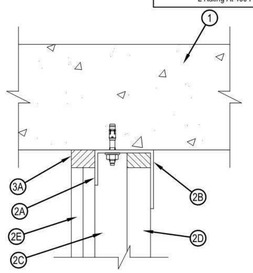
SCALE: NTS

System No. HW-D-0342

HWD 0342

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

ANSI/UL2079	CAN/ULC S115
Assembly Rating — 2 Hr	F Rating — 2 Hr
Nominal Joint Width - 1 In.	FT Rating — 2 Hr
Class II Movement Capabilities — 8% Compression and Extension	FH Rating — 2 Hr
L Rating At Ambient — Less Than 1 CFM/lin ft	FTH Rating — 2 Hr
L Rating At 400 F — Less Than 1 CFM/lin ft	Nominal Joint Width - 1 In.
	Class II Movement Capabilities — 8% Compression and Extension
	L Rating At Ambient — Less Than 1 CFM/lin ft
	L Rating At 400 F — Less Than 1 CFM/lin ft



1. Floor Assembly — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete.
2. Shaft Wall Assembly — The 2 hr fire-rated gypsum board /steel stud shaft wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Floor and Ceiling Runners — J-shaped runner, 2-1/2 in. (64 mm) wide with unequal legs of min 1-1/4 in. (32 mm) and 2 in. (51 mm), fabricated from min 24 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. (51 mm) from ends and not greater than 24 in. (610 mm) OC.
   B. Light Gauge Framing* - Slotted Ceiling Track — (Optional) Slotted ceiling track shall consist of galv steel channels with slotted flanges. Slotted ceiling track sized to accommodate steel "C-H" studs (Items 2C). Attached to concrete at ceiling with steel fasteners spaced max 24 in. (610 mm) OC.
   CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
   BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
   MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
   B1. Light Gauge Framing Members* — (Optional Not Shown) - As an option, the steel studs (Item 2C) may incorporate vertical deflection clips for attachment to the ceiling runner (Item 2A) in accordance with the manufacturer's instructions.
   THE STEEL NETWORK INC — VertiClip SLD 150.
   C. Steel Studs — C-H-shaped studs, 2-1/2 in. (64 mm) wide by 1-1/2 in. (38 mm) deep, fabricated from min 25 MSG galv steel, cut to lengths 3/8 to 1/2 in. (10 to 13 mm) less than floor to ceiling height and spaced 24 in. (610 mm) OC. Studs nest in floor runner at bottom and J runner or slotted ceiling track at top. After installation of gypsum board liner panels (Item 2D), studs secured to flange of floor runner on finished side of wall only with No. 6 by 1/2 in. (13 mm) long self-drilling, self-tapping steel screws. Studs secured to flange of slotted ceiling track on finished side of wall only with No. 8 by 1/2 in. (13 mm) long self-drilling, self-tapping wafer head steel screws at slot midheight.
   D. Gypsum Board* — 1 in. (25 mm) thick by 24 in. (610 mm) wide gypsum board liner panels as specified in the individual U400 or V400-Series design. Panels cut 1 in. (25 mm) less in length than floor to ceiling height. Vertical edges inserted in "H"-shaped section of "C-H" studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 in. (41 mm) long Type S steel screws spaced max 12 in. (305 mm) OC.
   E. Gypsum Board* — Gypsum board sheets, 1/2 or 5/8 in. (13 or 16 mm) thick, applied vertically or horizontally in two layers on finished side of wall as specified in the individual U400 or V400-Series design. A max 1 in. (25 mm) gap shall be maintained between the top of the gypsum board and the bottom surface of the concrete floor. The screws attaching the gypsum board layers to the C-H studs shall be located 1 in. (25 mm) below the bottom of the J-runner or slotted ceiling track. No gypsum board attachment screws are to penetrate the ceiling J-runner and slotted ceiling track.
3. Joint System — Max separation between top of liner panel (Item 2D) and between top of gypsum board sheets (Item 2E) at time of installation of joint system is 1 in. (25 mm). The joint system is designed to accommodate a maximum 8 percent compression and extension from its installed width. The joint system consists of the following:
   A. Fill, Void or Cavity Material* - Sealant — Min 1 in. (25 mm) depth of sealant to be installed to fill linear gap between top of gypsum board liner panel (Item 2D) and top inside surface of ceiling J-runner or slotted ceiling track prior to installation of gypsum board (ItemD2E) on finished side of wall. Min 1 in. (25 mm) depth of sealant to be installed to fill linear gap between top of gypsum board sheets (Item 2E) and bottom of concrete floor.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606
*Bearing the UL Classification Mark

System No. HW-D-0342

HWD 0342

A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width Ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced 24 in. (610 mm) OC.
A1. Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
CLARKDIETRICH BUILDING SYSTEMS — Types SLT, SLT-H
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
METAL-LITE INC — The System
RAM SALES L L C — RAM Slotted Track
SCAFCO STEEL STUD MANUFACTURING CO
TELLING INDUSTRIES L L C — True-Action Deflection Track
A2. Light Gauge Framing* — Vertical Deflection Ceiling Runner — As an alternate to the ceiling runners in Items 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
THE STEEL NETWORK INC — VertiTrack VTD250, VTD362, VTD400, VTD600 and VTD800
A3. Light Gauge Framing* — Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
OLMAR SUPPLY INC — Type SCR
A4. Light Gauge Framing — Tab Track Ceiling Runner — As an alternate to the ceiling runner in Item 2A, tabbed ceiling runner to consist of a U-shaped galv steel channel with legs with a series of 1 in (26mm) long slits starting from the open end of the track leg extending vertically up the leg. Ceiling runner secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC.
CALIFORNIA EXPANDED METAL PRODUCTS CO — TAB Track
B. Studs — Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.
C. Gypsum Board* — Gypsum board installed to a min total thickness 5/8 or 1-1/4 in. (16 or 32 mm) on each side of wall, for 1 or 2 hr fire resistance rated walls, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that a max 3/4 in. (19 mm) gap shall be maintained between the top of gypsum board and bottom of concrete floor. The screws attaching the gypsum board to the studs at the top of the first layer shall be located 4 in. (102 mm) from the steel floor unit valleys. The screws attaching the second layer to the steel studs shall be installed into the studs 3-1/2 in. (89 mm) below the valleys of the steel floor units. The hourly fire rating of the joint system is dependent on the hourly ratings of the walls.
3. Fill, Void or Cavity Material — Sealant — Max separation between the bottom of floor and top of wall is 3/4 in. (19 mm). The joint system is designed to accommodate a max 33 percent compression or extension from its installed width. Fill material installed on each side of wall between the top of the gypsum board and the bottom of the concrete floor. Min 5/8 in. (16 mm) thickness plus a 1/4 in. (6 mm) crown required for 1 hr fire rated system. Min 1-1/4 in. (32 mm) thickness installed flush with surface of wall required for 2 Hr fire rated system.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S Elastomeric Firestop Sealant or CFS-S SIL GG Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

A1 UL DESIGN NO. HW-D-0342

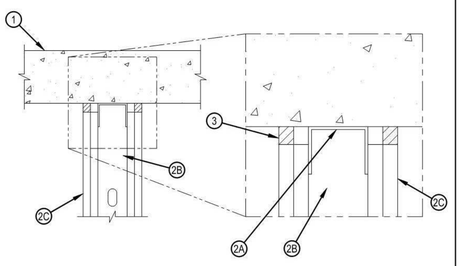
SCALE:1 : 3

System No. HW-D-0082

HWD 0082

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

ANSI/UL2079	CAN/ULC S115
Assembly Rating — 1 and 2 Hr (See Items 2 and 3)	F Rating — 1 and 2 Hr (See Items 2 and 3)
Nominal Joint Width - 3/4 In.	FT Rating — 1 and 2 Hr (See Items 2 and 3)
Class II Movement Capabilities - 33% Compression or Extension	FH Rating — 1 and 2 Hr (See Items 2 and 3)
	FTH Rating — 1 and 2 Hr (See Items 2 and 3)
	Nominal Joint Width - 3/4 In.
	Class II Movement Capabilities - 33% Compression or Extension



1. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete.
2. Wall Assembly — The 1 or 2 h fire-rated gypsum board /steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

System No. HW-D-0082

HWD 0082

A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width Ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced 24 in. (610 mm) OC.
A1. Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
CLARKDIETRICH BUILDING SYSTEMS — Types SLT, SLT-H
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
METAL-LITE INC — The System
RAM SALES L L C — RAM Slotted Track
SCAFCO STEEL STUD MANUFACTURING CO
TELLING INDUSTRIES L L C — True-Action Deflection Track
A2. Light Gauge Framing* — Vertical Deflection Ceiling Runner — As an alternate to the ceiling runners in Items 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
THE STEEL NETWORK INC — VertiTrack VTD250, VTD362, VTD400, VTD600 and VTD800
A3. Light Gauge Framing* — Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
OLMAR SUPPLY INC — Type SCR
A4. Light Gauge Framing — Tab Track Ceiling Runner — As an alternate to the ceiling runner in Item 2A, tabbed ceiling runner to consist of a U-shaped galv steel channel with legs with a series of 1 in (26mm) long slits starting from the open end of the track leg extending vertically up the leg. Ceiling runner secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC.
CALIFORNIA EXPANDED METAL PRODUCTS CO — TAB Track
B. Studs — Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.
C. Gypsum Board* — Gypsum board installed to a min total thickness 5/8 or 1-1/4 in. (16 or 32 mm) on each side of wall, for 1 or 2 hr fire resistance rated walls, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that a max 3/4 in. (19 mm) gap shall be maintained between the top of gypsum board and bottom of concrete floor. The screws attaching the gypsum board to the studs at the top of the first layer shall be located 4 in. (102 mm) from the steel floor unit valleys. The screws attaching the second layer to the steel studs shall be installed into the studs 3-1/2 in. (89 mm) below the valleys of the steel floor units. The hourly fire rating of the joint system is dependent on the hourly ratings of the walls.
3. Fill, Void or Cavity Material — Sealant — Max separation between the bottom of floor and top of wall is 3/4 in. (19 mm). The joint system is designed to accommodate a max 33 percent compression or extension from its installed width. Fill material installed on each side of wall between the top of the gypsum board and the bottom of the concrete floor. Min 5/8 in. (16 mm) thickness plus a 1/4 in. (6 mm) crown required for 1 hr fire rated system. Min 1-1/4 in. (32 mm) thickness installed flush with surface of wall required for 2 Hr fire rated system.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S Elastomeric Firestop Sealant or CFS-S SIL GG Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

A3 UL DESIGN NO. HW-D-0082

SCALE: NTS

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

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APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

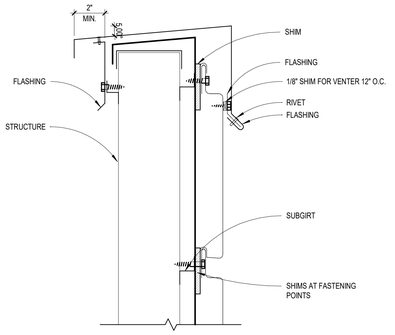
UL DETAILS

SHEET NUMBER

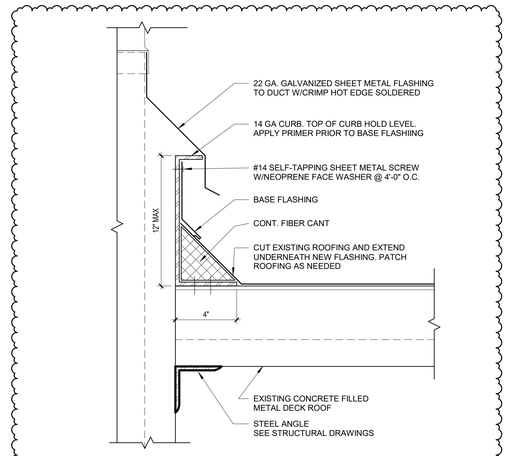
AE534

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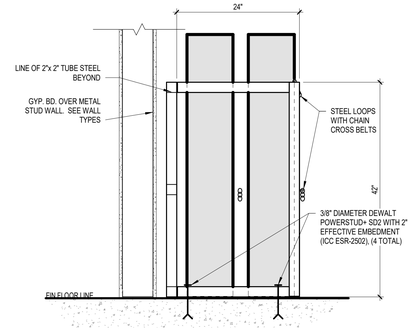


E1 ROOF SCREEN HEAD
SCALE: 3" = 1'-0"



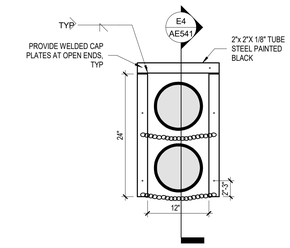
E3 DUCT PENETRATION CURB DETAIL
SCALE: 3" = 1'-0"

BC1



A-A - SECTION

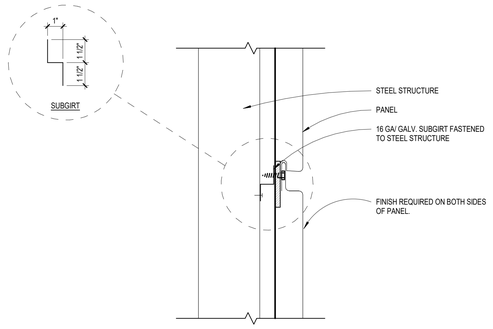
E4 CYLINDER ANCHORAGE DETAIL1 - SECTION
SCALE: 1" = 1'-0"



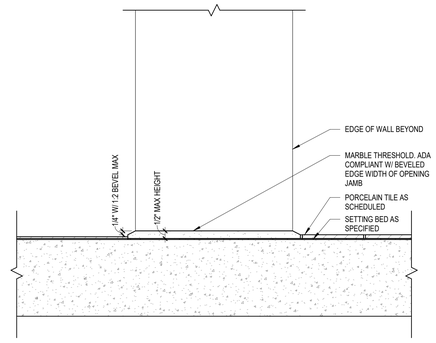
PLAN

NOTES:
1. PREFABRICATE ALL METALS WITH TUBE STEEL ASTM 500 GRADE B, GALVANIZED, TYP
2. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION
3. GRIND SMOOTH ALL EDGES, TYP
4. PRIME AND PAINT ALL METAL SURFACES, TYP

E6 CYLINDER ANCHORAGE DETAIL
SCALE: 1" = 1'-0"

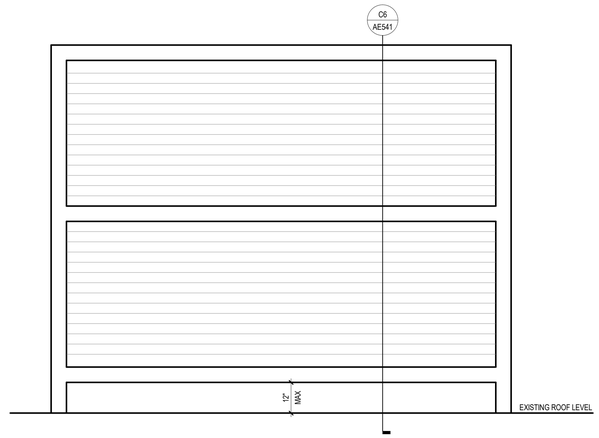


C1 ROOF SCREEN JOINT
SCALE: 3" = 1'-0"

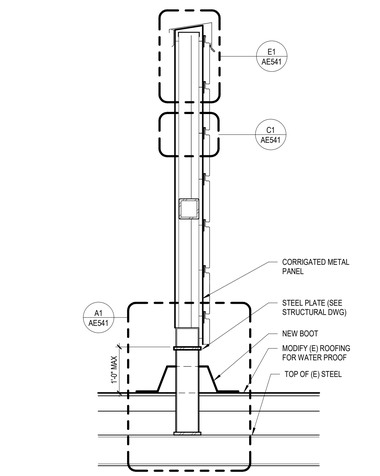


C3 DETAIL SECTION - SHOWER FLOOR TRANSITION
SCALE: 3" = 1'-0"

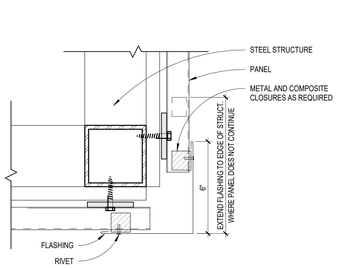
BC1



C4 SCREEN WALL - ELEVATION
SCALE: NTS

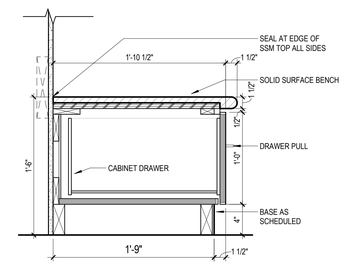


C6 SCREEN WALL - SECTION
SCALE: NTS



A1 ROOF SCREEN SILL
SCALE: 3" = 1'-0"

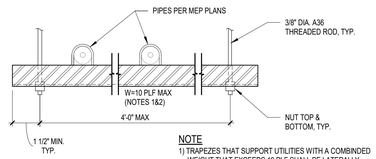
B3 ROOF SCREEN OUTSIDE CORNER
SCALE: 3" = 1'-0"



A3 BENCH_IMAGING
SCALE: 1 1/2" = 1'-0"

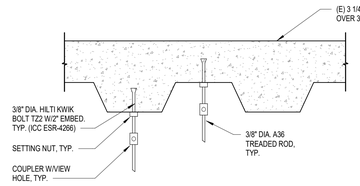


WALL MOUNTED UTILITY SUPPORT

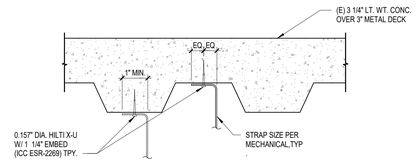


NOTE
1) TRAPEZES THAT SUPPORT UTILITIES WITH A COMBINDED WEIGHT THAT EXCEEDS 10 PLF SHALL BE LATERALLY BRACED PER OPM-0043 AS A DEFERRED APPROVAL
2) SPACING OF TRAPEZE SUPPORTS PER MEP DRAWINGS

TRAPEZE SUPPORT DETAIL

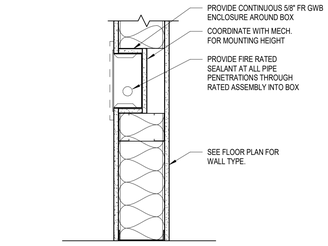


THREDED ROD ATTACHMENT

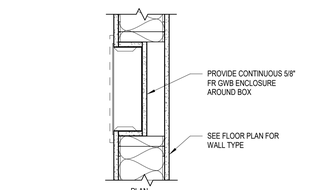


STRAP ATTACHMENT

A4 TYPICAL UTILITY SUPPORT DETAILS
SCALE: NTS



SECTION



PLAN

BC2

A6 RECESSED IN FIRE RATED WALL AT MEDGAS ZONE VALVE BOX & FIRE EXTINGUISHER CABINET
SCALE: 1 1/2" = 1'-0"

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEINZ C-27299 REN. 7/31/25 STATE OF CALIFORNIA

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CONSULTANT STAMP

KEY PLAN

REVISIONS

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1	PLAN CHECK	10/10/2023
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BC2	BACK CHECK 02	07/12/2024

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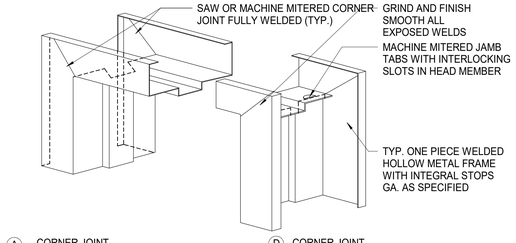
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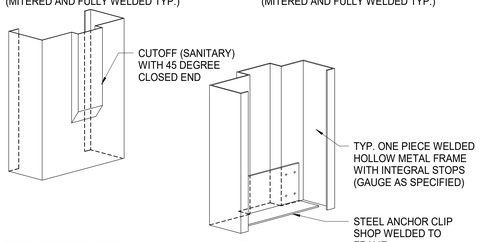
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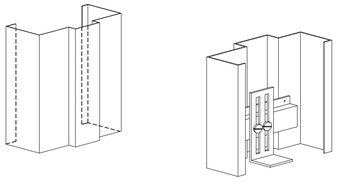
A CORNER JOINT (MITERED AND FULLY WELDED TYP.)

D CORNER JOINT (MITERED AND FULLY WELDED TYP.)



B CUTOFF SANITARY STOP (WHERE SCHEDULED)

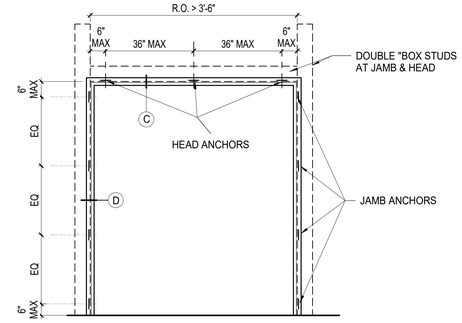
E STANDARD FLOOR ANCHOR (TYPICAL, UON)



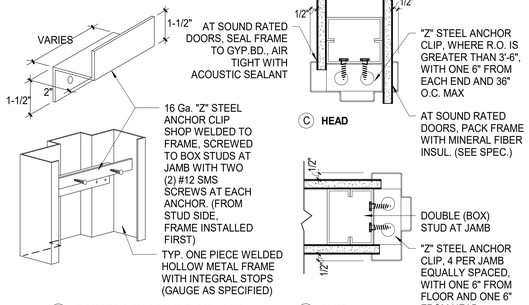
C STANDARD STOP (TYPICAL, UON)

F ADJUSTABLE FLOOR ANCHOR (TYPICAL AT FLOORS WITH SETTING BED)

D1 HOLLOW METAL FRAMES
SCALE: 3" = 1'-0"



A FRAME ELEVATIONTYPICAL - UNO

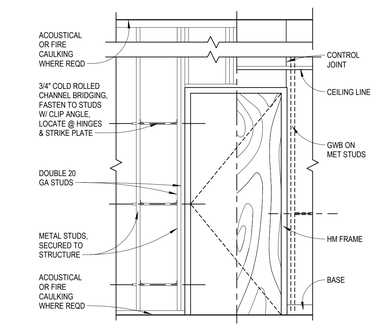


B ISOMETRIC DIAGRAMTYPICAL - UNO

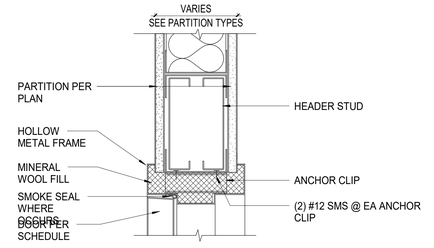
C HEAD

D JAMB

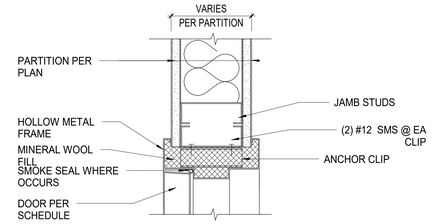
D2 FRAME ATTACHMENT
SCALE: 3" = 1'-0"



F4 TYPICAL DOOR FRAMING
SCALE: 1 1/2" = 1'-0"

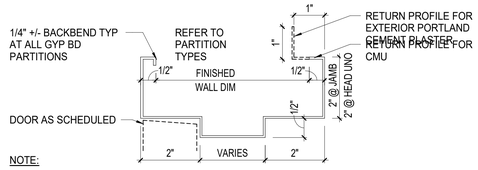


F5 TYPICAL INTERIOR DOOR HEAD
SCALE: 3" = 1'-0"



HEAD SIMILAR

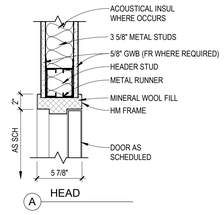
D5 TYP. INT. DOOR JAMB
SCALE: 3" = 1'-0"



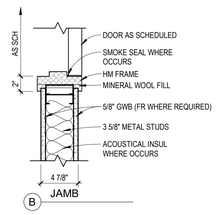
NOTE:

1. ALL FRAMES ARE WELDED UNLESS NOTED OTHERWISE
2. EXTEND STOPS TO FLOOR WHERE WEATHER STRIPPING, AUTOMATIC DOOR BOTTOMS
3. CLOSE BOTTOM OF STOP WELD & GRIND SMOOTH

C6 TYP. HM FRAME PROFILE
SCALE:1" = N.T.S.

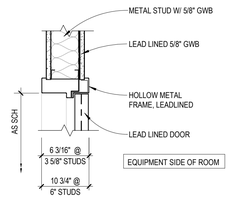


A HEAD

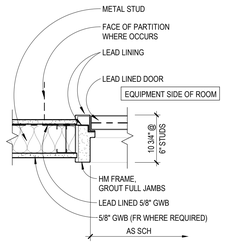


B JAMB

B1 HM DOOR FRAME IN METAL STUD
SCALE: 1 1/2" = 1'-0"

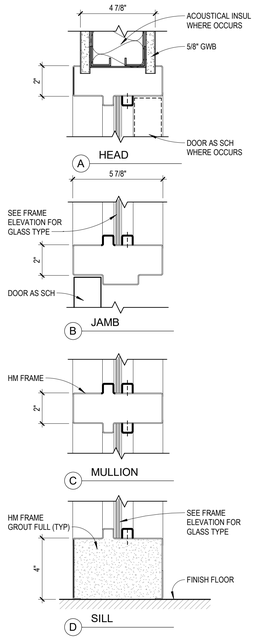


A HEAD

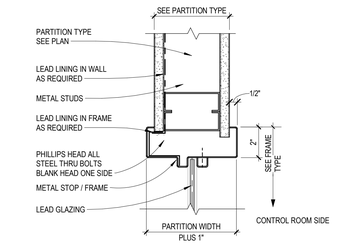


B JAMB

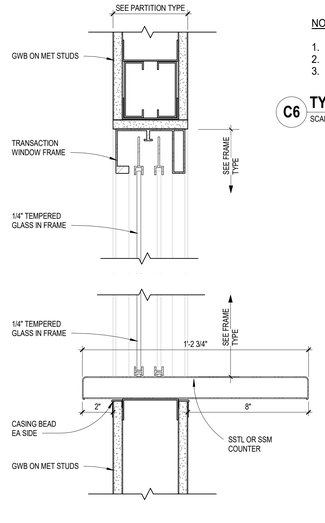
B2 HM FRAME DOOR DETAIL - LEADLINED
SCALE: 1 1/2" = 1'-0"



B3 DOOR AND BORROWED LIGHT DETAILS
SCALE: 3" = 1'-0"



C4 LEAD-LINED WDW FRAME JAMB/HEAD/SILL
SCALE: 3" = 1'-0"



B5 TRANSACTION WINDOW DETAIL
SCALE: 3" = 1'-0"

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

STEPHEN A. HEATH — LICENSED ARCHITECT — C-27299 — REN. 7/31/25 — STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

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Allen Cheng

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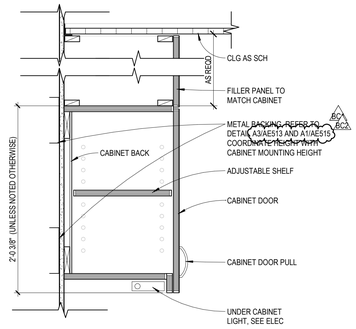
DETAILS - DOOR AND WINDOW

SHEET NUMBER

AE551

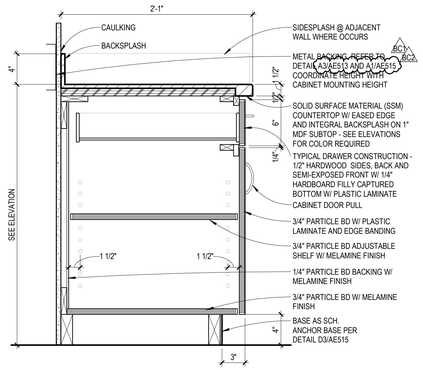
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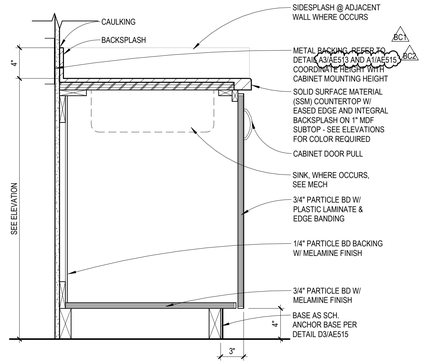
E1 UPPER CABINET W/ BULKHEAD

SCALE: 1 1/2" = 1'-0"



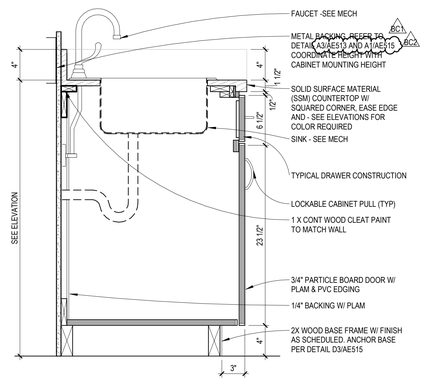
E2 TYPICAL BASE CABINET W/ ONE DRAWER1

SCALE: 1 1/2" = 1'-0"



E3 TYPICAL BASE CABINET W/ SINK1

SCALE: 1 1/2" = 1'-0"

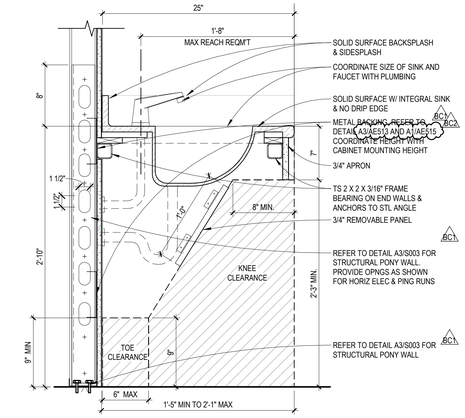


E5 BASE CABINET W/ SINK W/SSM COUNTER

SCALE: 1 1/2" = 1'-0"

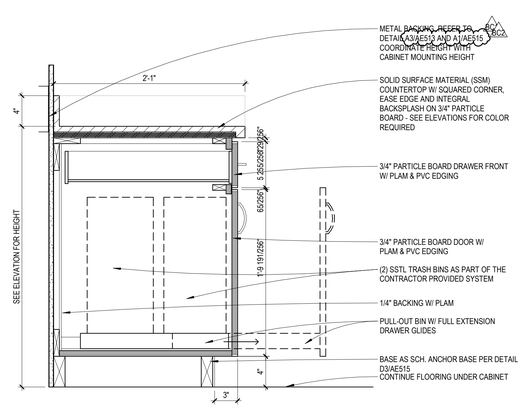
CASEWORK GENERAL NOTES

1. ALL CABINETWORK IS AWI PREMIUM GRADE.
2. ALL CABINETWORK IS PLASTIC LAMINATE (WOOD VENEER) UNLESS OTHERWISE NOTED.
3. ALL KNEE SPACE MILLWORK IS TO BE SUPPORTED BY (METAL) (PLASTIC LAMINATE-FACED PARTICLEBOARD) BRACKETS.
4. ALL UPPER CABINETS INSIDE DIMENSIONS ARE 1'-1" DEEP UNLESS OTHERWISE NOTED.
   (FYI 12" DEEP UPPER CABINETS DON'T ALLOW CABINET DOORS TO FULLY CLOSE OVER LARGE SIZE NOTEBOOKS)
5. PROVIDE FIRE TREATED WOOD (OR 20 GAGE METAL) BLOCKING IN WALLS AS REQUIRED FOR CABINET SUPPORTS AND ANCHORS.
6. ALL BACKSPLASHES ARE 4" HIGH UNLESS OTHERWISE NOTED.
7. ALL FILE DRAWERS ARE TO BE SET UP TO ACCEPT HANGING FILE FOLDERS. ALL FILE DRAWERS ARE TO HAVE FULL EXTENSION (150LB. MINIMUM) SLIDE HARDWARE.
8. ALL UPPER CABINETS ARE TO INCLUDE A 1 3/4" VALANCE COMPLETE WITH FINISH FACE VENEERS ON THE BOTTOM EDGES OF THE UPPER CABINETS IN ORDER TO SCREEN ANY UNDER CABINET LIGHTING.
9. ALL END PANELS EXPOSED TO VIEW ARE TO BE FINISHED TO MATCH FRONT FACE OF CABINETS.
10. ALL OPEN ADJUSTABLE SHELVING IS TO BE (3/4" THICK A/A PAINTED PLYWOOD) (3/4" PLASTIC LAMINATE FACED PARTICLEBOARD WITH A HARDWOOD EDGE). SHELVING IS NOT TO SPAN OVER 3'-6" WITHOUT INTERMEDIATE SUPPORT BRACING.
11. PROVIDE GROMMET INSERTS IN THE TOPS OF COUNTERTOPS OF SIZE AND AS INDICATED ON DRAWINGS.



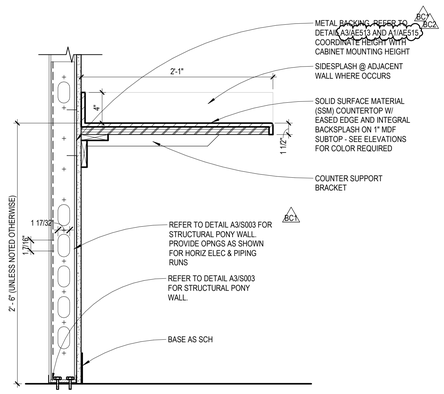
B1 ADA LAVATORY 1

SCALE: 1 1/2" = 1'-0"



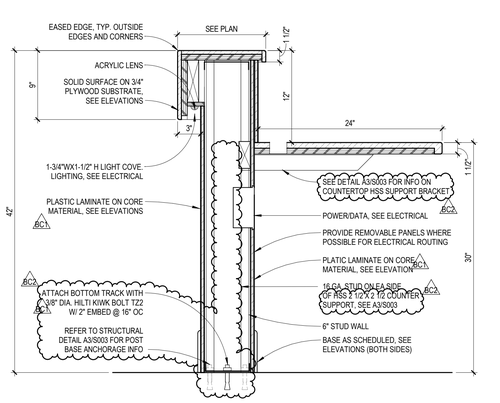
B2 BASE CABINET W/ SLIDE OUT TRASH

SCALE: 1 1/2" = 1'-0"



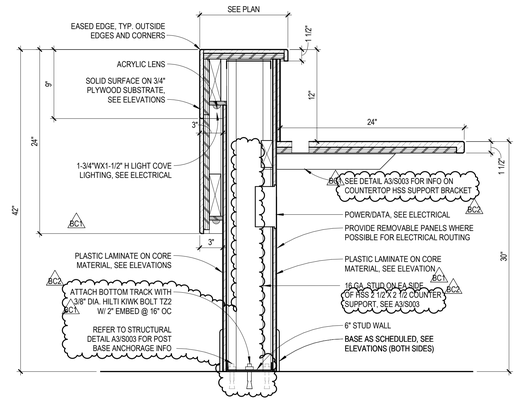
B4 TYPICAL COUNTERTOP 1

SCALE: 1 1/2" = 1'-0"



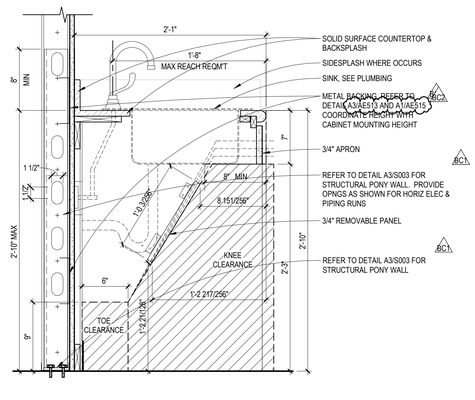
B6 NURSE STATION - TRANSACTION SURFACE 1

SCALE: 1 1/2" = 1'-0"



A1 NURSE STATION - TALL TRANSACTION SURFACE 2

SCALE: 1 1/2" = 1'-0"



A2 ADA SINK

SCALE: 1 1/2" = 1'-0"

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

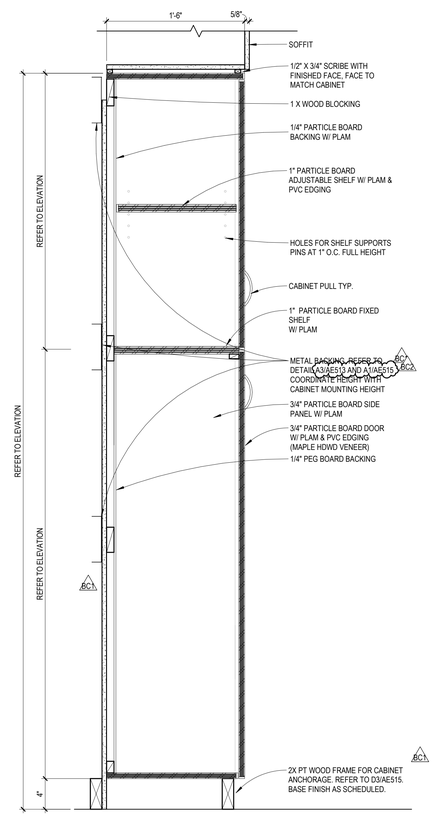
DETAILS - CASEWORK SECTIONS

SHEET NUMBER

AE561

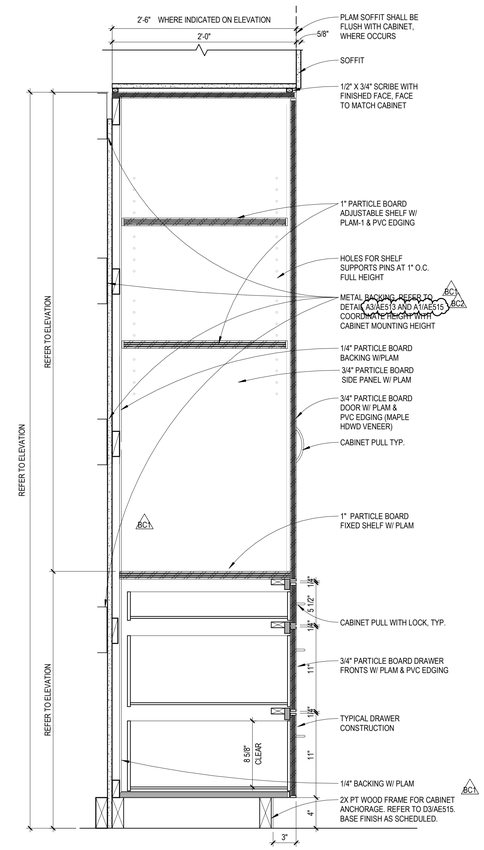
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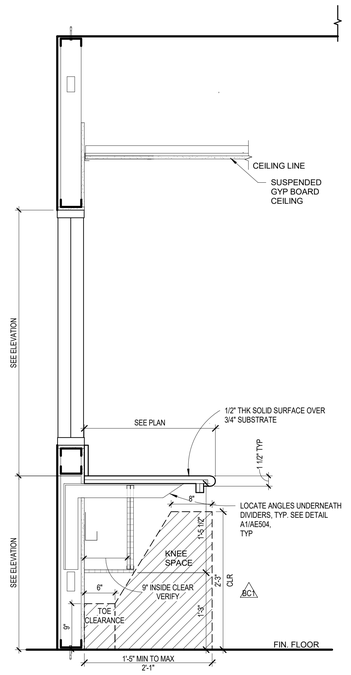
D5 TALL STORAGE CABINET W/ UPPER SHELF

SCALE: 1 1/2" = 1'-0"



D6 TALL STORAGE W/ 3 DRAWERS W/ ADJUSTABLE SHELVES

SCALE: 1 1/2" = 1'-0"



A5 CASEWORK SECTION @ CONTROL ROOM - WINDOW

SCALE: 1" = 1'-0"

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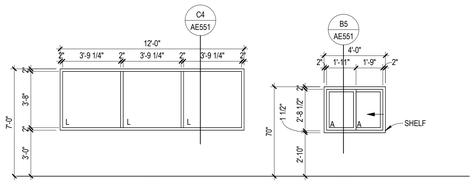
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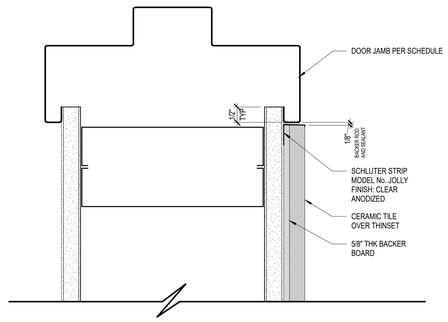
WINDOW SCHEDULE - NEW WINDOWS

WINDOW TYPE	Width	Height	FRAME TYPE	FRAME FINISH	DETAIL NO.	DETAIL SHEET	COMMENTS
W1	12'-0"	4'-0"	HM	PT-	C4	AE541	LEAD-LINED
W2	4'-0"	3'-0"	HM	PT-	B5	AE541	



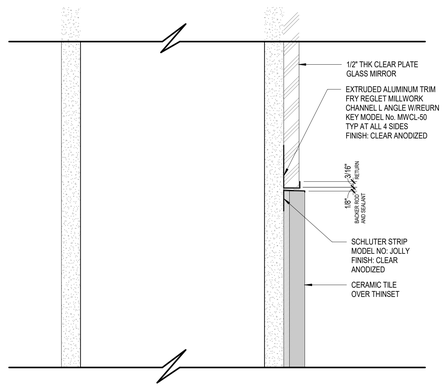
WINDOW FRAME TYPES

SCALE: 1/4" = 1'-0"



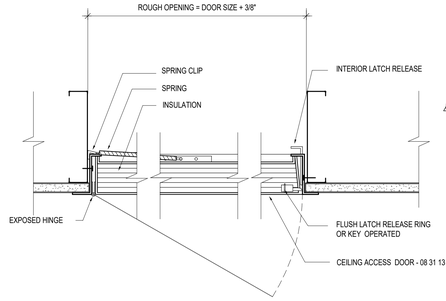
1 DETAIL AT TILE EDGE AT DOOR JAMB AND HEAD

SCALE: 6" = 1'-0"



2 DETAIL AT MIRROR AND TILE EDGE

SCALE: 6" = 1'-0"



3 CL- ACCESS DOOR

SCALE: 3" = 1'-0"

DOOR SCHEDULE

DOOR NO.	DOOR TYPE	Width	DOOR HEIGHT	HDWE SET	DOOR TYPE	DOOR MAT'L	DOOR FIN.	FRAME TYPE	FRAME MAT'L	FRAME FIN.	DET NOS	DET SHT	LABEL HOUR	REMARKS
1034		3'-6"	7'-0"	119	F	WD	P-1	1	HM	P-2			45	SMOKE DOOR
1035		3'-6"	7'-0"	119	F	WD	P-1	1	HM	P-2			45	
1037		3'-6"	7'-0"	120 BC1	F	WD	P-1	1	HM	P-2			45	
1038		3'-0"	7'-0"	119 BC1	F	WD	P-1	1	HM	P-2			20 MIN.	
1039		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2			20 MIN.	NOTE 1, 5
1040A	UN	7'-0"	7'-0"	124	F	WD	P-1	1*	HM	P-2			20 MIN.	NOTE 4, PANIC HARDWARE; EACH DOOR LEAF TO BE 20 MIN. FIRE RATED ; UNEVEN PAIR DOOR, ONE LEAF 44" CLR WIDTH; PANIC HDWR; HOLD OPENS; OPPOSIT SWING
1040B	UN	7'-0"	7'-0"	124 BC1	F	WD BC1	P-1	1*	HM	P-2			20 MIN.	UNEVEN PAIR DOORS, ONE LEAF 44" MIN CLR WIDTH; PANIC HDWR; HOLD OPENS; OPPOSIT SWING
1040C		3'-6"	7'-0"	112 BC1	F	WD	P-1	1	HM	P-2			45	
1041A		3'-0"	7'-0"	118	F	WD	P-1	1	HM	P-2			45	
1041B		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2			--	NOTE 1, 5
1041C BC1		2'-6"	7'-0"	122	F	WD BC1	P-1	1	HM	P-2			--	
1046	UN	6'-0" BC1	7'-0"	101	F/NG	HM BC1	P-1	1	HM	P-2			--	NOTE 1, 2, 3, 5 PANIC HARDWARE; ONE LEAF 44" MIN CLR WIDTH BC1
1047	UN	6'-0"	7'-0"	104	F/F	WD	P-1	1	HM	P-2			20 MIN.	NOTE 2, 3, 5, LEAD-LINED
1047A		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2			45 MIN.	LEAD-LINED
1047A.1		3'-6"	7'-0"	117	F	WD	P-1	1	HM	P-2			20 MIN.	
1047B BC1		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2			45 MIN.	LEAD-LINED
1047B.1		3'-0"	7'-0"	116.1	F	WD	P-1	1	HM	P-2			--	
1049	UN	6'-0"	7'-0"	104	F/F	WD	P-1	1	HM	P-2			20 MIN.	NOTE 2, 3, 5
1049A		3'-6"	7'-0"	116 BC1	F	WD	P-1	1	HM	P-2			45 MIN.	LEAD-LINED
1049A.1		3'-6"	7'-0"	117	F	WD	P-1	1	HM	P-2			20 MIN.	
1049B		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2			45 MIN.	LEAD-LINED
1051	UN	7'-0"	7'-0"	105	F/F	WD	P-1	1	HM	P-2			20 MIN.	NOTE 1, 2, 3, 5 LEAD-LINED
1051A BC1		3'-0"	7'-0"	114	F	WD	P-1	1	HM	P-2			--	
1051B		3'-0"	7'-0"	115 BC1	F	WD	P-1	1	HM	P-2			--	
1051C		3'-0"	7'-0"	121	F	WD	P-1	1	HM	P-2			20 MIN.	
1053	PR	7'-0"	7'-0"	103	F	HM BC1	P-1	1	HM	P-2			45 MIN. BC1	NOTE 2, 3, 5, EACH DOOR LEAF TO BE 45 MIN FIRE RATED
1054		3'-0"	7'-0"	114	F	WD	P-1	1	HM	P-2			--	
1055		3'-0"	7'-0"	114	F	WD	P-1	1	HM	P-2			--	
1057		3'-0"	7'-0"	113	F	WD	P-1	1	HM	P-2			--	
1059A	PR*	6'-2"	7'-0"	107	F/NG	WD	P-1	1	HM	P-2			--	NOTE 1, 4, 5 PANIC HARDWARE
1059B		3'-8"	7'-0"	126 BC1	NG	WD	P-1	1	HM	P-2			--	NOTE 1, 4
1059C		3'-6"	7'-0"	125	F	HM BC1	P-1	1	HM	P-2			45	
1060		9'-0" BC1	7'-6"	106	SGD	AL	ANOD	1	AL	ANOD			--	SLIDING DOOR TUBE FRAMED WITH ALAUTO CLOSE AND POSITIVE LATCH,SLIDER IN OPEN POSITION SHALL ALLOW 44" MIN. CLR. BC1
1060A BC1		3'-0"	7'-0"	123	F	WD	P-1	1	HM	P-2			45	NOTE 1, 5
1060B		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2			--	NOTE 1
1061		3'-0"	7'-0"	115	F	WD	P-1	1	HM	P-2			--	
1062		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2			45	NOTE 1, 5
1071		3'-0"	7'-0"	115	F	WD	P-1	1	HM	P-2			--	
1071C	UN	7'-0"	7'-0"	102	F/NG	WD BC1	P-1	1	HM	P-2			45 MIN.	NOTE 1, 2, 3, 5
1072A	PR	6'-0" BC1	7'-0"	101.1 BC1	NG	HM	P-1	1*	HM	P-2			20 MIN.	NOTE 1, 2, 3, 5 PANIC HARDWARE; EACH DOOR LEAF TO BE 20 MIN FIRE RATED
1072B	PR	6'-0"	7'-0"	124	NG	HM	P-1	1*	HM	P-2			20 MIN.	NOTE 4
1074		3'-0"	7'-0"	111	F	WD	P-1	1	HM	P-2			90 MIN.	
1075		3'-0"	7'-0"	110 BC1	F	WD	P-1	1	HM	P-2			90 MIN.	NOTE 1, 5, 6
1076		3'-0"	7'-0"	109 BC1	F	WD	P-1	1	HM	P-2			20 MIN.	NOTE 1, 5
1077		3'-0"	7'-0"	126	F	WD	P-1	1	HM	P-2			--	
1079		3'-0"	7'-0"	BC1	F	WD	P-1	1	HM	P-2			--	
1090	PR	8'-0"	7'-0"	124	F	WD	P-1	1*	HM	P-2			45 MIN.	

BC1 BC1

DOOR HARDWARE REMARKS

AO	AUTOMATIC OPENER
CR	CARD READER
DA	DELAYED ALARM
EH	ELECTRIC HARDWARE
FAR	FIRE ALARM RELAY
HO	HOLD OPEN
IB	INTEGRAL BLINDS
LD	ER LOCKDOWN
PR	EQUAL PAIR DOOR
UN	UNEQUAL PAIR DOOR

DOOR HARDWARE NOTES

NOTE 1 - HARD-WIRED CARD READER: HARD-WIRED CARD READER LOCATIONS REQUIRE ELECTRICAL AND/OR SECURITY TO COORDINATE, FURNISH & INSTALL COMPONENTS INCLUDING BUT NOT LIMITED TO WIRE, CONDUIT, AND CONNECTIVITY FROM CEILING THROUGH FRAME TO ALL ELECTRIFIED HARDWARE SPECIFIED IN SECTIONS 08 71 00, 08 71 13 AND/OR 08 17 13.

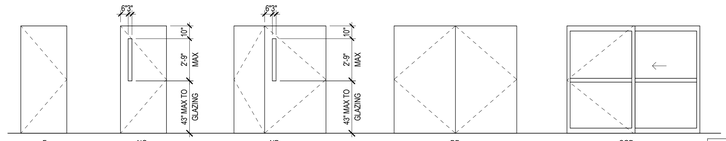
NOTE 2 - AUTOMATIC OPERATOR LOCATIONS: HARD-WIRED, ELECTRICAL 120V LOCATIONS REQUIRED. ELECTRICAL AND/OR SECURITY TO COORDINATE, FURNISH & INSTALL COMPONENTS INCLUDING BUT NOT LIMITED TO WIRE, CONDUIT, AND CONNECTIVITY FROM CEILING THROUGH FRAME TO COMPLETE ELECTRIFIED HARDWARE SPECIFIED (INCLUDING FOR SWING DOORS 6'X8" BOLLARDS WITH FULL HEIGHT PUSH-PLATE/ACTUATORS AT EACH LEAF INTERIOR AND EXTERIOR) AND AS SEEN IN SECTIONS 08 71 00, 08 71 13, 08 17 13 AND/OR IN DIVISION 08 SLIDING OR REVOLVING DOOR SPECIFICATIONS.

NOTE 3 - AUTOMATIC OPERATOR SURFACE OVERHEAD LOCATIONS REQUIRING 6" OVERHEAD CLEARANCE. SEE SPECIFIED IN SECTIONS 08 17 13.

NOTE 4 (HO) - WALL ELECTRO-MECHANICAL MAG HOLD-OPENS. FURNISH AND INSTALL FIRE ALARM DROP. IN THE EVENT OF FS/FIRE LIKE SAFETY) OR EMERGENCY OR LOSS OF BUILDING POWER. WALL MOUNTED ELECTRO-MECHANICAL HOLD-OPEN DEVICES TO HAVE POWER DROPPED (DOOR TO SELF-CLOSE AND SELF-LATCH DOORS IN AN EMERGENCY). ELECTRICAL TO FURNISH & INSTALL COMPONENTS INCLUDING BUT NOT LIMITED TO WIRE, CONDUIT, AND CONNECTIVITY. BC1

NOTE 5 - DOORS WHERE ELECTRICAL SYSTEMS THAT MONITOR OR RECORD EGRESS ACTIVITY ARE INCORPORATED, THE LOCKING SYSTEM SHALL COMPLY WITH SECTION 1010.2.11, 1010.2.12, 1010.2.13, 1010.2.14 OR 1010.2.15 OR SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.

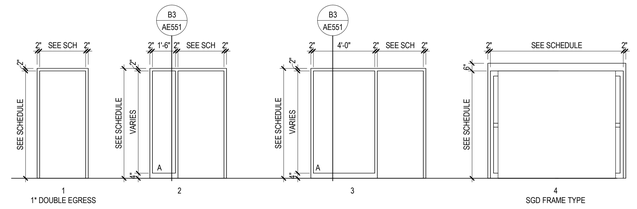
NOTE 6 - PROVIDE SIGNAGE FOR ELECTRICAL ROOM LABELED AS "ELECTRICAL ROOM" PER CODE



NOTE:
FOR VISION PANELS IN DOORS ACROSS FIRE BARRIERS AND FIRE PARTITIONS, THE FIRE-RESISTANCE-RATED GLAZING TESTED TO ASTM E119 IN ACCORDANCE WITH SECTION CCBC 716.1.2.3 SHALL BE PERMITTED, IN THE MAXIMUM SIZE TESTED

DOOR TYPES

SCALE: 1/4" = 1'-0"



DOOR FRAME TYPES

SCALE: 1/4" = 1'-0"

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BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

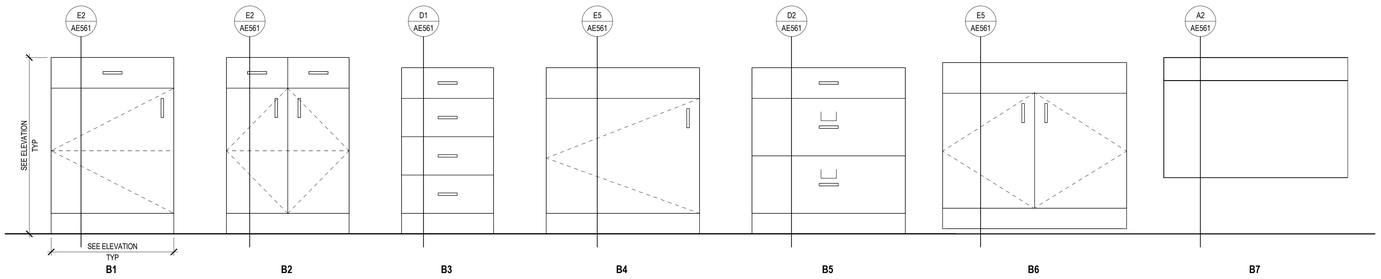
DOOR SCHEDULE, DOOR TYPES, AND FRAMES

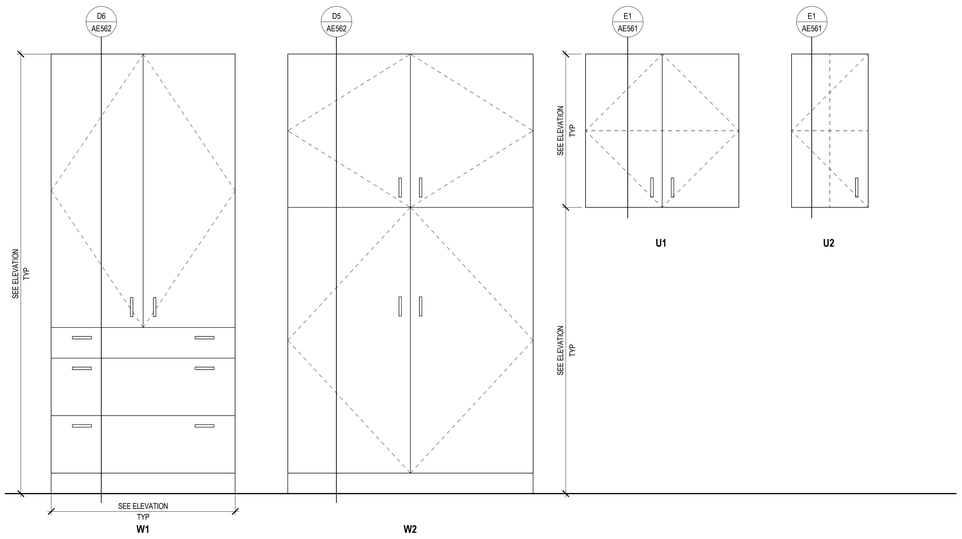
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AE601

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CASEWORK TYPES

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
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TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECT STAMP

LICENSED ARCHITECT STEPHANIE M. KEATS C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

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BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

CASEWORK ELEVATION TYPES

SHEET NUMBER

AE602

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A1 **LEVEL 1 - FLOOR FINISH PLAN**
SCALE: 1/8" = 1'-0"

TRUE NORTH

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SHEET NOTES

1. REFER TO SHEET G1002 FOR ALL ABBREVIATIONS AND SYMBOLS.
2. REFER TO SHEET IE601 SCHEDULE FOR FINISHES FOR FINISH SPECIFICATION INFORMATION.
3. ALL EXPOSED TILE EDGES TO BE PROTECTED WITH METAL TRIM, UNO. REFER TO SHEET IE601 FOR ACCEPTABLE PRODUCT TYPES.
4. ALL FLOORING TRANSITIONS TO OCCUR AT THE CENTER LINE OF THE DOOR OR OPENING, UNO. SEE SHEET IE601 FOR TYPICAL FLOOR TRANSITION DETAILS.
5. SEE INTERIOR ELEVATIONS FOR AREAS TO RECEIVE WALL TILE.
6. REFER TO CEILING PLANS AND FINISH SCHEDULE FOR LOCATION AND EXTENT OF CEILING FINISHES.
7. FINISH PLANS DO NOT SHOW THE FULL EXTENT OF FINISH MATERIALS AND INFORMATION. REFER TO CEILING PLANS, ELEVATIONS, DETAILS, AND ROOM FINISH SCHEDULE FOR ALL AREAS TO RECEIVE FINISHES.
8. COORDINATE INSTALLATION HEIGHT OF WALL GUARDS OR ANY WALL PROTECTION PRIOR TO INSTALLATION, UNO.
9. ALL AREAS WITH A FLOOR DRAIN TO HAVE FLOORING MATERIAL SLOPE TO DRAIN TO ELIMINATE POOLING OR PONDING ON THE SURFACE OF THE FLOOR.
10. WHERE WALL BASE OCCURS AT CASEWORK, BASE IS TO CONTINUE ALONG THE BASE OF THE CASEWORK AND ACROSS THE TOE KICK TO PROVIDE ADDITIONAL PROTECTION TO THE BOTTOM OF THE BUILT-IN UNIT, UNO.
11. WHERE COLUMNS OCCUR IN THE MIDDLE OF A SPACE, UNCONNECTED TO A WALL OR PARTITION, COLUMN IS TO BE PAINTED TO MATCH FIELD COLOR, UNO.
12. ALL SOFFITS AND BULKHEADS TO BE PAINTED TO MATCH FIELD COLOR, UNO.

KEY NOTES - FINISHES

BC1

F01	NEW FLOORING TO ABUT EXISTING FLOOR FINISH. CONTRACTOR TO FOLLOW MANUFACTURER'S GUIDELINES AND RECOMMENDATIONS FOR A SMOOTH, CONTINUOUS TRANSITION FROM EXISTING PRODUCT TO NEW.
F02	REFER TO SHEET IE601 FOR FLOORING TRANSITION INFORMATION AND DETAILS.
F03	ALL CORNER GUARDS TO EXTEND FROM THE FINISHED FLOOR TO THE FINISHED CEILING, UNO.

FINISH LEGEND

SEE SHEET IE601 FOR PRODUCT INFORMATION

(CONC-1) SEALED CONCRETE FLOORING

(LVT-1) LVT FLOORING

(RES-1) RESILIENT SHEET FLOORING - CLINICAL SPACE

(RES-2) RESILIENT SHEET FLOORING - SUITE CIRCULATION

(RES-3) WATER RESISTANT SHEET FLOORING

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHANIA HEARD C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	SH
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
FLOOR FINISH PLAN

SHEET NUMBER
IE101

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1 **LEVEL 1 - WALL FINISH PLAN**
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. REFER TO SHEET G1002 FOR ALL ABBREVIATIONS AND SYMBOLS.
2. REFER TO SHEET IE601 SCHEDULE FOR FINISHES FOR FINISH SPECIFICATION INFORMATION.
3. ALL EXPOSED TILE EDGES TO BE PROTECTED WITH METAL TRIM, UNO. REFER TO SHEET IE601 FOR ACCEPTABLE PRODUCT TYPES.
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10. WHERE WALL BASE OCCURS AT CASEWORK, BASE IS TO CONTINUE ALONG THE BASE OF THE CASEWORK AND ACROSS THE TOE KICK TO PROVIDE ADDITIONAL PROTECTION TO THE BOTTOM OF THE BUILT-IN UNIT, UNO.
11. WHERE COLUMNS OCCUR IN THE MIDDLE OF A SPACE, UNCONNECTED TO A WALL OR PARTITION, COLUMN IS TO BE PAINTED TO MATCH FIELD COLOR, UNO.
12. ALL SOFFITS AND BULKHEADS TO BE PAINTED TO MATCH FIELD COLOR, UNO.

KEY NOTES - FINISHES

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	KM
Draw	KM
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Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

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Office of Statewide Hospital Planning & Development
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S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

WALL FINISH PLAN

SHEET NUMBER

IE102

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FURNITURE SCHEDULE

Item Tag	Description	Count
A1030	Locker, Double Tier, 12" x 15" x 72"	20
A1033	Locker, Triple Tier	3
A1033A	Locker, Triple Tier, ADA	2
A5020	Bench, Locker Room, Floor Mounted	3
F0205	Chair, Side With Arms	2
F0225	Chair, Dining, No Arms	4
F0250	Chair, Arm, Lounge Type	10
F0250A	Chair, Arm, Lounge, w/ Swivel Base	2
F0275	Chair, Swivel, High Back	9
F0705	Table, Computer/Printer, Small	1
F0713	Table, Adjustable Height 48W x 24D	3
F0714	Desk, Adjustable Height, 60x24	3
F0795	Table, Dining, Round, 42"	1
Grand total: 63		

F0205 QTY.2
CONSULTATION / HOLDING E1046
(QTY. 8)
(E) PRESIDENT'S OFFICE E1020
(E) OFFICE E1021
(E) VOLUNTEER 129
(E) DIRECTOR 132
(E) STOR. 128
(E) INFORMATION E1003
ELEV. P4
ELEV. CORRIDOR E1027
(E) ELEC. E1013
(E) COMM. RM. E1014
HYPERBARIC THERAPY E1051
HKPG E1051C
S.T. E1051B
A1033A
A1033
P.T./ CHANGING E1051A
A5020
STAFF LOUNGE E1039
F0795
F0225 (QTY. 4)
HSKG E1038
CORRIDOR E1059B
MALE STAFF CHANGING / LOCKERS E1060
MALE S.T. / SHOWER E1061
A1030 (QTY. 10)
FEMALE S.T. / SHOWER E1071
A5020
ANTE ROOM E1041
AIRBORNE INFECTION ISOLATION EXAM/ PACU E1056H
ALCOVE E1058
FEMALE STAFF CHANGING / LOCKERS E1062
A1030 (QTY. 10)
A5020
POST-PROC BAY E1056G
ST. TOIL E1057
(E) EMG 87
(E) OFF. 88
(E) NEURO READING 91
(E) CARDIO READING 92
(E) INHALATION THERAPY 93
CORRIDOR E1165

Q O N.4 N M L K

5 7 9 10.3 11 11.8 12.4 12.6 14 14.6 15

F E D C B A

TRUE NORTH

N

A1 LEVEL 1 - FURNITURE PLAN - ZONE A
SCALE: 1/4" = 1'-0"

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHANIE M. KEACH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	KM
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Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
FURNITURE PLAN - ZONE A

SHEET NUMBER
IE131

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FURNITURE SCHEDULE

Item Tag	Description	Count
A1030	Locker, Double Tier, 12" x 15" x 72"	20
A1033	Locker, Triple Tier	3
A1033A	Locker, Triple Tier, ADA	2
A5020	Bench, Locker Room, Floor Mounted	3
F0205	Chair, Side With Arms	2
F0225	Chair, Dining, No Arms	4
F0250	Chair, Arm, Lounge Type	10
F0250A	Chair, Arm, Lounge, w/ Swivel Base	2
F0275	Chair, Swivel, High Back	9
F0705	Table, Computer/Printer, Small	1
F0713	Table, Adjustable Height 48W x 24D	3
F0714	Desk, Adjustable Height, 60x24	3
F0795	Table, Dining, Round, 42"	1
Grand total: 63		



A1 LEVEL 1 - FURNITURE PLAN - ZONE B
SCALE: 1/4" = 1'-0"

TRUE NORTH

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHEN A. KREKORIAN C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	KM
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Check	Checker
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BUILDING TITLE

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PROJECT TITLE

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

FURNITURE PLAN - ZONE B

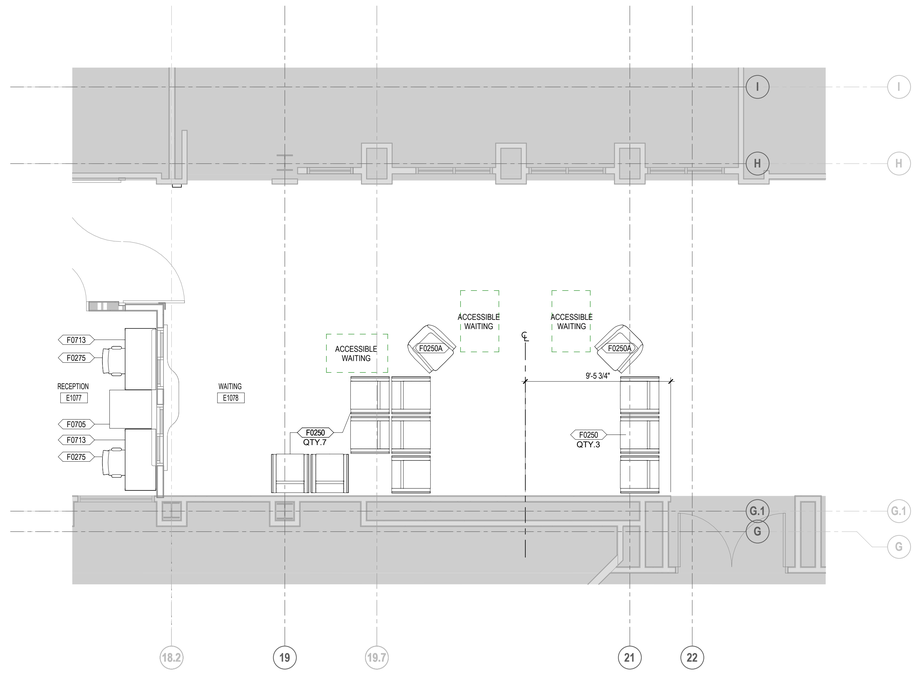
SHEET NUMBER

IE132

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FURNITURE SCHEDULE

Item Tag	Description	Count
A1030	Locker, Double Tier, 12" x 15" x 72"	20
A1033	Locker, Triple Tier	3
A1033A	Locker, Triple Tier, ADA	2
A5020	Bench, Locker Room, Floor Mounted	3
F0205	Chair, Side With Arms	2
F0225	Chair, Dining, No Arms	4
F0250	Chair, Arm, Lounge Type	10
F0250A	Chair, Arm, Lounge, w/ Swivel Base	2
F0275	Chair, Swivel, High Back	9
F0705	Table, Computer/Printer, Small	1
F0713	Table, Adjustable Height 48W x 24D	3
F0714	Desk, Adjustable Height, 60x24	3
F0795	Table, Dining, Round, 42"	1
Grand total: 63		



A4 **LEVEL 1 - FURNITURE PLAN - ZONE C**
SCALE: 1/4" = 1'-0"

TRUE NORTH

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

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TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEARD C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
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BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	KM
Draw	KM
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

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BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

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FM08430011869	047-10071-002

SHEET NAME

FURNITURE PLAN - ZONE C

SHEET NUMBER

IE133

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The Press-Enterprise
3512 14th Street
Riverside, CA 92501
Willoughby, OH 44096
951-368-9222
951-368-9018 FAX

BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE
PO BOX 1147
RIVERSIDE, CA 92502

Account Number:	5209148
Ad Order Number:	0011774385
Customer's Reference / PO Number:	Catheterization Laboratory / NIB: Cardiac
Publication:	The Press-Enterprise
Publication Dates:	01/28/2026, 02/04/2026
Amount:	$4,257.50
Payment Amount:	$0.00

The Press-Enterprise
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Riverside, CA 92501
Willoughby, OH 44096
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951-368-9018 FAX

5209148

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PO BOX 1147
RIVERSIDE, CA 92502

Publication: The Press-Enterprise

PROOF OF PUBLICATION OF

Ad Desc: Catheterization Laboratory / NIB: Cardiac

FILE NO. NIB: Cardiac

PROOF OF PUBLICATION

I am a citizen of the United States. I am over the age of eighteen years and not a party to or interested in the above entitled matter. I am an authorized representative of THE PRESS-ENTERPRISE, a newspaper in general circulation, printed and published daily in the County of Riverside, and which newspaper has been adjudicated a newspaper of general circulation by the Superior Court of the County of Riverside, State of California, under date of April 25, 1952, Case Number 54446, under date of March 29, 1957, Case Number 65673, under date of August 25, 1995, Case Number 267864, and under date of September 16, 2013, Case Number RIC 1309013; that the notice, of which the annexed is a printed copy, has been published in said newspaper in accordance with the instructions of the person(s) requesting publication, and not in any supplement thereof on the following dates, to wit:

01/28/2026, 02/04/2026

I certify (or declare) under penalty of perjury that the foregoing is true and correct:

Date: February 04, 2026.
At: Riverside, California

Legal Advertising Representative, The Press-Enterprise

Legal No. **0011774385**

Ad Copy:

Legal Notice | Legal Notice | Legal Notice | Legal Notice | Legal Notice

SUMMONS (CITACION JUDICIAL)
CASE NUMBER: (Numero del Caso):
CIVSB2518336

NOTICE TO DEFENDANT:
(AVISO AL DEMANDADO):
Jorge Zuniga Isias and Erika Zuniga
YOU ARE BEING SUED BY PLAINTIFF: (LO ESTA DEMANDANDO EL DEMANDANTE):
JUAN CARLOS LEON-HERERA.

NOTICE! You have been sued. The court may decide against you without your being heard unless you respond within 30 days. Read the information below.
You have 30 CALENDAR DAYS after this summons and legal papers are served on you to file a written response at this court and have a copy served on the plaintiff. A letter or phone call will not protect you. Your written response must be in proper legal form if you want the court to hear your case. There may be a court form that you can use for your response. You can find these court forms and more information at the California Courts Online Self-Help Center **(www.courtinfo.ca.gov/selfhelp)**, your county law library, or the courthouse nearest you. If you cannot pay the filing fee, ask the court clerk for a fee waiver form. If you do not file your response on time, you may lose the case by default, and your wages, money, and property may be taken without further warning from the court.
There are other legal requirements. You may want to call an attorney right away. If you do not know an attorney, you may want to call an attorney referral service. If you cannot afford an attorney, you may be eligible for free legal services from a nonprofit legal services program. You can locate these nonprofit groups at the California Legal Services Web site **(www.lawhelpcalifornia.org)**, the California Courts Online Self-Help Center **(www.courtinfo.ca.gov/selfhelp)**, or by contacting your local court or county bar association. **NOTE:** The Court has a statutory lien for waived fees and costs on any settlement or arbitration award of $10,000 or more in a civil case. The court's lien must be paid before the court will dismiss the case. **AVISO!** Lo han demandado. Si no responde dentro de 30 dias, la corte puede decidir en su contra sin escuchar su version. Lea la informacion a continuacion.
Tiene 30 DIAS DE CALENDARIO despues de que le entreguen esta citacion y papeles legales para presentar una respuesta por escrito en esta corte y hacer que se entregue una copia al demandante. Una carta o una llamada telefonica no lo protegen. Su respuesta por escrito tiene que estar en formato legal correcto si desea que procesen su caso en la corte. Es posible que haya un formulario que usted pueda usar para su respuesta. Puede encontrar estos formularios de la corte y mas informacion en el Centro de Ayuda de las Cortes de California **(www.sucorte.ca.gov)**, en la biblioteca de leyes de su condado o en la corte que le quede mas cerca. Si no pueda pagar la cuota de presentacion, pida al secretario de la corte que le de un formulario de exencion de pago de cuotas. Si no presenta su respuesta a tiempo, puede perder el caso por incumplimiento y la corte le podra quitar su sueldo, dinero y bienes sin mas advertencia.
Hay otros requisitos legales. Es recomendable que llame a un abogado inmediatamente. Si no conoce a un abogado, puede llamar a un servicio de remision a abogados. Si no puede pagar a un abogado, es posible que cumpla con los requisitos para obtener servicios legales gratuitos de un programa de servicios legales sin fines de lucro. Puede encontrar estos grupos sin fines de lucro en el sitio web de California Legal Services, **(www.lawhelpcalifornia.org)**, en el Centro de Ayuda de las Cortes del California, **(www.sucorte.cagov)** o poniendose en contacto con la corte o el colegio de abogados locales. **AVISO:** Por ley, la corte tiene derecho a reclamar las cuotas y los costos exentos por imponer un gravamen sobre cualquier recuperacion de $10,000 o mas de valor recibida mediante un acuerdo o una concesion de arbitraje en un caso de derecho civil. Tiene que pagar el gravamen de la corte antes de que la corte pueda desechar el caso.
The name and address of the court is: (El nombre y direccion de la corte es):
San Bernardino Superior Court-Civil
247 West 3rd St San Bernardino, CA 92415
The name, address, and telephone number of plaintiff's attorney, or plaintiff without an attorney, is: (El nombre, la direccion y el numero de telefono del abogado del demandante, o del demandante que no tiene abogado, es):
Craig A. Henderson, DeSouza Injury Lawyers
4047 Naco Perrin, San Antonio, TX 78217

(210) 328-9219
DATE: (Fecha) 07/30/2025
Clerk, by (secretario) Anabel Z. Romero
Mariah Mora, Deputy (Adjunto)
[SEAL]
The Sun (San Bernardino)
Published: 1/21, 1/28, 2/4, 2/11/26

SUMMONS (CITACION JUDICIAL)
CASE NUMBER: (Numero del Caso):
CVME2510186

NOTICE TO DEFENDANT:
(AVISO AL DEMANDADO): BRUCE AKERS, LINDA AKERS, RHONDA AKERS, STEPHANIE AKERS, DAVID AKERS a.k.a. JOSHUA DAVID AKERS, and DOES 1 through 10, inclusive,

YOU ARE BEING SUED BY PLAINTIFF:
(LO ESTA DEMANDANDO EL DEMANDANTE):
LARRY HOLMES JR., an individual; and LARRY C. HOLMES, as co-trustee of the HOLMES FAMILY TRUST, dated September 30, 1988.

NOTICE! You have been sued. The court may decide against you without your being heard unless you respond within 30 days. Read the information below.
You have 30 CALENDAR DAYS after this summons and legal papers are served on you to file a written response at this court and have a copy served on the plaintiff. A letter or phone call will not protect you. Your written response must be in proper legal form if you want the court to hear your case. There may be a court form that you can use for your response. You can find these court forms and more information at the California Courts Online Self-Help Center (www.courtinfo.ca.gov/selfhelp), your county law library, or the courthouse nearest you. If you cannot pay the filing fee, ask the court clerk for a fee waiver form. If you do not file your response on time, you may lose the case by default, and your wages, money, and property may be taken without further warning from the court.
There are other legal requirements. You may want to call an attorney right away. If you do not know an attorney, you may want to call an attorney referral service. If you cannot afford an attorney, you may be eligible for free legal services from a nonprofit legal services program. You can locate these nonprofit groups at the California Legal Services Web site (www.lawhelpcalifornia.org), the California Courts Online Self-Help Center (www.courtinfo.ca.gov/selfhelp), or by contacting your local court or county bar association. NOTE: The Court has a statutory lien for waived fees and costs on any settlement or arbitration award of $10,000 or more in a civil case. The court's lien must be paid before the court will dismiss the case.
AVISO! Lo han demandado. Si no responde dentro de 30 dias, la corte puede decidir en su contra sin escuchar su version. Lea la informacion a continuacion.
Tiene 30 DIAS DE CALENDARIO despues de que le entreguen esta citacion y papeles legales para presentar una respuesta por escrito en esta corte y hacer que se entregue una copia al demandante. Una carta o una llamada telefonica no lo protegen. Su respuesta por escrito tiene que estar en formato legal correcto si desea que procesen su caso en la corte. Es posible que haya un formulario que usted pueda usar para su respuesta. Puede encontrar estos formularios de la corte y mas informacion en el Centro de Ayuda de las Cortes de California (www.sucorte.ca.gov), en la biblioteca de leyes de su condado o en la corte que le quede mas cerca. Si no pueda pagar la cuota de presentacion, pida al secretario de la corte que le de un formulario de exencion de pago de cuotas. Si no presenta su respuesta a tiempo, puede perder el caso por incumplimiento y la corte le podra quitar su sueldo, dinero y bienes sin mas advertencia.
Hay otros requisitos legales. Es recomendable que llame a un abogado inmediatamente. Si no conoce a un abogado, puede llamar a un servicio de remision a abogados. Si no puede pagar a un abogado, es posible que cumpla con los requisitos para obtener servicios legales gratuitos de un programa de servicios legales sin fines de lucro. Puede encontrar estos grupos sin fines de lucro en el sitio web de California Legal Services, (www.lawhelpcalifornia.org), en el Centro de Ayuda de las Cortes del California, (www.sucorte.cagov) o poniendose en contacto con la corte o el colegio de abogados locales. AVISO: Por ley, la corte tiene derecho a reclamar las cuotas y los costos exentos por imponer un gravamen sobre cualquier recuperacion de $10,000 o mas de valor recibida mediante un acuerdo o una concesion de arbitraje en un caso de derecho civil. Tiene que pagar el gravamen de la corte antes de que la corte pueda desechar el caso.

The name and address of the court is: (El nombre y direccion de la corte es):
Menifee Justice Center,
27401 Menifee Center Drive, Menifee, CA 92584.
The name, address, and telephone number of plaintiff's attorney, or plaintiff without an attorney, is:
(El nombre, la direccion y el numero de telefono del abogado del demandante, o del demandante que no tiene abogado, es):
Christopher G. Hook
1801 Century Park E., 25th Floor
Los Angeles, CA 90067. (310)272-8566

DATE: (Fecha) 8/27/2025
Jason B. Galkin Clerk, by (secretario) Jennifer Smith, Deputy (Adjunto)
The Press-Enterprise
Published: 1/28, 2/4, 2/11, 2/18/26

ORDER TO SHOW CAUSE
FOR CHANGE OF NAME
CASE NUMBER: 2534036
PETITION OF:

FOR CHANGE OF NAME

TO ALL INTERESTED PERSONS:
1. Petitioner: Hilda Castillo filed a petition with this court for a decree changing names as follows:
Present name:
Elda Castillo
Proposed name:
Hilda Castillo
2. THE COURT ORDERS that all persons interested in this matter shall appear before this court at the hearing indicated below to show cause, if any, why the petition for change of name should not be granted. Any person objecting to the name changes described above must file a written objection that includes at least two court days before the matter is scheduled to be heard and must appear at the hearing to show cause why the petition should not be granted. If not written objection is timely filed, the court may grant the petition without a hearing.
NOTICE OF HEARING
Date: 02-09-26 **Time:** 8:30 a.m.
Dept: S26
The address of the court is:
SUPERIOR COURT OF CALIFORNIA
COUNTY ODF SAN BERNARDINO 247 W. Third Street , San Bernardino CA 92415-0210
BRANCH NAME: **San Bernardino District-Civil Division**
3. A copy of this **Order to Show Cause** shall be published at least once in each week for four successive weeks prior to the date set for hearing on the petition in the following newspaper of general circulation, printed in this county:
NEWSPAPER NAME: San Bernardino County Sun
/S/ Gilbert G. Ochoa
JUDGE OF THE SUPERIOR COURT
Date: **DEC -8 2025**
The Sun (San Bernardino)
Published: 1/14, 1/21, 1/28, 2/4/26

NOTICE INVITING BIDS
NOTICE IS HEREBY GIVEN that the Moreno Valley Unified School District ("District") is seeking sealed bids from qualified, experienced, and licensed contractors for construction/installation of the following public-project ("Project"): Bid No: 25-25-08 Playground Pour in Place Unit Price.

BID DOCUMENTS: The documents necessary to submit a bid for the Project ("Bid Documents") are available for download, at no cost, from the following link on the District's website: https://vendors.planetbids.com/portal/59999/portal-home

BIDDING LOCATION: Bidders must submit bids electronically via the Planet Bids portal.

BID DEADLINE: Bids must be received at the Bidding Location not later than Thursday, February 19, 2026 at 2:00PM ("Bid Deadline").

REQUIRED BID SECURITY: Each bid must be submitted with bid security as described in the Instructions for Bidders.

CONTRACTOR LICENSE: In order to bid on the Work, a contractor must have a CSLB-issued contractor license with the following classification(s): B with C-61 or D-12

PRE-BID CONFERENCE: No Pre-Bid Conference will be held.
SURETY BONDS: As described in the General Provisions, the successful bidder must provide a Performance Bond and a separate Payment Bond, each in an amount equal to 100% of the total Contract Amount.

LABOR LAW: The Project is a "public work" that is subject, among other provisions, to Labor Code Sections 1720 through 1861, inclusive. As described in the Instructions for Bidders, each contractor and subcontractor must be registered with the DIR in accordance with Labor Code Section 1725.5, and bidders must provide evidence of registration for themselves and their subcontractors. Each worker on the Project must be paid not less than the applicable Prevailing Wages. A copy of the applicable rates of Prevailing Wages will be on file and available for review at the Bidding Location, and a copy will be posted at the Project Site. The Project is subject to compliance monitoring and enforcement by the DIR. The successful bidder will be required to post all job-site notices required by DIR regulations and other applicable law. As described in the Special Provisions, the District will conduct a Mandatory Preconstruction Conference for purposes of, among other things, describing labor-law requirements.
The Press-Enterprise
Published: 1/28, 2/4/26

Legal Notice | Legal Notice | Legal Notice | Legal Notice | Legal Notice

DOCUMENT 00 11 16
NOTICE TO BIDDERS

The **County of Riverside** ("County") will receive sealed bids for the **Construction** Management - **Multi-Prime Bid Project No. MC08430011869 - Cardiac Catheterization Laboratory – All Bid Categories (see Bid Category List Below).**

CARDIAC CATHETERIZATION LABORATORY no later than 2:00 PM on April 02nd, 2026 (the "Bid Deadline")

at **Clerk of the Board located on the 1st Floor of the County Administrative Center, 4080 Lemon Street, Riverside, CA 92501**. The Project consists of Construction of approximately 46,000 square foot tenant improvement of an of Work of Project will be defined in the Contract Documents and consist of an 8,600 square foot Cardiac Catheterization Lab Suite comprised of two (2) catheterization labs with their own dedicated control rooms and imaging equipment rooms. Support spaces for the catheterization lab suite will include Clean and Soiled Utility Rooms, Storage, Medication Preparation, Pre/Post Op beds, Nurse station and Staff and Administration areas. An additional 720 square feet will be renovated to enlarge the existing hyperbaric room and provide one (1) additional hyperbaric therapy chamber. The total project square footage will be 9,320 square feet ("County Documents"). This Project is being constructed using Multiple Prime Contractors, totaling approximately 16 unique bid packages with each prime trade contractor executing a direct contract with the owner. The Construction Manager will provide full-time, on-site construction management including coordination and scheduling for the entire Project as further described in the bid and contact documents. The pre-qualified Bidders shall review the County Documents for more complete information regarding the Project and submission of bids. The architect's/engineer's construction cost estimate for this Project, including alternates, is **$12,982,000.**

Bid Documents will be available on **February 2, 2026, via www.ruhealth.org/rfp-rfq and by contacting Bernards Brothers at CM-RUHS@bernards.com.** Bidders shall submit to Clerk of the Board all documents for bidding as provided for in the Instruction to Bidders. **Bids will only be accepted from bidders who have previously pre-qualified and registered all of its current information with the County's online database at www.purchasing.co.riverside.ca.us, including W-9 and IRS 147C forms; or update its information if already registered with the County of Riverside. Bidders viewing plans online are responsible for contacting CM-RUHS@bernards.com and requesting to be included on the Plan holders List.** Bid sets are available for viewing in the Construction Manager's office located at 14375 Nason Street, Ste. 102, Moreno Valley, CA 92555. Bidders are responsible for confirmation that they have viewed all addenda prior to the bid deadline and will be required to acknowledge addenda on their bid form.

A **mandatory** pre-bid meeting and job walk for prime contractors will be held on

17th, February 2026 at 8:00 AM
For Packages 02 RUHS-02 Demo, 04 RUHS-05 Structural Steel, 13 RUHS-21 Fire Sprinkler, 14 RUHS-22 Plumbing, 15 RUHS-23 HVAC and 16 RUHS-26, 27, 29 Electrical and Low Voltage

18th , February 2026 at 8:00 AM
For Packages 09 RUHS-09 Framing, Drywall, Plaster and Shielding, 07 RUHS-08 Doors Frames and Hardware, 03 RUHS-03 Concrete, 06 RUHS-07 Roofing and Sheet Metal,

19th, February 2026 at 8:00 AM
For Packages 01 RUHS-10 Misc. Specialties 05 RUHS-06 Millwork, 08 RUHS-08 Glazing, 10 RUHS -09 Acoustical Panel Ceilings, 11 RUHS-09 Painting and Wall Covering, and 12 RUHS 09 Flooring and Tile

at **26520 Cactus Ave, Moreno Valley, CA 92555. All Trades** . The deadline to submit a request for information (RFI) is **March 04th, 2026.** RFI's may be submitted to CMRUHS@bernards.com. Any supplemental instructions will be in the form of written addenda, which, when issued, will be posted via www.ruhealth.org/rfp-rfq not later than seventy-two (72) hours prior to the date fixed for the opening of bids. All addenda so issued shall become Part of the Contract and acknowledged by Bidder.

Only Pre-qualified contractors are allowed to bid. Bids must be submitted to the County on the County's bid forms. **All bids must be addressed, sealed in an envelope, and received by to the Clerk of the Board located on the 1st Floor of the County Administrative Center, 4080 Lemon Street, Riverside, CA 92501 no later than the Bid Deadline.** All bids will be publicly opened immediately after the Bid Deadline. Bids received after the Bid Deadline shall be rejected. County reserves the right to reject any or all bids and to waive any informality or irregularity in any bid received.

Bids shall be valid for **one hundred twenty (120) days** after the Bid Deadline. Bids must be accompanied by cash, a certified or cashier's check, or a bid bond in favor of the County in an amount not less than ten percent (10%) of the submitted total bid price. The successful bidder will be required to furnish a performance bond and a payment bond, each in the amount of one hundred percent (100%) of the total bid price in the manner described in the Contract Documents. Bidders shall comply with California Public Contract Code Section 4108 with respect to subcontractor bond requirements. Bidders shall possess one or more of the following California Contractor's license(s) at the time of the bid opening in order to perform the work:

Category # Description License	Category # Description License	Category # Description License
00	RUHS-00 General Requirements - All Bid Packages	All
01	RUHS-10 Misc. Specialties	A, B, C5
02	RUHS-02 Demo	A, B, C21
03	RUHS-03 Concrete	A, B, C8
04	RUHS-05 Structural Steel	A, B, C51
05	RUHS-06 Millwork	A, B, C6
06	RUHS-07 Roofing and Sheet Metal	A, B, C39, C43
07	RUHS-08 Doors Frames and Hardware	A, B, C5, C6
08	RUHS-08 Glazing	A, B, C17
09	RUHS-09 Framing, Drywall, Plaster and Shielding	A, B, C5, C9
10	RUHS -09 Acoustical Panel Ceilings	A, B, C5, C2
11	RUHS-09 Painting and Wall Covering	A, B, C5, C33
12	RUHS 09 Flooring and Tile	A, B, C15
13	RUHS-21 Fire Sprinkler	A, B, C16
14	RUHS-22 Plumbing	A, B, C36
15	RUHS-23 HVAC	A, B, C36
16	RUHS-26, 27, 29 Electrical and Low Voltage	A, B, C20

Contractors wishing to bid on select trades **must** have been previously pre-qualified by the County prior to Bid Due Date. Subcontractors must possess the appropriate licenses for each specialty subcontracted. Bids will only be accepted from bidders who have previously prequalified and registered all of its current information with the County's online database at www.purchasing.co.riverside.ca.us, including W-9 and IRS 147C forms; or update its information if already registered with the County of Riverside.

Bid Form. If Alternates are included in the Bidding Documents, then a Bid amount for each and every such Alternate shall be included in the spaces provided in the Bid Form for that purpose. If the Bidder determines that the Alternate does not affect the amount of its Base Bid, then the Bidder shall enter "No Change" in the Bid Form.

Lay Down. All bidders should include pricing to relocate from the assigned lay-down area the first week of May 2027.

Basis for Award. Where the Bidding Documents include Allowances; the Lowest Bid Price is the Total Bid Amount identified on the Bid Form and shall include the Base Bid plus all Allowances. In the event of Alternate Bids, Alternate Bids shall not be included in the Total Bid Amount. If applicable the Alternate Bids shall be listed separately on the spaces provided on the Bid Form for Alternate Bids.

In-Use Off-Road Diesel-Fueled Fleet Certificate of Reported Compliance. Valid Certificates of Reported Compliance as described in California Code of Regulations, title 13, section 2449(n) for fleets of vehicles subject to 13 CCR section 2449 are required for this project.

This Project is public work for purposes of the California Labor Code, which requires payment of prevailing wages. County has obtained the general prevailing rates, which will be on file with the County's Construction Manager and will be available to any interested party.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in the Labor Code, unless registered and qualified to perform public work pursuant to Labor Code section 1725.5.

The contractor and all subcontractors shall furnish certified payroll records as required pursuant Labor Code section 1776 directly to the Labor Commissioner in accordance with Labor Code section 1771.4 at least monthly (or more frequently if required by the County or the Labor Commissioner) and in a format prescribed by the Labor Commissioner. Monitoring and enforcement of the prevailing wage laws and related requirements will be performed by the Labor Commissioner/Department of Labor Standards Enforcement (DLSE), and by the County.

COUNTY OF RIVERSIDE

By: Carlos Cueva, Director of Facilities Design & Development, Riverside University Health System Medical Center, County of Riverside

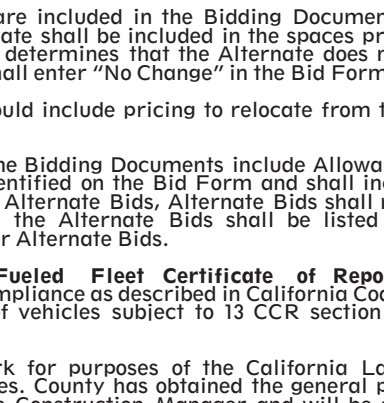
Published: Cardiac Catheterization Laboratory – 02/02/2026

Alternative formats available upon request to individuals with disabilities. If you require reasonable accommodation, please contact Clerk of the Board at (951) 955-1069.

Dated: January 15, 2026

KIMBERLY A. RECTOR
Clerk of the Board of Supervisors
By: Naomy Sicra, Clerk of the Board Assistant

Published The Press-Enterprise 1/28, 2/4/2026



Are you in the market for a
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THE SUN | THE PRESS-ENTERPRISE | INLAND VALLEY DAILY BULLETIN
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