

SUBMITTAL TO THE BOARD OF SUPERVISORS  
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA



ITEM: 3.43  
(ID # 23387)

MEETING DATE:

Tuesday, February 25, 2025

FROM : TLMA - AVIATION

**SUBJECT:** TRANSPORTATION AND LAND MANAGEMENT AGENCY/AVIATION: Approval of the Plans and Specifications and Authorization to Advertise for Bids for the French Valley Airport Apron Pavement Rehabilitation Project; District 3. [\$6,566,709 Total Cost - Federal Aviation Administration Airport Improvement Grant funds 90%, Airport Budget Fund (22350) 5%, and State Division of Aeronautics Fund 5%] CEQA Exempt per State CEQA Guidelines Sections 15301, 15302, and 15061(b)(3) (Clerk of the Board to file Notice of Exemption) (Clerk of Board to Advertise for Bids for Construction of Airport Improvements)

**RECOMMENDED MOTION:** That the Board of Supervisors:

1. **Find** that the French Valley Airport Apron Pavement Rehabilitation Project is exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines Section 15301, Class 1 Existing Facilities Exemption; Section 15302 Replacement or Reconstruction; and Section 15061 (b)(3) "Common Sense" Exemption, and categorically excluded from the National Environmental Policy Act (NEPA) US Department of Transportation Federal Aviation Administration Order 1050.1E, Categorical Exclusion 5-6.4e Facility Siting, Construction, and Maintenance;
2. **Approve** the specifications and contract documents for the construction of the French Valley Airport Apron Pavement Rehabilitation Project;
3. **Authorize** the Clerk of the Board to Advertise for bids to be received by the Office of the Clerk of the Board of Supervisors for the County of Riverside, located at 4080 Lemon Street 1<sup>st</sup> Floor, Riverside California 92501. All bids must be received up to the hour of 2:00 PM on Thursday, March 20, 2025, at which time the bids will be opened; and
4. **Direct** the Clerk of the Board of Supervisors to file the Notice of Exemption with the County Clerk for posting within five (5) working days.

**ACTION:**Policy

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MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Spiegel, seconded by Supervisor Perez 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: February 25, 2025  
xc: TLMA-Aviation, Recorder, COBCF

Kimberly A. Rector  
Clerk of the Board

By:   
Deputy

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,  
STATE OF CALIFORNIA**

<b>FINANCIAL DATA</b>	<b>Current Fiscal Year:</b>	<b>Next Fiscal Year:</b>	<b>Total Cost:</b>	<b>Ongoing Cost</b>
<b>COST</b>	\$ 6,566,709	\$ 0	\$ 6,566,709	\$ 0
<b>NET COUNTY COST</b>	\$ 0	\$ 0	\$ 0	\$ 0
<b>SOURCE OF FUNDS:</b> Federal Aviation Administration Airport Improvement Funds 90%, Airport Budget Fund (22350) 5%, and State Division of Aeronautics Fund 5%			<b>Budget Adjustment:</b> No	
			<b>For Fiscal Year:</b> 24/25	

**C.E.O. RECOMMENDATION:** Approve

**BACKGROUND:**

**Summary**

On February 25, 2020, The Board of Supervisors approved the five-year design and engineering services agreement with C&S Companies for airport engineering, architectural, planning, and environmental services which includes design, construction administration, construction inspection of projects, planning and environmental services for the County's five airports. The design services for the French Valley Airport Apron Pavement Rehabilitation Project is now complete, and staff request approval to solicit bids for construction of the project.

The purpose of this project is to rehabilitate the North and Middle Apron areas currently exhibiting weathering and block transverse alligator cracking. The Middle Apron will be fully reconstructed, while the North Apron will receive rehabilitation by slurry sealing, crack filling, and pavement patches. No grading of shoulders or improvements outside of the existing pavement limits, and no drainage improvements or BMP development is required.

The French Valley Airport Pavement Rehabilitation Project is consistent with the Airport's Capital Improvement Program Master Plan. The project documents have been reviewed and approved by the Federal Aviation Administration (FAA) and are consistent with current guidelines for General Aviation facilities.

The proposed Project is categorically exempt from the provisions of CEQA according to the State CEQA Guidelines Section 15301, Class 1 Existing Facilities Exemption; Section 15302 Replacement or Reconstruction; and Section 15061 (b)(3) "Common Sense" Exemption, and categorically excluded from NEPA US Department of Transportation Federal Aviation Administration Order 1050.1E, Categorical Exclusion 5-6.4e Facility Siting, Construction, and Maintenance. The Project will not cause any impact to an environmental resource of hazardous or critical concern, nor would the Project include unusual circumstances which would have a potentially significant effect on the environment.

County Counsel has reviewed and approved the plans and specification as to legal form.



**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,  
STATE OF CALIFORNIA**

**Impact on Residents and Businesses**

The French Valley Airport Apron Pavement Rehabilitation Project will improve the airport operations and enhance capacity and safety.

**Additional Fiscal Information**


The project will be financed using the Federal Aviation Administration Airport Improvement Grant Funds 90%, Special Aviation Budget Fund (22350) 5%, and State Division of Aeronautics Fund 5%. There will be no impact on the County's general fund.

**ATTACHMENTS:**

- Specifications and Contract Documents
- Notice to Bidders
- Contract Drawings
- Notice of Exemption

  
\_\_\_\_\_  
Jason Farin, Principal Policy Analyst      2/19/2025

County of Riverside  
3450 14<sup>th</sup> Street, Riverside, CA 92501

<b>FILED / POSTED</b>		
County of Riverside		
Peter Aldana		
Assessor-County Clerk-Recorder		
E-202500164		
02/26/2025 10:06 AM Fee: \$ 50.00		
Page 1 of 2		
Removed:	By:	Deputy
		

## NOTICE OF EXEMPTION

September 22, 2022

**Project Name:** County of Riverside Aviation, North and Middle Apron Pavement Rehabilitation, French Valley Airport, Murrieta

**Project Number:** FM05191011913

**Project Location:** 37600 Sky Canyon Drive, east of State Route 79, Assessor's Parcel Number (APN) 963-030-010, Murrieta, Riverside County, California, 92563

**Description of Project:** On February 25, 2020, The Board of Supervisors approved the five-year design and engineering services agreement with C&S Companies for airport engineering, architectural, planning, and environmental services which includes design, construction administration, construction inspection of projects, planning and environmental services for the County's five airports. The attached work order is for design services for the French Valley Airport North and Middle Apron Pavement Rehabilitation Project (Project).

The purpose of this project is to design the North and Middle Apron areas currently exhibiting weathering and block transverse alligator cracking. The Middle Apron will be fully reconstructed, while the North Apron will receive rehabilitation by slurry sealing, crack filling, and pavement patches. No grading of shoulders or improvements outside of the existing pavement limits is anticipated, and no drainage improvements or BMP development is anticipated. The services to be provided by the Consultant shall include civil and geotechnical engineering services, as applicable, required to accomplish the design of this project.

The North and Middle Apron Pavement Rehabilitation Project is consistent with the Airport's Capital Improvement Program Master Plan. C&S Companies was selected by Request for Qualification as the County's Airport Project Consultant, per the Federal Aviation Administration's (FAA) five-year consultant selection criteria. The pavement rehabilitation to the north and middle apron at French Valley Airport is identified as the proposed project under the California Environmental Quality Act (CEQA). No additional direct or indirect physical environmental impacts are anticipated.

**Name of Public Agency Approving Project:** Riverside County

**Name of Person or Agency Carrying Out Project:** Riverside County Aviation

**Exempt Status:** State CEQA Guidelines Section 15301, Class 1, Existing Facilities Exemption; Section 15302 Replacement or Reconstruction Exemption, Section 15061(b) (3), General Rule or "Common Sense" Exemption. Codified under California Code of Regulations Title 14, Article 5, Sections 15301, 15302, and 15061.



- **Section 15301 –Existing Facilities:** This Class 1 categorical exemption includes the operation, repair, maintenance, leasing, or minor alteration of existing public or private structures or facilities, provided the exemption only involves negligible or no expansion of the previous site's use. The project is the replacement and rehabilitation of existing transportation infrastructure at an existing airport. The improvements to north and middle apron will have the same purpose and substantially similar capacity, would be within the existing transportation infrastructure footprint, and would be consistent with the existing land use. Therefore, the project is exempt as it meets the scope and intent of the Categorical Exemption identified in Section 15301, Article 19, Categorical Exemptions of the CEQA Guidelines.
- **Section 15302 –Replacement or Reconstruction:** This Class 2 categorical exemption consists of the replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced. Under (c), replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity. The project, as proposed, is the replacement and rehabilitation of an existing runway apron with new infrastructure in the same location with similar size and capacity. The improvements are part of an existing facility that provides transportation services. The replacement would have the same purpose as the existing transportation infrastructure and is being implemented to maintain an appropriate level of safety and operational efficiency. Therefore, the project is exempt as it meets the scope and intent of the Categorical Exemption identified in Section 15302, Article 19, Categorical Exemptions of the CEQA Guidelines.
- **Section 15061 (b) (3) – “Common Sense” Exemption:** In accordance with CEQA, the use of the Common Sense Exemption is based on the “general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment.” State CEQA Guidelines, Section 15061(b) (3). The use of this exemption is appropriate if “it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.” *Ibid*. This determination is an issue of fact and if sufficient evidence exists in the record that the activity cannot have a significant effect on the environment, then the exemption applies and no further evaluation under CEQA is required. See *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal. 3d 68. The ruling in this case stated that if a project falls within a category exempt by administrative regulation or 'it can be seen with certainty that the activity in question will not have a significant effect on the environment', no further agency evaluation is required. With certainty, there is no possibility that the project may have a significant effect on the environment. The proposed new transportation infrastructure at the existing airport will not result in any direct or indirect physical environmental impacts. The rehabilitation of the airport apron would not increase the capacity of the site and would be installed to continue the safety and security of the existing transportation services at an existing County owned facility. The use and operation of the runway and apron will be substantially similar to the existing use and will not create any new environmental impacts. Therefore, in no way, would the project as proposed have the potential to cause a significant environmental impact and the project is exempt from further CEQA analysis.

The rehabilitation of the apron was also reviewed under the National Environmental Policy Act (NEPA) and found to be categorically excluded under 310e Airfield Improvements of FAA Order 1050.1E. The scope of work falls within the build, repair, or extend existing airport's aprons, loading ramps, taxiway, or taxi lane provided they have only on-airport impacts and no unusual or extraordinary circumstances exist which would preclude the use of this categorical exclusion. Therefore, the County of Riverside hereby concludes that no physical environmental impacts are anticipated to occur and the project as proposed is exempt under CEQA and excluded under NEPA. No further environmental analysis is warranted.

**Signed:**



**Date:** 9-22-2022

Mike Sullivan, Senior Environmental Planner  
County of Riverside

Selected Document

**2025021005 - NOE - County of Riverside Aviation, North and Middle Apron Pavement Rehabilitation, French Valley Airport, Murrieta**

Riverside County  
Created - **2/25/2025** | Submitted - **2/26/2025** | Posted - **2/26/2025** | Received - **2/26/2025** | Published - **2/26/2025**  
**Naomy Sicra**



**Document Details****Public Agency**

Riverside County

**Document Type**

Notice of Exemption

**Document Status**

Published

**Title**

County of Riverside Aviation, North and Middle Apron Pavement Rehabilitation, French Valley Airport, Murrieta

**Document Description**

On February 25, 2020, The Board of Supervisors approved the five-year design and engineering services agreement with C&S Companies for airport engineering, architectural, planning, and environmental services which includes design, construction administration, construction inspection of projects, planning and environmental services for the County's five airports. The attached work order is for design services for the French Valley Airport North and Middle Apron Pavement Rehabilitation Project (Project). The purpose of this project is to design the North and Middle Apron areas currently exhibiting weathering and block transverse alligator cracking. The Middle Apron will be fully reconstructed, while the North Apron will receive rehabilitation by slurry sealing, crack filling, and pavement patches. No grading of shoulders or improvements outside of the existing pavement limits is anticipated, and no drainage improvements or BMP development is anticipated. The services to be provided by the Consultant shall include civil and geotechnical engineering services, as applicable, required to accomplish the design of this project. The North and Middle Apron Pavement Rehabilitation Project is consistent with the Airport's Capital Improvement Program Master Plan. C&S Companies was selected by Request for Qualification as the County's Airport Project Consultant, per the Federal Aviation Administration's (FAA) five-year consultant selection criteria. The pavement rehabilitation to the north

## **ADVERTISEMENT**

### **NOTICE TO BIDDERS**

**NOTICE IS HEREBY GIVEN THAT THE COUNTY OF RIVERSIDE ("OWNER")  
INVITES SEALED PROPOSALS**

**FOR THE CONSTRUCTION OF  
APRON PAVEMENT REHABILITATION  
AT THE  
FRENCH VALLEY AIRPORT  
MURRIETA, CALIFORNIA**

Sealed proposals for the construction of the Apron Pavement Rehabilitation Contract will be received at the offices of the Clerk of the Board of Supervisors for the County of Riverside, 4080 Lemon Street, First Floor, Riverside California 92501 until 2:00pm on March 20, 2025, local time, and there, at said office, at said time, publicly opened and read aloud.

The proposed project generally includes the reconstruction of the middle apron, crack seal, full depth crack repair, seal coat, and fire hydrant replacement on the north apron, and crack seal and seal coat on the south apron. New pavement markings will be placed on the apron.

On and after March 1, 2025, the Contract Documents (consisting of the Advertisement, the Proposal, the Contract Form, and the Specifications) and the Contract Drawings may be obtained by contacting Michelle Auge of C&S Engineers, Inc. at ([mauge@cscos.com](mailto:mauge@cscos.com)) who will provide you with a OneDrive link to download Contract Documents and Contract Drawings. Your company will also be recorded on the plan holders list. Submitted proposals that were not recorded on the plan holders list shall be considered non-responsive.

Each proposal must be accompanied by a certified check or bid bond, in the amount of five percent (5%) of the total maximum proposal price (combination of base bid or alternate bid plus add-on items) for the contract in the form and subject to the conditions provided in the Preparation of Proposal.

Every request concerning this project must be made in writing or email addressed to Michelle Auge ([mauge@cscos.com](mailto:mauge@cscos.com)) at C&S Engineers, Inc., located at 2355 Northside Drive., Suite 350, San Diego, CA 92108, and to be given consideration must be received at the above address at least ten (10) calendar days prior to the date fixed for opening of bids. Any supplemental instructions will be in the form of written addenda, which, when issued, will be sent and or posted 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.

A non-mandatory pre-bid conference has been scheduled in order to review the specific requirements of this contract. All prospective bidders are encouraged to attend. The pre-bid conference is scheduled for March 11, 2025 at 11:00am outside of the Terminal building, 37600 Sky Canyon Drive, Murrieta, CA 92563.

Pursuant to labor Code section 1771.1, any contractor bidding, or subcontractor to be listed on a bid proposal subject to Public Contract Code section 4104, shall not be qualified to bid after March 1, 2015, unless currently registered and qualified to perform public works pursuant to Labor Code section 1725.5. No Contractor or subcontractor may enter into a contract (after April 1, 2015) without proof of current registration to perform public works. The Bidder receiving the Award by the County is required to



comply with the provisions of the California Labor Code, including, without limitation, Sections 1771.4, 1773.1, 1774, 1775 and 1776 of the California Labor Code and including, without limitation, the obligations to pay the general prevailing rates of wages in the locality in which the Work is to be performed and comply with Section 1777.5 of the California Labor Code governing employment of apprentices. Copies of the prevailing rates of per diem wages are on file at California State Department of Industrial Relations, 464 West Fourth St., Suite 348, San Bernardino, CA 92401, and are available to any interested party on request.

THIS IS A PUBLIC WORKS PROJECT AND IS SUBJECT TO COMPLIANCE MONITORING AND ENFORCEMENT BY THE DEPARTMENT OF INDUSTRIAL RELATIONS. The awarded prime contractor shall post job site notices as prescribed by regulation starting January 1, 2015. Contractor or subcontractor shall furnish records specified in Labor Code section 1776 to the Labor Commissioner.

Substitution of securities for any moneys withheld by the County shall be permitted as provided for by Section 22300 of the California Public Contract Code.

The bidder receiving the Award by the County is required both at the time Bidder submits its Bid and other Bid Submittals and at the time of Award, to: (a) hold a contracting license, active and in good standing, issued by the Contractors State License Board for the State of California for the following license classification(s): Class "A" California Contractor's License.

The Owner reserves the right to waive any informality in the proposal, and to reject any and all proposals.

For information contact the Aviation Division office for this project:  
4080 Lemon Street 14<sup>th</sup> Floor  
Riverside, CA 92501

END OF ADVERTISEMENT



**SPECIFICATIONS AND CONTRACT DOCUMENTS  
FOR THE CONSTRUCTION OF  
APRON PAVEMENT REHABILITATION**

**FRENCH VALLEY AIRPORT  
RIVERSIDE COUNTY  
MURRIETA, CALIFORNIA**

**FAA AIP PROJECT NO. 3-06-0338-034-2022 (DESIGN)**

**ISSUED FOR BID**



**OCTOBER 2024**

FORM APPROVED COUNTY COUNSEL  
BY   
DANIELLE D. MALAND



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- Debarment & Suspension Certification
- Lobbying and Influencing Federal Employees
- Certification of Offeror/Bidder Regarding Tax Delinquency and Felony Convictions
- Trade Restriction Certification

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- 
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## **ADVERTISEMENT**

### **NOTICE TO BIDDERS**

#### **NOTICE IS HEREBY GIVEN THAT THE COUNTY OF RIVERSIDE (“OWNER”) INVITES SEALED PROPOSALS**

#### **FOR THE CONSTRUCTION OF APRON PAVEMENT REHABILITATION AT THE FRENCH VALLEY AIRPORT MURRIETA, CALIFORNIA**

Sealed proposals for the construction of the Apron Pavement Rehabilitation Contract will be received at the offices of the Clerk of the Board of Supervisors for the County of Riverside, 4080 Lemon Street, First Floor, Riverside California 92501 until 2:00pm on March 20, 2025, local time, and there, at said office, at said time, publicly opened and read aloud.

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On and after March 1, 2025, the Contract Documents (consisting of the Advertisement, the Proposal, the Contract Form, and the Specifications) and the Contract Drawings may be obtained by contacting Michelle Auge of C&S Engineers, Inc. at ([mauge@cscos.com](mailto:mauge@cscos.com)) who will provide you with a OneDrive link to download Contract Documents and Contract Drawings. Your company will also be recorded on the plan holders list. Submitted proposals that were not recorded on the plan holders list shall be considered non-responsive.

Each proposal must be accompanied by a certified check or bid bond, in the amount of five percent (5%) of the total maximum proposal price (combination of base bid or alternate bid plus add-on items) for the contract in the form and subject to the conditions provided in the Preparation of Proposal.

Every request concerning this project must be made in writing or email addressed to Michelle Auge ([mauge@cscos.com](mailto:mauge@cscos.com)) at C&S Engineers, Inc., located at 2355 Northside Drive., Suite 350, San Diego, CA 92108, and to be given consideration must be received at the above address at least ten (10) calendar days prior to the date fixed for opening of bids. Any supplemental instructions will be in the form of written addenda, which, when issued, will be sent and or posted 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.

A non-mandatory pre-bid conference has been scheduled in order to review the specific requirements of this contract. All prospective bidders are encouraged to attend. The pre-bid conference is scheduled for March 11, 2025 at 11:00am outside of the Terminal building, 37600 Sky Canyon Drive, Murrieta, CA 92563.

Pursuant to labor Code section 1771.1, any contractor bidding, or subcontractor to be listed on a bid proposal subject to Public Contract Code section 4104, shall not be qualified to bid after March 1, 2015, unless currently registered and qualified to perform public works pursuant to Labor Code section 1725.5. No Contractor or subcontractor may enter into a contract (after April 1, 2015) without proof of current registration to perform public works. The Bidder receiving the Award by the County is required to

comply with the provisions of the California Labor Code, including, without limitation, Sections 1771.4, 1773.1, 1774, 1775 and 1776 of the California Labor Code and including, without limitation, the obligations to pay the general prevailing rates of wages in the locality in which the Work is to be performed and comply with Section 1777.5 of the California Labor Code governing employment of apprentices. Copies of the prevailing rates of per diem wages are on file at California State Department of Industrial Relations, 464 West Fourth St., Suite 348, San Bernardino, CA 92401, and are available to any interested party on request.

**THIS IS A PUBLIC WORKS PROJECT AND IS SUBJECT TO COMPLIANCE MONITORING AND ENFORCEMENT BY THE DEPARTMENT OF INDUSTRIAL RELATIONS.** The awarded prime contractor shall post job site notices as prescribed by regulation starting January 1, 2015. Contractor or subcontractor shall furnish records specified in Labor Code section 1776 to the Labor Commissioner.

Substitution of securities for any moneys withheld by the County shall be permitted as provided for by Section 22300 of the California Public Contract Code.

The bidder receiving the Award by the County is required both at the time Bidder submits its Bid and other Bid Submittals and at the time of Award, to: (a) hold a contracting license, active and in good standing, issued by the Contractors State License Board for the State of California for the following license classification(s): Class "A" California Contractor's License.

The Owner reserves the right to waive any informality in the proposal, and to reject any and all proposals.

For information contact the Aviation Division office for this project:  
4080 Lemon Street 14<sup>th</sup> Floor  
Riverside, CA 92501

**END OF ADVERTISEMENT**



**INSTRUCTIONS TO BIDDERS**  
**FOR THE CONSTRUCTION OF**  
**APRON PAVEMENT REHABILITATION**  
**AT**  
**FRENCH VALLEY AIRPORT**

**1. AVAILABILITY OF CONTRACT DOCUMENTS**

On and after March 1, 2025, the Contract Documents (consisting of the Advertisement, the Proposal, the Contract Form, and the Specifications) and the Contract Drawings may be obtained by contacting Michelle Auge of C&S Engineers, Inc. at ([mauge@cscos.com](mailto:mauge@cscos.com)) who will provide you with a OneDrive link to download Contract Documents and Contract Drawings.

Please Note: Prospective bidders will also be recorded on the plan holders list. Submitted proposals that were not recorded on the plan holders list shall be considered non-responsive.

**2. EXAMINATION OF CONTRACT DOCUMENTS**

Bidders shall be solely responsible for examining the Project Site and the Contract Documents, including any Addenda issued during the bidding period, and for informing itself with respect to local labor availability, means of transportation, necessity for security, laws and codes, local permit requirements, wage scales, local tax structure, contractors' licensing requirements, availability of required insurance, and other factors that could affect the Work. Bidders are responsible for consulting the standards referenced in the Contract. Failure of Bidder to so examine and inform itself shall be at its sole risk, and no relief for error or omission will be given except as required under State law.

**3. INTERPRETATION OF CONTRACT DOCUMENTS**

Discrepancies in, and/or omissions from the Plans, Specifications or other Contract Documents or questions as to their meaning shall be immediately brought to the attention of the County of Riverside and Michelle Auge of C&S Engineers by submission of a written request for an interpretation or correction to the County of Riverside and the Construction Manager. Such submission, if any, must be sent to Michelle Auge of C&S Engineers, Inc. at ([mauge@cscos.com](mailto:mauge@cscos.com)).

Any interpretation of the Contract Documents will be made only by written addenda. The Owner will not be responsible for any explanations or interpretations provided in any other manner. No person is authorized to make any oral interpretation of any provision in the Contract Documents to any bidder, and no bidder should rely on any such oral interpretation. Bids shall include complete compensation for all items that are noted in the Contract Documents as the responsibility of the Contractor.

#### 4. **ORDER OF PRECEDENCE**

The Contract Documents are intended to be fully cooperative and to be complementary. In case of conflicts between the Contract Documents, the order of precedence shall be as follows:

1. Applicable Laws (provided, however, below where the Contract Documents or manufacturer's recommendations or specifications require standards higher than those of Applicable Laws, the Contract Documents or manufacturer's recommendations or specifications shall control);
2. Change Orders, Unilateral Change Orders and Construction Change Directives;
3. Addenda
4. Construction Contract
5. Special Conditions
6. Special Provisions
7. General Contract Provisions
8. Technical Specifications
9. Contract Drawings
  - a. Figures govern over scaled dimensions
  - b. Detail drawings govern over general drawings
  - c. Addenda or Change Order drawings govern over Contract Drawings
  - d. Contract Drawings govern over Standard Drawings
  - e. Contract Drawings govern over Shop Drawings
10. Standard and reference specifications which include industry norms, such as, but not limited to, ANSI and ASTM; and
11. Standard Plans
12. Reference Documents

As described above, these order of precedence shall take precedence over those stated in Section 50-03 in the event of conflict.

#### 5. **INSPECTION OF SITE; PRE-BID CONFERENCE AND SITE WALK**

Each prospective bidder is responsible for fully acquainting itself with the conditions of the Project site (which may include more than one site), as well as those relating to the construction and labor of the Project, to fully understand the facilities, difficulties and restrictions which may impact the cost or effort required to complete the Project. To this end, a pre-bid conference has been scheduled in order to review the specific requirements of this contract. **Attendance at the pre-bid conference is non-mandatory for prospective bidders.** The pre-bid conference is scheduled for March 11, 2025 at 11:00am outside of the Terminal building, 37600 Sky Canyon Drive, Murrieta, CA 92563.

#### 6. **ADDENDA**

The County of Riverside reserves the right to revise the Contract Documents prior to the bid opening date. Revisions, if any, shall be made by written addenda. All addenda issued by the County of Riverside shall be included in the bid and made part of the Contract Documents. Pursuant to Public Contract Code Section 4104.5, if the County of Riverside issues an addendum which includes material changes to the Project less than 72 hours prior to the deadline for submission of bids, the County of Riverside will extend the deadline for submission of bids. The County of Riverside may determine, in its sole discretion, whether an addendum warrants postponement of the bid submission

date. Each prospective bidder shall provide the County of Riverside a name, address and facsimile number to which addenda may be sent, as well as a telephone number by which the County of Riverside can contact the bidder. Copies of addenda may be obtained by contacting Michelle Auge of C&S Engineers, Inc. at ([mauge@cscos.com](mailto:mauge@cscos.com)) who will provide you with a OneDrive link. Please Note: Bidders are responsible for ensuring that they have received any and all addenda. To this end, each bidder should contact Michelle Auge of C&S Engineers, Inc. at ([mauge@cscos.com](mailto:mauge@cscos.com)) to verify that notification of all addenda issued have been received, if any, prior to the bid opening.

**7. LABOR COMPLIANCE**

In accordance with Labor Code section 1773.3, the County of Riverside may be required to provide notice of the award to the Department of Industrial Relations on the Form PWC-100. The Bidder who is awarded the Contract shall submit to the County of Riverside a completed Form PWC-100 including identification of the worker classifications for the Bidder and all listed subcontractors, within three (3) days of the award. Failure to provide a completed Form PWC-100 prior to execution of the Contract may result in forfeiture of the Bidder's Bid deposit or bond to the County of Riverside, and the County of Riverside may award the Contract to the next lowest responsive and responsible Bidder, or may call for new Bids.

**8. AWARD OF CONTRACT**

The lowest qualified bidder will be determined by comparison of the overall total price for the base bid and all alternates.

FRENCH VALLEY AIRPORT

END OF INSTRUCTION TO BIDDERS

**PROPOSAL**  
**FOR THE CONSTRUCTION OF**  
**APRON PAVEMENT REHABILITATION**  
**AT THE**  
**FRENCH VALLEY AIRPORT**  
**MURRIETA, CALIFORNIA**

**TO: COUNTY OF RIVERSIDE**  
**Office of the Clerk of the Board of Supervisors**  
**4080 Lemon Street, First Floor**  
**Riverside, CA 92501**

The undersigned, as bidder, hereby declares that he/she has examined the site of the work and informed himself/herself fully in regard to all conditions pertaining to the place where the work is to be done; that he/she has examined and read the Contract Documents and Contract Drawings for the work and all addenda relative thereto furnished prior to the opening of bids; that he/she has satisfied himself/herself relative to the work to be performed.

The bidder understands that the advertisement, located in the front of these Contract Documents, contains the location and a description of the proposed construction, as well as indicates the place, date, and time of the proposal opening; information about a Pre-Bid conference, if scheduled, is contained in the advertisement; the time in which the work must be completed shall be in accordance with the subsection titled FAILURE TO COMPLETE ON TIME of Section 80. If the bidder considers that the time to complete the work is inadequate, they should not submit a bid.

The bidder understands the quantities for bid items listed on the proposal sheets are estimated quantities only for the purpose of comparing bids; any difference between these estimated quantities and actual quantities required for construction shall not be taken as a basis for claims by the Contractor for extra compensation; compensation will be based upon the unit prices and actual construction quantities.

The bidder understands that the description under each item, being briefly stated, implies, although it does not mention, all incidentals and that the prices stated are intended to cover all such work, materials and incidentals as constitute bidder's obligations as described in the specifications and any details not specifically mentioned, but evidently included in the Contract shall be compensated for in the item which most logically includes it.

The bidder understands that proposal guaranty shall be in the form of a bid bond or certified check in the amount of five percent (5%) of this bid in accordance with the subsection titled Bid Guarantee of Section 20; the proposal guaranty shall become the property of the Owner in the event the Contract and bond(s) are not executed within the time below set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

The bidder agrees this proposal is an irrevocable offer for 120 days as stated in subsection titled Award of Contract of Section 30-02. The bidder agrees that upon receipt of written notice of the acceptance of this proposal, bidder will execute the Contract attached within 15 days and deliver a Surety Bond or Bonds as required by the subsection titled REQUIREMENTS OF CONTRACT BONDS OF Section 30. The bidder further agrees to commence construction with an adequate work force, plant and equipment on the date stated in the written notice to proceed and will progress therewith to its completion within the time stated, and in accordance with this Contract and Specification.



FRENCH VALLEY AIRPORT						
APRON PAVEMENT REHABILITATION						
BIDDERS ARE REQUIRED TO COMPLETE ALL FIELDS SHADED. ALL OTHER FIELDS WILL BE AUTOMATICALLY CALCULATED. AN EXCEL FILE WILL BE PROVIDED AND THESE SHEETS CAN BE FILLED OUT IN EXCEL OR HARD COPY. ONLY HARD COPIES SHALL BE RETURNED WITH YOUR PROPOSAL.						
ITEM NO	SPEC	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
BASE BID						
1	C-102	TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION, AND SILTATION CONTROL	1	LS		
2	C-102	DEVELOPMENT AND COMPLIANCE OF SWPPP	1	LS		
3	C-105	MOBILIZATION	1	LS		
4	C-105	FIELD OFFICE	1	LS		
5	C-105	ALLOWANCE FOR FIELD OFFICE EQUIPMENT	1	AL		
6	C-106	SAFETY, SECURITY AND MAINTENANCE OF TRAFFIC	1	LS		
7	L-126	AIRCRAFT TIE-DOWNS	276	EA		
8	L-126	AIRCRAFT TIE-DOWN CABLE	1,500	LF		
9	L-126	AIRCRAFT TIE-DOWN SETUP	24	EA		
10	P-101	PAVEMENT REMOVAL	46,000	SY		
11	P-152	UNCLASSIFIED EXCAVATION	8,200	CY		
12	P-156	OPERATION/TREATMENT FOR CEMENT TREATED SUBGRADE	46,000	SY		
13	P-156	CEMENT FOR CEMENT TREATED SUBGRADE	860	TON		
14	P-209	CRUSHED AGGREGATE BASE COURSE	7,665	CY		
15	P-401	ASPHALT SURFACE COURSE, GRADATION 2	10,690	TON		
16	P-603	EMULSIFIED ASPHALT TACK COAT	1,380	GAL		

FRENCH VALLEY AIRPORT						
APRON PAVEMENT REHABILITATION						
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ITEM NO	SPEC	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
17	P-605	JOINT SEALANT FOR PAVEMENT	570	LF		
18	P-608	EMULSIFIED ASPHALT SEAL COAT	300	SY		
19	P-620	INTERIM MARKINGS (NON-REFLECTORIZED)	7990	SF		
20	P-620	PERMANENT MARKING WITHOUT REFLECTIVE BEADS, BLACK, WHITE, OR YELLOW	6660	SF		
21	P-620	PERMANENT MARKING WITH REFLECTIVE BEADS, YELLOW	2450	SF		
22	P-623	EMULSIFIED ASPHALT SPRAY SEAL COAT	45700	SY		
TOTAL BASE BID CONTRACT						

FRENCH VALLEY AIRPORT						
APRON PAVEMENT REHABILITATION						
BIDDERS ARE REQUIRED TO COMPLETE ALL FIELDS SHADED. ALL OTHER FIELDS WILL BE AUTOMATICALLY CALCULATED. AN EXCEL FILE WILL BE PROVIDED AND THESE SHEETS CAN BE FILLED OUT IN EXCEL OR HARD COPY. ONLY HARD COPIES SHALL BE RETURNED WITH YOUR PROPOSAL.						
ITEM NO	SPEC	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
BID ALTERNATE NO. 1						
1	C-102	TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION, AND SILTATION CONTROL	1	LS		
2	C-102	DEVELOPMENT AND COMPLIANCE OF SWPPP	1	LS		
3	C-105	MOBILIZATION	1	LS		
4	C-106	SAFETY, SECURITY AND MAINTENANCE OF TRAFFIC	1	LS		
5	P-101	JOINT AND CRACK SEAL	29600	LF		
6	P-101	FULL DEPTH JOINT AND CRACK REPAIR	7100	SF		
7	P-101	PAVEMENT REMOVAL	1,440	SY		
8	P-152	UNCLASSIFIED EXCAVATION	320	CY		
9	P-154	GEOGRID	1440	SY		
10	P-209	CRUSHED AGGREGATE BASE COURSE	240	CY		
11	P-401	ASPHALT SURFACE COURSE, GRADATION 2	335	TON		
12	P-603	EMULSIFIED ASPHALT TACK COAT	45	GAL		
13	P-605	JOINT SEALANT FOR PAVEMENT	470	LF		
14	P-608	EMULSIFIED ASPHALT SEAL COAT	4700	SY		
15	P-620	OBLITERATION OF EXISTING MARKING	4060	SF		
16	P-620	PERMANENT MARKING WITHOUT REFLECTIVE BEADS, BLACK, WHITE, OR YELLOW	6290	SF		

FRENCH VALLEY AIRPORT						
APRON PAVEMENT REHABILITATION						
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ITEM NO	SPEC	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
17	P-620	PERMANENT MARKING WITHOUT REFLECTIVE BEADS, YELLOW	1960	SF		
18	P-623	EMULSIFIED ASPHALT SPRAY SEAL COAT	1440	SY		
TOTAL BID ALTERNATE NO. 1 CONTRACT						



FRENCH VALLEY AIRPORT						
APRON PAVEMENT REHABILITATION						
BIDDERS ARE REQUIRED TO COMPLETE ALL FIELDS SHADED. ALL OTHER FIELDS WILL BE AUTOMATICALLY CALCULATED. AN EXCEL FILE WILL BE PROVIDED AND THESE SHEETS CAN BE FILLED OUT IN EXCEL OR HARD COPY. ONLY HARD COPIES SHALL BE RETURNED WITH YOUR PROPOSAL.						
ITEM NO	SPEC	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
BID ALTERNATE NO. 2						
1	C-102	TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION, AND SILTATION CONTROL	1	LS		
2	C-102	DEVELOPMENT AND COMPLIANCE OF SWPPP	1	LS		
3	C-105	MOBILIZATION	1	LS		
4	C-106	SAFETY, SECURITY AND MAINTENANCE OF TRAFFIC	1	LS		
5	P-101	JOINT AND CRACK SEAL	5000	LF		
6	P-608	EMULSIFIED ASPHALT SEAL COAT	27405	SY		
7	P-620	OBLITERATION OF EXISTING MARKING	3055	SF		
8	P-620	PERMANENT MARKING WITHOUT REFLECTIVE BEADS, BLACK, WHITE, OR YELLOW	5250	SF		
9	P-620	PERMANENT MARKING WITHOUT REFLECTIVE BEADS, YELLOW	1990	SF		
TOTAL BID ALTERNATE NO. 2 CONTRACT						

FRENCH VALLEY AIRPORT						
APRON PAVEMENT REHABILITATION						
BIDDERS ARE REQUIRED TO COMPLETE ALL FIELDS SHADED. ALL OTHER FIELDS WILL BE AUTOMATICALLY CALCULATED. AN EXCEL FILE WILL BE PROVIDED AND THESE SHEETS CAN BE FILLED OUT IN EXCEL OR HARD COPY. ONLY HARD COPIES SHALL BE RETURNED WITH YOUR PROPOSAL.						
ITEM NO	SPEC	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
BID ALTERNATE NO. 3						
1	C-102	TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION, AND SILTATION CONTROL	1	LS		
2	C-102	DEVELOPMENT AND COMPLIANCE OF SWPPP	1	LS		
3	C-105	MOBILIZATION	1	LS		
4	C-106	SAFETY, SECURITY AND MAINTENANCE OF TRAFFIC	1	LS		
5	SP-01	WATERLINE DEPTH HYDROVAC POTHOLING	1	LS		
6	SP-02	REMOVE EXISTING FIRE HYDRANT ASSEMBLY AND ASSOCIATED BOLLARDS	2	EA		
7	SP-03	FURNISH AND INSTALL NEW FLUSH MOUNTED FIRE HYDRANT ASSEMBLY	2	EA		
8	SP-04	FURNISH AND CONSTRUCT NEW CONCRETE PAD	2	EA		
TOTAL BID ALTERNATE NO. 3 CONTRACT						
TOTAL BASE BID, BID ALTERNATE NO.1, BID ALTERNATE NO. 2, AND BID ALTERNATE NO.3 CONTRACT						

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The bidder states that this proposal is based upon prevailing wages in Riverside County, California and in no case are wages considered less than those predetermined by the State and Federal Departments of Labor, schedules of which are contained in the Contract Documents.

The bidder proposes and agrees, if this Proposal is accepted, to contract in the form of contract specified with the County of Riverside, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the construction of the Apron Pavement Rehabilitation Project in full and complete accordance with the shown, noted, described and reasonably intended requirements of the Contract Documents and Contract Drawings, to the full and entire satisfaction of the above said Owner, with a definite understanding that no money will be allowed for extra work except as set forth in the attached Contract Documents, for the unit prices listed for each item.

**BIDDER, IF AN INDIVIDUAL:**

**BY:** \_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**COMPANY NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**CONTRACTOR'S LICENSE NUMBER:** \_\_\_\_\_

**LICENSE CLASSIFICATIONS:** \_\_\_\_\_

**EXPIRATION DATE:** \_\_\_\_\_

**DIR NUMBER:** \_\_\_\_\_

**PHONE NO:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

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**BIDDER, IF A PARTNERSHIP (GIVE NAMES AND ADDRESSES OF EACH PARTNER):**

**BY:** \_\_\_\_\_  
(Printed Name & Title)

\_\_\_\_\_  
(Signature)

**COMPANY NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**CONTRACTOR'S LICENSE NUMBER:** \_\_\_\_\_

**LICENSE CLASSIFICATIONS:** \_\_\_\_\_

**EXPIRATION DATE:** \_\_\_\_\_

**DIR NUMBER:** \_\_\_\_\_

**PHONE NO:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**PARTNER'S  
NAME:** \_\_\_\_\_

**PARTNER'S  
NAME:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**PARTNER'S  
NAME:** \_\_\_\_\_

**PARTNER'S  
NAME:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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**BIDDER, IF A CORPORATION OR LLC:**

**BY:** \_\_\_\_\_  
(Printed Name & Title)

\_\_\_\_\_  
(Signature)

**CORPORATION  
OR LLC NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**(SEAL)**

**STATE OF CORPORATION  
OR LLC CHARTER:** \_\_\_\_\_

**CONTRACTOR'S LICENSE NUMBER:** \_\_\_\_\_

**LICENSE CLASSIFICATIONS:** \_\_\_\_\_

**EXPIRATION DATE:** \_\_\_\_\_

**DIR NUMBER:** \_\_\_\_\_

**PHONE NO:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**PRESIDENT'S  
NAME:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

**SECRETARY'S  
NAME:** \_\_\_\_\_

**TREASURER'S  
NAME:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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## **ATTACHMENTS TO PROPOSAL**

BIDDER and his/her surety, where appropriate, have completed and executed the attached documents which are identified below.

Bidders Questionnaire and Statements, California Public Contract Code Section 10162

Non-Collusion Declaration, Title 23 United States Code Section 112 and California Public Contract Code Section 7106

Buy American Certification

Certifications:

- Certification of Non-Segregated Facilities
- Debarment & Suspension Certification
- Lobbying and Influencing Federal Employees
- Certification of Offeror/Bidder Regarding Tax Delinquency and Felony Convictions
- Trade Restriction

Bidder's Statement of Previous Contracts Subject to EEO Clause as Described in:

- Special Provisions to the General Provisions, Section SP 70-23, subsection A-16

Certification for Receipt of Addenda

Statement of Surety's Intent

Contractor's Storm Water Pollution Prevention Plan Certification

Iran Contracting Act Certification

List of Subcontractors and Professional Services Providers

Disadvantaged Business Enterprise (DBE) Statement

Bidder's List Collection Form (Bidder's Information)

Bidder's List Collection Form (Subcontractor's Information)

Contractor's DBE Plan

DBE Letter of Intent Form

Safety Plan Compliance Document (SPCD) Certification

Bid Bond Form

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## **BIDDER'S QUESTIONNAIRE AND STATEMENTS**

### **California Department of Industrial Relations (DIR) Information**

In accordance with Labor Code section 1773.3, the County of Riverside may be required to provide notice of the award to the Department of Industrial Relations on the Form PWC-100. The Bidder who is awarded the Contract shall submit to the County of Riverside a completed Form PWC-100 including identification of the worker classifications for the Bidder and all listed subcontractors, within three (3) days of the award. Failure to provide a completed Form PWC-100 prior to execution of the Contract may result in forfeiture of the Bidder's Bid deposit or bond to the County of Riverside, and the County of Riverside may award the Contract to the next lowest responsive and responsible Bidder, or may call for new Bids.

The Contractor shall have an affirmative obligation to verify that all subcontractors are currently and validly registered with the Department of Industrial Relations and shall not permit a subcontractor of any tier to perform work on the project without first verifying the subcontractor's registration. The Contractor shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain valid registration for the duration of the project.

Bidder's DIR Registration Number: \_\_\_\_\_

### **California Public Contract Code Section 10162**

All prospective bidders, under penalty of perjury, shall complete the following questionnaire. Has such prospective bidder, any officer of such bidder, or any employee of such bidder who has a proprietary interest in such bidder, has ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

YES \_\_\_\_\_

NO \_\_\_\_\_

If so, explain the circumstances in the space below.

A bid may be rejected on the basis of a bidder, any officer of such bidder, or any employee of such bidder who has a proprietary interest in such bidder, having been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local project because of a violation of law or a safety regulation.

### **California Public Contract Code Section 10232**

In accordance with Public Contract Code Section 10232, the prospective bidder, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the bidder within the immediately preceding two year period because of the bidder's failure to comply with an order of a federal court which orders the bidder to comply with an order



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of the National Labor Relations Board. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement.

**California Public Contract Code Section 10285.1**

In accordance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder (has \_\_\_\_)  
(has not \_\_\_\_)  
been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

Note: The bidder must place a check mark after "has" or "has not" in one of the blank spaces provided. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement.

**(This form must be completed and submitted with the Proposal.)**

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**NON-COLLUSION DECLARATION**  
**Title 23 United States Code Section 112 and California Public Contract Code Section 7106**

The undersigned declares:

I am the \_\_\_\_\_ of \_\_\_\_\_, the party making the foregoing bid.

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 non-collusion declaration, in accordance with California Public Contract Code Sections 7106, is true and correct and that this declaration is executed on \_\_\_\_\_ [date], at \_\_\_\_\_ [city], \_\_\_\_\_ [state].

Affix Seal if Principal  
is Corporation

BIDDER: \_\_\_\_\_  
SIGNATURE: \_\_\_\_\_  
PRINT NAME & TITLE \_\_\_\_\_

**Signature hereto must be notarized. See Notary Form below.**

**(This form must be completed and submitted with the Proposal.)**

## ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of \_\_\_\_\_)

On \_\_\_\_\_ before me, \_\_\_\_\_  
(insert name and title of the officer)

personally appeared \_\_\_\_\_,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.

Signature \_\_\_\_\_ (Seal)

Clear Form

Print Form

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## BUY AMERICAN CERTIFICATION

The Contractor agrees to comply with 49 USC § 50101, which provides that Federal funds may not be obligated unless all steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

A bidder or offeror must complete and submit the Buy America certification included herein with their bid or offer. The Owner will reject as nonresponsive any bid or offer that does not include a completed Certificate of Buy American Compliance.

### **Certificate of Buy American Compliance for Manufactured Products**

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with their proposal. The bidder or offeror must indicate how they intend to comply with 49 USC § 50101 by selecting one on the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (not both) by inserting a checkmark (✓) or the letter “X”.

- ☐ Bidder or offeror hereby certifies that it will comply with 49 USC § 50101 by:
- Only installing steel and manufactured products produced in the United States, or;
  - Installing manufactured products for which the FAA has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing, or;
  - Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

- To provide to the Owner evidence that documents the source and origin of the steel and manufactured product.
- To faithfully comply with providing US domestic product
- To furnish US domestic product for any waiver request that the FAA rejects
- To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

- ☐ The bidder or offeror hereby certifies it cannot comply with the 100% Buy American Preferences of 49 USC § 50101(a) but may qualify for either a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:

- To submit to the Owner within 15 calendar days of the bid opening, a formal waiver request and required documentation that support the type of waiver being requested.
- That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination may result in rejection of the proposal.
- To faithfully comply with providing US domestic products at or above the approved US domestic content percentage as approved by the FAA.
- To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

### **Required Documentation**

**Type 3 Waiver** - The cost of the item components and subcomponents produced in the United States is more that 60% of the cost of all components and subcomponents of the “item”. The required documentation for a Type 3 Waiver is:

- Listing of all product components and subcomponents that are not comprised of 100% US domestic content (Excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety).

- 
- b) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly at place of manufacture.
  - c) Percentage of non-domestic component and subcomponent cost as compared to total “item” component and subcomponent costs, excluding labor costs associated with final assembly at place of manufacture.

**Type 4 Waiver** – Total cost of project using US domestic source product exceeds the total project cost using non-domestic product by 25%. The required documentation for a Type 4 Waiver is:

- a) Detailed cost information for total project using US domestic product
- b) Detailed cost information for total project using non-domestic product

**False Statements:** Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Title

**(Buy American form(s) must be completed and submitted with the Proposal.)**

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## CERTIFICATIONS

**BIDDER'S NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**TELEPHONE NO.:** \_\_\_\_\_ **FAX NO.** \_\_\_\_\_

**IRS EMPLOYER IDENTIFICATION NUMBER:** \_\_\_\_\_

### NOTICE OF NONSEGREGATED FACILITIES REQUIREMENT

#### Notice to Prospective Federally Assisted Construction Contractors

1. A Certification of Non-segregated Facilities shall be submitted prior to the award of a federally-assisted construction contract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause.
2. Contractors receiving federally-assisted construction contract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of the following notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.
3. The penalty for making false statements in offers is prescribed in 18 U.S.C. § 1001.

#### Notice to Prospective Subcontractors of Requirements for Certification of Non-Segregated Facilities

1. A Certification of Non-segregated Facilities shall be submitted prior to the award of a subcontract exceeding \$10,000, which is not exempt from the provisions of the Equal Opportunity Clause.
2. Contractors receiving subcontract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of this notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.
3. The penalty for making false statements in offers is prescribed in 18 U.S.C. § 1001.

\* \* \* \* \*

### CERTIFICATION OF NON-SEGREGATED FACILITIES

The federally-assisted construction contractor certifies that she or he does not maintain or provide, for his employees, any segregated facilities at any of his establishments and that she or he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally-assisted construction contractor certifies that she or he will not maintain or provide, for his employees, segregated facilities at any of his establishments and that she or he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The federally-assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms, and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and

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housing facilities provided for employees which are segregated by explicit directives or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason. The federally-assisted construction contractor agrees that (except where she or he has obtained identical certifications from proposed subcontractors for specific time periods) she or he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that she or he will retain such certifications in his files.

\* \* \* \* \*

#### **CERTIFICATION OF OFFEROR/BIDDER REGARDING DEBARMENT**

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

Contractor certifies that Contractor is not identified on a list created pursuant to subdivision (b) of Section 2203 of the Public Contract Code as a person engaging in investment activities in Iran described in subdivision (a) of Section 2202.5 of the Public Contract Code, or as a person described in subdivision (b) of Section 2202.5 of the Public Contract Code, as applicable. Such certification information shall be submitted to the Department of General Services by Owner. Such certification is not required if Contractor has been permitted to submit a bid or proposal to Owner pursuant to subdivision (c) or (d) of Section 2203 of the Public Contract Code.

#### **CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT**

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a “covered transaction”, must verify each lower tier participant of a “covered transaction” under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>
2. Collecting a certification statement similar to the Certificate Regarding Debarment and Suspension (Bidder or Offeror), above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract

If the FAA later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

\* \* \* \* \*

#### **CERTIFICATION REGARDING LOBBYING**

The bidder or offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member

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of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

\* \* \* \* \*

#### **CERTIFICATION OF OFFERER/BIDDER REGARDING TAX DELINQUENCY AND FELONY CONVICTIONS**

The Contractor must complete the following two certification statements. The Contractor must indicate its current status as it relates to tax delinquency and felony conviction by inserting a checkmark or "X" in the space following the applicable response. The Contractor agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

#### **Certifications:**

- 1) The Contractor represents that it is (\_\_\_) is not (\_\_\_) a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.
- 2) The Contractor represents that it is (\_\_\_) is not (\_\_\_) a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

#### **Note:**

If a Contractor responds in the affirmative to either of the above representations, the Contractor is ineligible to receive an award unless the sponsor has received notification from the agency suspension and debarment official (SDO) that the SDO has considered suspension or debarment and determined that further action is not required to protect the Government's interests. The Contractor therefore must provide information to the owner about its tax liability or conviction to the Owner, who will then notify the FAA Airports District Office, which will then notify the agency's SDO to facilitate completion of the required considerations before award decisions are made.



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## Term Definitions

**Felony conviction:** Felony conviction means a conviction within the preceding twenty four (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 U.S.C. § 3559.

**Tax Delinquency:** A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

\* \* \* \* \*

## TRADE RESTRICTION CERTIFICATION

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror -

- a. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (U.S.T.R.);
- b. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the U.S.T.R.; and
- c. has not entered into any subcontract for any product to be used on the Federal on the project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to an Offeror or subcontractor:

- (1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R. or
- (2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such U.S.T.R. list or

- 
- (3) who incorporates in the public works project any product of a foreign country on such U.S.T.R. list;

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by U.S.T.R, unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

Printed Name & Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**(These certifications must be completed and submitted with the Proposal.)**

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**BIDDER'S STATEMENT OF PREVIOUS CONTRACTS SUBJECT TO EEO CLAUSE  
AS DESCRIBED IN SPECIAL PROVISIONS TO THE GENERAL PROVISIONS,  
SECTION SP 70-23, SUBSECTION A-16**

The Bidder shall complete the following statement by checking the appropriate boxes.

The Bidder has \_\_\_\_ has not \_\_\_\_ participated in a previous contract subject to the Equal Opportunity Clause prescribed by Executive Order 11246, as amended, of September 24, 1965.

The Bidder has \_\_\_\_ has not \_\_\_\_ submitted all compliance reports in connection with any such contract due under the applicable filing requirements; and that representations indicating submission of required compliance reports signed by proposed subcontractors will be obtained prior to award of subcontracts.

If the Bidder has participated in a previous contract subject to the Equal Opportunity Clause and has not submitted compliance reports due under applicable filing requirements, the Bidder shall submit a compliance report on Standard Form 100, "Employee Information Report EEO-1", attached to this proposal.

**CERTIFICATION FOR RECEIPT OF ADDENDA**

Receipt of the following Addenda is acknowledged:

ADDENDUM NO.: \_\_\_\_\_

DATED: \_\_\_\_\_

ADDENDUM NO.: \_\_\_\_\_

DATED: \_\_\_\_\_

ADDENDUM NO.: \_\_\_\_\_

DATED: \_\_\_\_\_

\_\_\_\_\_  
(Firm or Corporation Making Bid)

\_\_\_\_\_  
(Signature of Authorized Person)

P.O. Address: \_\_\_\_\_

Dated: \_\_\_\_\_

**(This form must be completed and submitted with the Proposal.)**

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**STATEMENT OF SURETY'S INTENT**

TO: County of Riverside

We have reviewed the bid of \_\_\_\_\_  
(Contractor)

of \_\_\_\_\_  
(Address)

for the Apron Pavement Rehabilitation Project,

project for which bids will be received on: March 20, 2025  
(Bid Opening Date)

and wish to advise that should this Bid of the Contractor be accepted and the Contract awarded to him, it is our present intention to become surety on the performance bond and labor and material bond required by the Contract.

Any arrangement for the bonds required by the Contract is a matter between the Contractor and ourselves and we assure no liability to you or third parties if for any reason we do not execute the requisite bonds.

We are duly authorized to do business in the State of California.

ATTEST: \_\_\_\_\_

\_\_\_\_\_  
Surety's Authorized Signature(s)

(Corporate seal, if any. If no seal, write "No Seal" across this place and sign.)

**ATTACH PROPOSAL GUARANTEE**

**ATTACH POWER OF ATTORNEY**

**(This form must be complete and submitted with the Proposal.  
Copies of this form may be filled out and attached to this page.)**

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## CONTRACTOR'S STORM WATER POLLUTION PREVENTION PLAN CERTIFICATION

Airport Name/Location: French Valley Airport, Murrieta, California

Project Name: Apron Pavement Rehabilitation Project

Contractor's Official Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

### Certification Statement:

*"I certify under penalty of law that I understand and agree to comply with the terms and conditions of Item C-102 Temporary Air and Water Pollution, Soil Erosion, and Siltation Control. I further agree that I shall be responsible for furnishing all materials, labor and equipment necessary to comply with all National Pollutant Discharge Elimination System (NPDES) requirements for erosion control during construction including the installation of all construction BMP's and the preparation and filing of a Notice of Intent, Inspection and Maintenance Reports and a Notice of Termination. All work and methods shall comply with the best management practices required by the Federal Aviation Administration (FAA), State of California, the County of Riverside, and any other governing agencies. This work shall include preparing and revising as necessary a comprehensive stormwater pollution prevention plan, including descriptions of proposed measures to be implemented, a schedule detailing the proposed coordination for accomplishing the erosion control features in a timely and appropriate manner, and site-specific diagrams indicating proposed locations where erosion control devices or measures may be required during successive construction stages."*

\_\_\_\_\_  
Printed Name of Bidder

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**(This form must be completed and submitted with the Proposal.)**

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## IRAN CONTRACTING ACT CERTIFICATION

(Public Contract Code Section 2200 et seq.)

As required by California Public Contract Code Section 2204, the Contractor certifies subject to penalty for perjury that the option checked below relating to the Contractor's status in regard to the Iran Contracting Act of 2010 (Public Contract Code Section 2200 et seq.) is true and correct:

- ☐ The Contractor is not:
- (i) identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203; or
  - (ii) a financial institution that extends, for 45 days or more, credit in the amount of \$20,000,000 or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.
- ☐ The Authority has exempted the Contractor from the requirements of the Iran Contracting Act of 2010 after making a public finding that, absent the exemption, Agency will be unable to obtain the goods and/or services to be provided pursuant to the Contract.
- ☐ The amount of the Contract payable to the Contractor for the Work does not exceed \$1,000,000.

Signed \_\_\_\_\_  
Titled \_\_\_\_\_  
Firm \_\_\_\_\_  
Date \_\_\_\_\_

Note: In accordance with Public Contract Code Section 2205, false certification of this form shall be reported to the California Attorney General and may result in civil penalties equal to the greater of \$250,000 or twice the Contract Price, termination of the Contract and/or ineligibility to bid on contracts for three years

**(This form must be completed and submitted with the Proposal.)**

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**LIST OF SUBCONTRACTORS  
AND PROFESSIONAL SERVICES PROVIDERS**

The bidder is required to furnish the following information in accordance with the provisions of Section 4100 to 4113, inclusive, of the Public Contract Code of the State of California. This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No bid will be accepted nor any contract entered into without proof of the Bidder's and its subcontractors' current registration with the Department of Industrial Relations. If awarded a Contract, the Bidder and its subcontractors of every tier shall maintain active registration with the Department of Industrial Relations for the duration of the Project. It shall be the Bidder's sole responsibility to evaluate and include the cost of complying with all labor compliance requirements. ***All entities that will be providing work or services on this project must be included in this list.***

Name Subcontractor is licensed under: \_\_\_\_\_  
License Number: \_\_\_\_\_  
DIR Registration Number: \_\_\_\_\_  
Address of Subcontractor: \_\_\_\_\_  
Percent (%) of Total Contract: \_\_\_\_\_  
Specific Description of Subcontract Work: \_\_\_\_\_

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Name Subcontractor is licensed under: \_\_\_\_\_  
License Number: \_\_\_\_\_  
DIR Registration Number: \_\_\_\_\_  
Address of Subcontractor: \_\_\_\_\_  
Percent (%) of Total Contract: \_\_\_\_\_  
Specific Description of Subcontract Work: \_\_\_\_\_

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Name Subcontractor is licensed under: \_\_\_\_\_  
License Number: \_\_\_\_\_  
DIR Registration Number: \_\_\_\_\_  
Address of Subcontractor: \_\_\_\_\_  
Percent (%) of Total Contract: \_\_\_\_\_  
Specific Description of Subcontract Work: \_\_\_\_\_

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Name Subcontractor is licensed under: \_\_\_\_\_  
License Number: \_\_\_\_\_  
DIR Registration Number: \_\_\_\_\_  
Address of Subcontractor: \_\_\_\_\_  
Percent (%) of Total Contract: \_\_\_\_\_  
Specific Description of Subcontract Work: \_\_\_\_\_

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**(This form must be completed and submitted with the Proposal.  
Copies of this form may be filled out and attached to this page.)**

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## DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATEMENT

The requirements of 49 CFR Part 26, Regulations of the U.S. Department of Transportation, apply to this contract. It is the policy of the Sponsor to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract.

### DISADVANTAGED BUSINESS ENTERPRISE:

The requirements of 49 CFR Part 26, Regulations of the U.S. Department of Transportation, apply to this contract. It is the policy of the Sponsor to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. All firms qualifying under this solicitation are encouraged to submit proposals. Award of this contract will be conditioned upon satisfying the DBE requirements of this contract. These requirements apply to all bidders, including those who qualify as a DBE. A DBE contract goal of 12.5 percent has been established for this contract. The bidder shall make good faith efforts, as defined in Appendix A, 49 CFR Part 26, to meet the contract goal for DBE participation in the performance of this contract. Excerpts from 49 CFR Part 26 are included in Special Provisions to the General Provisions, Section SP 70-23, subsection A12.

As a condition of bid responsiveness, the Bidder or Offeror shall submit with its Proposal the "Contractor's DBE Plan", and "DBE Letter of Intent Forms" from each of the DBE firms the Bidder or Offeror intends to use. If the contract goal is not met, Bidder or Offeror shall include documentation of good faith efforts with its DBE Plan.

The Contractor's DBE Plan Form and DBE Letter Of Intent Form are located in Special Provisions. The website for the Unified Certification Program directory in the state of California is:

[https://dot.ca.gov/hq/bep/find\\_certified](https://dot.ca.gov/hq/bep/find_certified)

**CERTIFICATION OF BIDDER/OFFEROR:** The undersigned Bidder or Offeror will satisfy the DBE requirements of these specifications in the following manner (please check the appropriate space):

\_\_\_\_\_ The Bidder or Offeror is committed to meeting or exceeding the DBE utilization goal stated above on this contract.

\_\_\_\_\_ The Bidder or Offeror, is unable to meet the DBE utilization goal stated above. However, we are committed to a minimum of \_\_\_\_\_% DBE utilization on this contract, and will include documentation demonstrating good faith efforts.

### SMALL BUSINESS PARTICIPATION:

This Contract does not have a Small Business Element (SBE) set-aside.

IRS Number: \_\_\_\_\_

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Signature and Title

**(This form must be completed and submitted with the Proposal.)**



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**BIDDER'S LIST COLLECTION FORM**  
**(Bidder's Information)**

The sponsor is required by CFR Title 49, Subtitle A, Part 26, Subpart A, Section 26.11 to collect the following information from the bidder. As such, it is the responsibility of the bidder to complete the following information as a condition of submitting a proposal for this project. The sponsor will consider incomplete information to be an irregular proposal.

Airport Name: French Valley Airport AIP No. 3-06-0338-034-2022

Project Name: Apron Pavement Rehabilitation Project

**Bidder's Information**

Firm Name	Firm Street Address, City, State, Zip Code, Phone No.	DBE/Non DBE Status	Age of Firm	Annual Gross Receipts
	<hr/>	<input type="checkbox"/> DBE	<input type="checkbox"/> Less than 1 year	<input type="checkbox"/> Less than \$500K
	<hr/>	<input type="checkbox"/> Non-DBE	<input type="checkbox"/> 1-3 years	<input type="checkbox"/> \$500K - \$1M
	<hr/>		<input type="checkbox"/> 4-7 years	<input type="checkbox"/> \$1-\$2M
	<hr/>		<input type="checkbox"/> 8-10 years	<input type="checkbox"/> \$2-\$5M
	<hr/>		<input type="checkbox"/> More than 10 yrs.	<input type="checkbox"/> More than \$5M

**(This form must be completed and submitted with the Proposal.)**

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**BIDDER'S LIST COLLECTION FORM**  
**(Subcontractor's Information)**

The sponsor is required by CFR Title 49, Subtitle A, Part 26, Subpart A, Section 26.11 to collect the following information from each subcontractor submitting a quote, bid or proposal to the bidder. As such, it is the responsibility of the bidder to complete the following information as a condition of submitting a proposal for this project. The sponsor will consider incomplete information to be an irregular proposal.

Please note that the information requested below must be filled out for each quote received by the bidder, regardless of DBE status. For example, if the bidder requests quotes from three contractors for electrical work, the information requested below must be filled out for the three subcontractors. It is important to note that providing the information does not commit the bidder to using any one of the three subcontractors in the work.

Airport Name: French Valley Airport AIP No. 3-06-0338-034-2022

Project Name: Apron Pavement Rehabilitation Project

**Subcontractor's Information**

Firm Name	Firm Street Address, City, State, Zip Code, Phone No.	DBE/Non DBE Status	Age of Firm	Annual Gross Receipts
	<hr/> <hr/> <hr/> <hr/> <hr/>	<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1-3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 yrs.	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-\$2M <input type="checkbox"/> \$2-\$5M <input type="checkbox"/> More than \$5M
	<hr/> <hr/> <hr/> <hr/> <hr/>	<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1-3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 yrs.	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-\$2M <input type="checkbox"/> \$2-\$5M <input type="checkbox"/> More than \$5M
	<hr/> <hr/> <hr/> <hr/> <hr/>	<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1-3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 yrs.	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-\$2M <input type="checkbox"/> \$2-\$5M <input type="checkbox"/> More than \$5M

Firm Name	Firm Street Address, City, State, Zip Code, Phone No.	DBE/Non DBE Status	Age of Firm	Annual Gross Receipts
	_____ _____ _____ _____	<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1-3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 yrs.	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-\$2M <input type="checkbox"/> \$2-\$5M <input type="checkbox"/> More than \$5M
	_____ _____ _____ _____	<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1-3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 yrs.	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-\$2M <input type="checkbox"/> \$2-\$5M <input type="checkbox"/> More than \$5M
	_____ _____ _____ _____	<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1-3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 yrs.	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-\$2M <input type="checkbox"/> \$2-\$5M <input type="checkbox"/> More than \$5M
	_____ _____ _____ _____	<input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1-3 years <input type="checkbox"/> 4-7 years <input type="checkbox"/> 8-10 years <input type="checkbox"/> More than 10 yrs.	<input type="checkbox"/> Less than \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1-\$2M <input type="checkbox"/> \$2-\$5M <input type="checkbox"/> More than \$5M

(Copy this form and submit with your original proposal if more space is needed.)

**(This form must be completed and submitted with the Proposal.)**

## CONTRACTOR'S DBE PLAN

(Submit this form and attach a DBE Letter of Intent Form for each DBE subcontractor, supplier or manufacturer.)

Airport Name: French Valley Airport

Project Name: Apron Pavement Rehabilitation Project

FAA AIP Project No: 3-06-0338-034-2022

Total Awarded Contract Amount: \$

Name of Bidder's Firm: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Printed name of signer: \_\_\_\_\_

Printed title of signer: \_\_\_\_\_

### DBE UTILIZATION SUMMARY

	<u>DBE Contract Amount</u>	<u>DBE Value</u>	<u>Contract %</u>
DBE Prime Contractor	\$_____ x 1.00 =	\$_____	_____%
DBE Subcontractors	\$_____ x 1.00 =	\$_____	_____%
DBE Suppliers *	\$_____ x 0.60 =	\$_____	_____%
DBE Brokers **	\$_____ x 1.00 =	\$_____	_____%
DBE Manufacturers	\$_____ x 1.00 =	\$_____	_____%
Total Proposed DBE Participation ***		\$_____	_____%
Established DBE Goal		\$_____	_____%

\* Applicable only to regular dealers.

\*\* Applicable only to the amount of fees or commissions charged for assistance in the procurement of material and supplies, or fees and transportation charges for delivery of material and supplies.

\*\*\* If the total proposed DBE participation is less than the established DBE goal, bidder must provide written documentation of the good faith efforts as required by 49 CFR Part 26.

### Affirmation:

The undersigned hereby assures that the information included herein is true and correct, and that the DBE firm(s) listed on the attached DBE Letter of Intent Forms have agreed to perform a commercially useful function in the work items noted for each firm. The undersigned further understands that no changes to this plan may be made without prior approval from the Civil Rights Staff of the Federal Aviation Administration.

By: \_\_\_\_\_  
(Signature of Bidder's representative) (Title)

**(This form must be completed and submitted with the Proposal.)**

## DBE LETTER OF INTENT FORM

(Submit one form for each DBE subcontractor, supplier or manufacturer.)

Project Name/Location: French Valley Airport/ Murrieta, California

FAA AIP Project No: 3-06-0338-034-2022

Name of Bidder's Firm: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Name of DBE firm: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Telephone: \_\_\_\_\_

Certifying Agency: \_\_\_\_\_ Expiration Date: \_\_\_\_\_  
(DBE firm shall submit evidence, such as a photocopy, of their certification status)

Classification: ☐ Prime Contractor ☐ Subcontractor ☐ Broker  
☐ Manufacturer ☐ Supplier

Disadvantaged Group (check one):

Black American <input type="checkbox"/>	Hispanic American <input type="checkbox"/>	Native American <input type="checkbox"/>	Subcont. Asian American <input type="checkbox"/>
Male <input type="checkbox"/>	Male <input type="checkbox"/>	Male <input type="checkbox"/>	Male <input type="checkbox"/>
Female <input type="checkbox"/>	Female <input type="checkbox"/>	Female <input type="checkbox"/>	Female <input type="checkbox"/>
Asian Pacific American <input type="checkbox"/>	Non-Minority <input type="checkbox"/>	Other (not of any group listed here) <input type="checkbox"/>	
Male <input type="checkbox"/>	Male <input type="checkbox"/>	Male <input type="checkbox"/>	
Female <input type="checkbox"/>	Female <input type="checkbox"/>	Female <input type="checkbox"/>	

### SUMMARY OF WORK ITEMS

Work Item(s)	Description of Work Item	NAICS	Estimated Quantity	Total Value

The bidder is committed to utilizing the above-named DBE firm for the work described above. The estimated dollar value of this work is \$ \_\_\_\_\_.

### Affirmation:

The above-named DBE firm affirms that it will perform the portion of the contract for the estimated dollar value as stated above.

By: \_\_\_\_\_  
(Signature of DBE firm's representative) (Title)

If the bidder does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.

**(This form must be completed and submitted with the Proposal.)**

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## SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) CERTIFICATION

Project Location: \_\_\_\_\_

Project Name: \_\_\_\_\_

Contractor's Official Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Telephone: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

### **Certification Statement:**

I certify that I have read the Construction Safety and Phasing Plan (CSPP) included in the Contract Documents and if awarded this Contract, I will abide by its requirements as written.

I certify that I have read the Safety Plan Compliance Document (SPCD) included in the Contract Documents and if awarded this Contract, I will abide by its requirements as written;

I certify that I will provide the information required in the SPCD prior to the start of construction work, if awarded this Contract, and that I will provide any additional information requested by the Owner.

\_\_\_\_\_  
Printed Name of Signer

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**(This form must be completed and submitted with the Proposal.)**

Project No. \_\_\_\_\_  
Bond No. \_\_\_\_\_

## **BID BOND**

(Public Work – Public Contract Code Section 20129 (a))

KNOW ALL PERSONS BY THESE PRESENTS THAT:

WHEREAS, The undersigned \_\_\_\_\_ (“Principal”) is herewith submitting to the County of Riverside (“County”) a Bid for the award by County to Principal of a contract (“Contract”) for the following Apron Pavement Rehabilitation Project at the French Valley Airport (“Project”;

AND, WHEREAS, Principal is obligated as a condition of said Bid to submit security pursuant to Public Contract Code Section 20129 (a) in the amount of five percent (5%) of the Base Bid and all Alternates (“Bid Amount”), which security may be in the form of a Bid Bond issued by an admitted surety insurer pursuant to Code of Civil Procedure Section 995.120 (“Admitted Surety”);

NOW THEREFORE, the Principal and \_\_\_\_\_ (“Surety”), an Admitted Surety, are held and firmly bound unto the County in the penal sum of Five Percent (5%) of the Bid Amount for the payment of which sum in lawful money of the United States, well and truly to be made, we, Principal and Surety, bind ourselves, our executors, administrators, successors, heirs and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that if Principal is awarded the Contract upon such Bid and thereafter within the period of time specified in County’s bidding documents governing the bidding process applicable to such Bid (“Bidding Documents”) enters into the Contract with County on the terms and conditions required by the Bidding Documents and furnishes the performance and payment bonds, evidence of insurance and other documents that Principal is required to submit under the terms of the Bidding Documents, then this obligation shall be null and void; otherwise, it shall remain in full force and effect and the sum guaranteed by this bond shall, at the option of County, be forfeited to County to pay all losses and damages suffered by County as a result thereof and permitted by applicable law, including, without limitation, the difference between the Bid Amount and amount for which the County may legally contract with another party to perform the Work (if such latter amount be greater than the Bid Amount), costs of publication, and all other losses and damages suffered by County (including, without limitation, those associated with delay to the Project); provided, however, that Surety’s liability shall not exceed the penal amount of this bond.

Surety, for value received, hereby agrees that no change, extension of time, alteration or addition to the terms of the Contract or the Bidding Documents, or to the work to be performed thereunder, nor any withdrawal of the Bid in a manner not permitted by the requirements of the Bidding Documents shall in any way impair or affect Surety’s obligation under this bond, and Surety does hereby waive notice of any such changes, extensions of time, alterations or additions.

IN WITNESS WHEREOF the undersigned parties have executed this instrument under their several seals this day of \_\_\_\_\_, 20\_\_\_\_, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

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**Affix Seal if Corporation**

\_\_\_\_\_  
**(Firm Name – Principal)**

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
**(Business Address)**

**By** \_\_\_\_\_  
**(Original Signature)**

\_\_\_\_\_  
**(Title)**

\_\_\_\_\_  
**(Corporation Name – Surety)**

**Affix Corporate Seal**

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
**(Business Address)**

**By** \_\_\_\_\_  
**(Original Signature)**  
**ATTORNEY-IN-**  
**FACT**  
\_\_\_\_\_

**Note:** Notary acknowledgment for Principal and Surety’s signatures and Surety’s Power of Attorney must be included or attached



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## CONTRACT FORM (SAMPLE)

**THIS AGREEMENT** is dated as of the \_\_\_\_ day of \_\_\_\_\_ in the year 20\_\_ by and between County of Riverside, a political subdivision of the state of California, having an address at 4080 Lemon Street, First Floor, Riverside, California 92501 (hereinafter called Owner) and \_\_\_\_\_ having an address at \_\_\_\_\_  
(hereinafter called Contractor).

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

### ARTICLE 1 - WORK

Contractor shall perform, construct, and complete all Work as specified and indicated in the Apron Pavement Rehabilitation Specifications and Contract Documents.

### ARTICLE 2 - CONTRACT TIMES

- 2.1 **Contract Time.** The Work shall be substantially complete within the Contract Time as stated in General Provisions Section 80-08 "Failure to Complete on Time", and accepted in accordance with General Provisions Section 50-15 "Final Acceptance". In addition, intermediate stages or sequences of the Work shall be substantially completed and accepted as in accordance with General Provisions Section 80-08.
- 2.2 **Damages for Delay in Completion.** If the Work is uncompleted after the Contract Time, including all extensions and adjustments in accordance with General Provisions Section 80-07 "Determination and Extension of Contract Time", the sum stipulated in General Provisions Section 80-08 "Failure to Complete on Time" will be deducted from any money due or to become due the Contractor or their surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional engineering services that will be incurred by the Owner should the Contractor fail to complete the work in the Contract Time provided in this Contract.

### ARTICLE 3 - CONTRACT PRICE

- 3.1 The Owner will pay Contractor for completion of the Work in accordance with the Specifications and Contract Documents for the Total Bid in the amount of \$\_\_\_\_\_, hereby identified as the Contract Price, as shown in the Contractor's Proposal, with discrepancies corrected in accordance with General Provisions Section 30-01 "Consideration of Proposals" if applicable.
- 3.2 When unit bid price items are included in the Contract Price, the quantities of various units contained in the Proposal are estimated and payment to the Contractor will be made only for the actual quantities of units that are incorporated in the Work or materials furnished in accordance with the plans and specifications, as determined by the Engineer in accordance with General Provisions Section 90, "Measurement and Payment".

### ARTICLE 4 - PAYMENT PROCEDURES

- 4.1 **Partial Payments.** Partial payments will be made at least once per month based on the Engineer's estimate in accordance with General Provisions Section 90, "Measurement and Payment".

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Progress payments will be made in accordance with General Provision Section 90-06, "Partial Payments".

- 4.2 **Retainage.** From the total of the amount determined to be payable on a partial payment, the amount specified in General Provisions Section 90-06, "Partial Payments", will be deducted and retained by the Owner until the final payment is made.
- 4.3 **Final Payment:** Final payment will be made in accordance with General Provisions Section 90-09, "Acceptance and Final Payment".

## **ARTICLE 5 - CONTRACTOR'S REPRESENTATIONS**

In executing this Agreement, Contractor makes the following representations:

- 5.1 Contractor has examined and carefully studied the Specifications and Contract Documents including Addenda.
- 5.2 Contractor has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.
- 5.3 Contractor is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.
- 5.4 Contractor has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) which have been identified in the Specifications and Contract Documents. Contractor acknowledges that such reports and drawings are not part of the Specifications and Contract Documents and may not be complete for Contractor's purposes. Contractor acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Specifications and Contract Documents with respect to Underground Facilities at or contiguous to the site. Contractor does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Specifications and Contract Documents.
- 5.5 Contractor is aware of the general nature of work to be performed by Owner and others at the site that relates to the Work as indicated in the Contract.
- 5.6 Contractor has correlated the information known to Contractor, information and observations obtained from visits to the site, reports and drawings identified in the Contract and all additional examinations, investigations, explorations, tests, studies and data with the Contract.
- 5.7 Contractor has given Design Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Contractor has discovered in the Contract and the written resolution thereof by the Design Engineer is acceptable to Contractor, and the Contract is generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- 5.8 If this Project utilizes multiple prime contracts, the Contractor has examined the Contract for all prime contracts and has acquired sufficient knowledge of the required work of the other prime contractors to the extent that Contractor clearly understands his own obligations and responsibilities

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relative to the other prime contracts.

## **ARTICLE 6 - CONTRACT**

The Contract which comprises the entire Agreement between Owner and Contractor concerning the Work consists of the following:

- 6.1 The Proposal with discrepancies corrected.
- 6.2 This Contract Form.
- 6.3 The Contractor's Performance Bond and Payment Bond.
- 6.4 The Contractor's Certificates of Insurance.
- 6.5 The Notice of Award and Notice to Proceed.
- 6.6 The General Provisions and the Technical Specifications, which are a part of the Contract.
- 6.7 The Contract Drawings as listed in the Table of Contents.
- 6.8 Addenda listed below:

<u>Addendum No.</u>	<u>Date</u>
_____	_____
_____	_____
_____	_____

- 6.9 There are no documents other than those listed above in this Article 6. The Contract may only be modified by Supplement Agreement.

## **ARTICLE 7 – ORDER OF PRECEDENCE**

- 7.1 The Contract Documents are intended to be fully cooperative and to be complementary. In the case of conflicts between the Contract Documents, the order of precedence shall be as follows:
  - 1. Applicable Laws (provided, however, below where the Contract Documents or manufacturer's recommendations or specifications require standards higher than those of Applicable Laws, the Contract Documents or manufacturer's recommendations or specifications shall control);
  - 2. Change Orders, Unilateral Change Orders and Construction Change Directives;
  - 3. Addenda
  - 4. Construction Contract
  - 5. Special Conditions
  - 6. Special Provisions
  - 7. General Contract Provisions
  - 8. Technical Specifications
  - 9. Contract Drawings
    - a. Figures govern over scaled dimensions
    - b. Detail drawings govern over general drawings
    - c. Addenda or Change Order drawings govern over Contract Drawings

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- d. Contract Drawings govern over Standard Drawings
  - e. Contract Drawings govern over Shop Drawings
  - 10. Standard and reference specifications which include industry norms, such as, but not limited to, ANSI and ASTM; and
  - 11. Standard Plans
  - 12. Reference Documents

## ARTICLE 8 – NOTICE PROVISION

Any notice from one party to the other or otherwise under the Contract Documents shall be in writing and shall be dated and signed by the party giving such notice or by a duly authorized representative of such party. Any such notice shall be deemed to have been duly served if served in the following manner, and in accordance with Civil Code §8100 et seq.:

- 8.1 **Notice to Owner.** If notice is given to the Owner: (1) by personal delivery thereof to Owner; or (2) by depositing same in United States mail, enclosed in a sealed envelope addressed to County of Riverside, 4080 Lemon Street, 14<sup>th</sup> Floor, Riverside CA, 92501 , and to such other address as set forth in the Bidding Documents as the location for submission of Bids and sent by registered or certified mail with postage prepaid, or express mail or overnight delivery by an express mail carrier; or (3) by leaving the notice and mailing a copy in the manner provided in Code of Civil Procedure §415.20.
- 8.2 **Notice to Contractor.** If notice is given to Contractor: (1) by personal delivery thereof to Contractor; or (2) by depositing same in United States mails, enclosed in a sealed envelope addressed to Contractor at its address stated in the Construction Contract, or if none is so stated at the address on the records of the Contractor's State License Board and sent by registered or certified mail with postage prepaid or express mail or overnight delivery by an express mail carrier; or (3) by leaving the notice and mailing a copy in the manner provided in Code of Civil Procedure §415.20.
- 8.3 **Notice to Claimant.** If notice is given to a claimant as defined in Civil Code §8004: (1) by personal delivery thereof to claimant; or (2) by depositing same in United States mail, enclosed in a sealed envelope addressed to claimant at its address stated in: a preliminary notice, stop payment notice, or claim against a payment bond; or on the records of the Contractor's State License Board; and sent by registered or certified mail with postage prepaid or express mail or overnight delivery by an express mail carrier; or (3) by leaving the notice and mailing a copy in the manner provided in code of Civil Procedure §415.20.
- 8.4 **Notice to Surety.** If notice is given to the Surety: (1) by personal delivery to the Surety; or (2) by depositing same in United States mail, enclosed in a sealed envelope, addressed to the Surety at the address of the Surety shown in the applicable Performance Bond or Payment Bond, or if none is shown, the address on the records of the Department of Insurance, and sent by registered or certified mail with postage prepaid or express mail or overnight delivery by an express mail carrier; or (3) by leaving the notice and mailing a copy in the manner provided in Code of Civil Procedure §415.20.

## ARTICLE 9 – CLAIMS

- 9.1 **Submission of Claims.** All Claims by Contractor shall be submitted in accordance with the procedures set forth in this Article 9.

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## 9.2 Arising of Claim.

**9.2.1 Changes.** A Claim by Contractor involving a Contract Adjustment due to a Compensable Change or Deleted Work arises upon issuance of a decision denying, in whole or in part, Contractor's Change Order Request. Such Claim shall be prepared and submitted in accordance with the requirements of this Article 9, including, without limitation, Paragraphs 9.3.3 through 9.3.5, below.

**9.2.2 Other Claims.** Claims by Contractor other than those described in Subparagraph 9.2.1, above, arise at the time that The Owner receives written notice by Contractor of Contractor's intent to file the Claim. Such notice of intent shall be given no later than five (5) Days after the Discovery Date relative to such circumstances (even if Contractor has not yet experienced a Loss or Delay due to such circumstances) and shall state the event or condition giving rise to the Claim and its probable effect, if any, upon the Contract Price and Contract Time. **FAILURE BY CONTRACTOR TO SUBMIT A NOTICE OF INTENT TO FILE CLAIM IN ACCORDANCE WITH THIS SUBPARAGRAPH 9.2.2 SHALL, IN ACCORDANCE WITH THE PROVISIONS OF SECTION 4.6 OF THE SPECIAL CONDITIONS, CONSTITUTE A WAIVER BY CONTRACTOR OF THE RIGHT TO FURTHER RECOURSE OR RECOVERY UPON SUCH CLAIM.**

## 9.3 Content of Claims. A Claim must include the following:

**9.3.1** a statement that it is a Claim and a request for a decision on the Claim

**9.3.2** a detailed description of the act, error, omission, unforeseen condition, event or other circumstance giving rise to the claim

**9.3.3** Supporting documentation as follows: (1) if the Claim involves a Contract Adjustment due to Compensable Change or Deleted Work, documentation demonstrating that a complete Notice of Change and Change Order Request were timely and properly submitted as required by General Contract Provisions Section 40; (2) if the Claim involves an adjustment to the Contract Time, documentation demonstrating that a complete Notice of Delay and Request for Extension were timely and properly submitted as required by General Contract Provisions Section 40 and General Contract Provisions Section 80; and (3) if the Claim does not involve a Contract Adjustment on the basis of Compensable Change or Deleted Work, documentation demonstrating that a notice of intent to file the Claim was timely and properly submitted as required by Subparagraph 9.2.2, above;

**9.3.4** a detailed justification for any remedy or relief sought by the Claim, including, without limitation, all of the following: (1) a detailed cost breakdown in the form required for submittal of Change Order Requests, which complies with the prohibition on "total cost" calculations; and (2) job cost records substantiating the actual costs that have been incurred; and

**9.3.5** a written certification, signed by a responsible managing officer or principal of Contractor's organization who has the authority to sign contracts on behalf of Contractor and who has personally investigated the matters alleged in the Claim, in the following form:

"I hereby certify under penalty of perjury that I am a managing officer or principal of (Contractor) and that I have reviewed the Claim presented herewith on Contractor's behalf and/or on behalf of (Subcontractor(s)) and that the following statements are, to the best of my knowledge after

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diligent inquiry into the circumstances of such Claim, true and correct:

**(i)** the facts alleged in or that form the basis for the Claim are true and accurate;

**(ii)** I do not know of any facts or circumstances, not alleged in the Claim, that by reason of their not being alleged render any fact or statement alleged in the Claim materially misleading;

**(iii)** I have, with respect to any request for money or damages alleged in or that forms the basis for the Claim, reviewed the job cost records (including those maintained by Contractor and by any Subcontractor, of any Tier, that is asserting all or any portion of the Claim) and confirmed with reasonable certainty that the losses or damages alleged to have been suffered by Contractor and/or such Subcontractor were in fact suffered in the amounts and for the reasons alleged in the Claim;

**(iv)** I have, with respect to any request for extension of time or claim of delay, disruption, hindrance or interference alleged in or that forms the basis for the Claim, reviewed the job schedules (including those maintained by Contractor and by any Subcontractor, of any Tier, that is asserting all or any portion of the Claim) and confirmed that the delays or disruption alleged to have been suffered by Contractor and/or such Subcontractor were in fact experienced for the durations, in the manner, and with the consequent effects on the time and/or sequence of performance of the Work, as alleged in the Claim; and,

**(v)** Contractor has not received payment from the County of Riverside for, nor has Contractor previously released the County of Riverside from, any portion of the Claim.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Date: \_\_\_\_\_

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9.4 **Noncompliance** Failure by contractor to comply with Paragraph 9.3, above, shall give the Owner the right, without obligation, to deny the Claim or return the Claim without any response.

## 9.5 Submission of Claims

**9.5.1 Time for Filing.** All Claims and supporting documentation and certifications required to be submitted by Contractor must be submitted to the Owner within thirty (30) Days after the Claim arises (as “arises” is defined in Paragraph 9.2, above). No Claims by Contractor are permitted after Final Payment.

**9.5.2 Manner of Filing.** A claim shall be submitted by registered or certified mail, return receipt requested.

**9.5.3 Condition Precedent.** Contractor’s strict compliance with the requirements of this Article 9 as to a Claim shall be considered a condition precedent to Contractor’s right to initiate or seek determination of its rights in any legal proceedings with respect to such Claim.

## 9.6 Response to Claims by Contractor

**9.6.1 Claims Response.** The Owner shall provide a reasonable review and issue a written Good Faith Determination within forty-five (45) Days of receipt of the Claim, unless the Owner and Contractor have by mutual agreement extended the time period. The written Good Faith Determination shall identify which portion of the Claim is disputed by the Owner and which portion is undisputed.

**9.6.2 Meeting with the Board.** If County should need to submit and gain approval of the Board of Supervisors prior to providing the Contractor the written statement identifying the undisputed and disputed portions of the Claim, and the governing body does not meet within the forty-five (45) days or within the mutually agreed time extension, The Owner shall have three (3) days following the next duly publicly noticed meeting of the Board of Supervisors after the forty-five (45) day period, or agreed extension, to provide Contractor a written statement identifying the disputed portion and undisputed portion of the Claim.

**9.6.3 Payments on Undisputed Portion(s).** Any payment due on an undisputed portion of the Claim shall be processed and made within sixty (60) days after the Owner issues its written statement. Amounts not paid in a timely manner shall bear interest at 7 percent per annum.

**9.6.4 Failure of County to Respond** If the County of Riverside should fail to respond to a Claim from Contractor within the time periods set forth in this 9.6 or otherwise meet the time requirements, the Claim shall be deemed rejected in its entirety. A Claim that is denied by reasons of Owner’s failure to have responded to the Claim, or its failure to otherwise meet the requirements of Public Contract Code §9204, shall not constitute an adverse finding with regard to the merits of the Claim or the responsibility or qualifications of the Contractor.

## 9.7 Meet and Confer

**9.7.1 Dispute by Contractor.** If Contractor disputes Owner’s Good Faith Determination and written response of a Claim by Contractor, or if County fails to respond within the prescribed time set forth herein, the Contractor may demand, in writing sent by registered or certified mail return receipt requested, an informal conference to meet and confer for settlement of the issues still in dispute. Upon receipt of such demand, Owner shall schedule a meet and confer conference within thirty (30) Days.

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**9.7.2 Conclusion of Meet and Confer.** Within ten (10) business days following conclusion of the meet and confer conference, if the Claim or any portion thereof remains in dispute, The Owner shall provide the Contractor with a written statement identifying the portion of the Claim still in dispute and the portion that is undisputed. Any payment due on the undisputed portion shall be processed and made within sixty (60) days after such written statement is issued. Amounts not paid in a timely manner shall bear interest at 7 percent per annum.

**9.7.3 Mediation.** Any disputed portion of the Claim as identified by the Contractor in writing, shall be submitted to non-binding mediation with the Owner and Contractor sharing the associated costs equally. The Owner 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 its respective mediator in connection with the selection of the neutral mediator. Mediation includes any non-binding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assist the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

**9.7.4** If mediation is unsuccessful, the parts of the Claim remaining in dispute shall be subject to applicable procedures outside this section.

## **9.8 Subcontractor Claims**

**9.8.1 Subcontractor Claim** If a subcontractor or lower tier subcontractor has a claim against the Owner, the Contractor may present to the Owner 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 a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the Owner shall furnish reasonable documentation to support the claim.

**9.8.2 Contractor Response** Within forty five (45) days of receipt of the written request by the subcontractor, the Contractor shall notify the subcontractor in writing as to whether the Contractor presented the claim to the Owner and, if the Contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

## **9.9 Claims Based on Differing Site Conditions**

**9.9.1 Contractor Responsibility** Save and except as hereinafter provided in this Paragraph 9.9 for Contract Adjustments due to Differing Site Conditions, Contractor agrees at Contractor's Own Expense to assume the risk and costs of Extra Work and Delay due to concealed or unknown conditions, surface or subsurface, at the Site or in Existing Improvements.

**9.9.2 Differing Site Conditions** Differing Site Conditions are those conditions at the Site or in Existing Improvements and not otherwise reasonably ascertainable by Contractor in the performance of its obligations under the Contract Documents (including, without limitation, conditions not reasonably ascertainable by Contractor from documents or information described in Technical Specification C-105, that were provided or available to Contractor for its review prior to the Bid Closing Deadline) that constitute: (1) hazardous materials that constitute hazardous waste, as defined in California Health and Safety Code §25117, that is required to be



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removed to a Class I, Class II, or Class III disposal site in accordance with provisions of Applicable Laws; (2) subsurface or concealed conditions at the Site or concealed conditions in Existing Improvements which differ materially from those indicated by the Contract Documents or other information that was either reviewed by Contractor or that Contractor was given the opportunity to review prior to the Bid Closing Deadline; or (3) unknown physical conditions at the Site or concealed conditions in Existing Improvements of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents.

**9.9.3 Notice of Change** If Contractor encounters conditions it believes constitute Differing Site Conditions, then Contractor shall, before such conditions are disturbed, give Notice of Change as required by General Contract Provisions Section 40, below, stating, without limitation, a detailed description and precise location of the conditions encountered.

**9.9.4 Investigation by County** Upon receipt of notice from Contractor as required by Subparagraph 9.9.3, above, County shall promptly investigate Contractor's report of Differing Site Conditions.

**9.9.5 Change Order Request** If Contractor intends to seek a Contract Adjustment based upon Differing Site Conditions, it shall submit a complete and timely Change Order Request in accordance with General Contract Provisions Section 40, setting forth its request for a Contract Adjustment.

**9.9.6 Contract Adjustments** If, following Contractor's compliance with its obligations under this Paragraph 9.9, County finds that Differing Site Conditions exist, then, unless the Contractor's right to Contract Adjustment has been waived, a Contract Adjustment shall be made for the resulting Compensable Change and Compensable Delay, in such amount and duration as County determines by issuance of a Good Faith Determination are reasonable and permitted by these General Conditions.

## **9.9.7 WAIVER BY CONTRACTOR**

**FAILURE BY CONTRACTOR TO STRICTLY COMPLY WITH THE REQUIREMENTS OF THIS PARAGRAPH 9.9 PERTAINING TO CONTRACT ADJUSTMENT BASED ON A CLAIM FOR DIFFERING SITE CONDITIONS SHALL, IN ACCORDANCE WITH SECTION 4.6 OF THE SPECIAL CONDITIONS, CONSTITUTE A WAIVER BY CONTRACTOR OF THE RIGHT TO FURTHER RECOURSE OR RECOVERY UPON SUCH CLAIM.**

**9.9.8 Final Completion** No claim by Contractor for additional compensation for Differing Site Conditions shall be allowed if asserted after Final Payment.

**9.10 Continuous Work** Contractor shall, notwithstanding the existence of a Claim by Contractor that is disputed by Owner, maintain continuous performance, without interruption, suspension or slowing, of the Work and its other obligations (1) pending issuance by The Owner of a Good Faith Determination of the Claim and (2) thereafter in compliance with the terms of such Good Faith Determination.

## **ARTICLE 10 – GOVERNING LAW**

**10.1** The interpretation and enforcement of the Construction Contract and other Contract Documents and of the performance by the parties thereunder shall, notwithstanding application of the principles of conflicts of laws, be governed by the laws of the State of California. The Superior Court for Riverside County shall have exclusive jurisdiction and venue over any legal

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proceedings arising out of or involving the interpretation or enforcement of, or other matters relating to, the Construction Contract, the other Contract Documents or the performance of the parties thereunder.

## **ARTICLE 11 - MISCELLANEOUS**

11.1 Terms used in this Agreement shall have the meanings in the General Provision Section 10, "Definition of Terms".

11.2 No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

11.3 Owner and Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract.

11.4 Any provision or part of the Contract held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner or Contractor, who agree that the Contract shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

IN WITNESS WHEREOF, Owner and Contractor have signed 2 copies of this Agreement. This Agreement will be effective on the day and year first above written.

**OWNER**  
COUNTY OF RIVERSIDE

By: \_\_\_\_\_  
V. Manuel Perez  
Chair, Board of Supervisors

ATTEST:  
Kimberly A. Rector  
Clerk of the Board

By: \_\_\_\_\_  
Deputy

(SEAL)

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APPROVED AS TO FORM:  
County Counsel

By: \_\_\_\_\_  
Danielle Maland  
Deputy County Counsel

**CONTRACTOR:**

\_\_\_\_\_  
(Company Name) **(SEAL)**

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Printed Title)

**Contractor's signature shall be notarized.**

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**See Notary Form Below**

**END OF CONTRACT FORM**

## ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of \_\_\_\_\_)

On \_\_\_\_\_ before me, \_\_\_\_\_  
(insert name and title of the officer)

personally appeared \_\_\_\_\_,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.

Signature \_\_\_\_\_ (Seal)

Clear Form

Print Form

Project No. \_\_\_\_\_

Bond No. \_\_\_\_\_

## **PAYMENT BOND**

(Public Work - Civil Code Sections 9550 et seq.)

KNOW ALL PERSONS BY THESE PRESENT

THAT WHEREAS, the County of Riverside ("County") by action of the Board of Supervisors on \_\_\_\_\_, 20\_\_\_\_, has awarded Contract Number \_\_\_\_\_ ("Contract") to the undersigned \_\_\_\_\_ as Principal ("Principal") to perform the work ("Work") for the following Apron Pavement Rehabilitation Project at the French Valley Airport ("Project");

AND, WHEREAS, said principal is required by the Contract and/or by Division 3, Part IV, Title XV, Chapter 7 (commencing at Section 9550) of the California Civil Code to furnish a payment bond in connection with 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 County in the penal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), this amount being not less than one hundred percent (100%) of the total sum payable by County under the Contract at the time the Contract is awarded by County to the principal, lawful money of the United States of America, for the payment of which sum well and truly to be made, we, Principal and Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if Principal, its heirs, executors, administrators, successors, or assigns approved by County, or its subcontractors, of any contracting tier, shall fail to pay any person or persons named in California Civil Code, Section 9554, then Surety will pay for the same, in or to an amount not exceeding the penal amount hereinabove set forth.

Surety, for value received, agrees that no change, extension of time, alteration or addition to the terms of the Contract, or to the Work to be performed thereunder, nor any rescission or attempted rescission of the Contract or this bond, nor any conditions precedent or subsequent in the bond or Contract attempting to limit the right of recovery of any claimant otherwise entitled to recover under the Contract or this bond shall in any way impair or affect Surety's obligation under this bond, and Surety does hereby waive notice of any such changes, extensions of time, alterations or additions.

Surety is not released from liability to those for whose benefit this bond has been given, by reason of any breach of the Contract by County or Principal.

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.

**Affix Seal if Corporation**

\_\_\_\_\_  
(Firm Name – Principal)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
(Business Address)

By \_\_\_\_\_

(Original Signature)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Corporation Name – Surety)

**Affix Corporate Seal**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
(Business Address)

By \_\_\_\_\_

(Signature – Attached Notary's Acknowledgment)

\_\_\_\_\_  
ATTORNEY-IN-FACT

(Title-Attach Power of Attorney)

**Note:** Notary acknowledgment of signatures of Bidder and Surety, and Surety's Power of Attorney,  
must be included or attached

Project No. \_\_\_\_\_

Bond No. \_\_\_\_\_

## **PERFORMANCE BOND**

(Public Work – Public Contract Code Sections 20129 (b))

KNOW ALL PERSONS BY THESE PRESENT

THAT WHEREAS, the County of Riverside ("County") by action of the Board of Supervisors on \_\_\_\_\_, 20\_\_\_\_, has awarded Contract Number \_\_\_\_\_ ("Contract") to the undersigned \_\_\_\_\_ as Principal ("Principal") to perform the work ("Work") for the following Apron Pavement Rehabilitation Project at the French Valley Airport ("Project");

AND, WHEREAS, said Principal is required by the Contract and/or by California Public Contract Code, Section 20129 (b) to furnish a performance 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 County in the penal sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_), this amount being not less than one hundred percent (100%) of the total sum payable by County under the Contract at the time the Contract is awarded by County to the Principal, lawful money of the United States of America, for the payment of which sum well and truly to be made, we, Principal and Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if Principal, its heirs, executors, administrators, successors or assigns approved by County, shall in all things stand to and abide by and well and truly keep and perform all the undertakings, terms, covenants, conditions and agreements in the Contract, including, without limitation, all obligations during the original term and any extensions thereof as may be granted by County, with or without notice to Surety thereof (including, without limitation, the obligation for Principal to pay liquidated damages), all obligations during the period of any warranties and guarantees required under the Contract and all other obligations otherwise arising under the terms of the Contract (such as, but not limited to, obligations of indemnification), all within the time and in the manner therein designated in all respects according to their true intent and meaning, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

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) less the "Balance of the Contract Price" (as hereinafter defined); subject to the penal amount of this bond as set forth above. The term "Balance of the Contract Price," as used in this paragraph, shall mean the total amount payable to Principal by County under the Contract and any modifications thereto, less the amount previously paid by County to the Principal and less amounts that County is authorized to withhold under the terms of the Contract.



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 District, in the exercise of its sole and absolute discretion, Surety shall not utilize Principal in completing performance of the Work.

No right of action shall accrue on this bond to or for the use of any person or entity other than County or its successors or assigns.

Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

Surety, for value received, agrees that no change, extension of time, alteration or addition to the terms of the Contract, or to the work to be performed thereunder, shall in any way impair or affect Surety's obligation under this bond, and Surety does hereby waive notice of any such changes, extensions of time, alterations or additions.

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.

**Affix Seal if Corporation**

\_\_\_\_\_  
**(Firm Name – Principal)**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
**(Business Address)**

**By**

\_\_\_\_\_  
**(Original Signature)**

\_\_\_\_\_  
**(Title)**

\_\_\_\_\_  
(Corporation Name – Surety)

Affix Corporate Seal

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
(Business Address)

By

\_\_\_\_\_  
(Signature – Attached Notary's Acknowledgment)

\_\_\_\_\_  
ATTORNEY-IN-FACT

(Title-Attach Power of Attorney)

**Note:** Notary acknowledgment of signatures of Bidder and Surety, and Surety's Power of Attorney,  
must be included or attached

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## Special Conditions

### ARTICLE 1

Not used.

### ARTICLE 2

Not used.

### ARTICLE 3

3.1-3.6 Not Used.

### 3.7 Permits, Fees, and Legal Notices

**3.7.1 Permits** Contractor shall obtain and pay for all permits and approvals that are not stated in the Contract Documents to be the responsibility of the County of Riverside. Such permits and approvals that are the responsibility of the Contractor may include local building or land use permits, California Department of Fish and Game Streambed Alteration Agreements (Section 1600 et seq.), California Department of Fish and Game collection permits, U.S. Army Corps of Engineers 404 fill and dredge authorization, Clean Water Act Section 401 authorization (managed by the local California Regional Water Quality Control Boards) land owner agreements, or other regulatory permits or approvals required for the implementation of the Project. All permits, licenses and certificates obtained by Contractor shall be delivered to County of Riverside prior and as a condition to Final Completion and Contractor's right to Final Payment.

**3.7.2 Applicable Laws, Notices** Contractor shall comply with, and give notices required by, Applicable Laws bearing on performance of the Work.

**3.7.3 Bonds, Undertakings** Contractor shall, without Contract Adjustment, procure and obtain all bonds required of the County of Riverside or the Contractor by the municipality in which the Project is located or by any other public or private body with jurisdiction over the Project. In connection with such bonds, the Contractor shall prepare all applications, supply all necessary back-up material and furnish the surety with any required personal undertakings. The Contractor shall also obtain and pay, without Contract Adjustment, all charges for all approvals for street closings, parking meter removal and other similar matters as may be necessary or appropriate from time to time for the performance of the Work.

**3.7.4 Notice of Violations** Contractor shall immediately notify County of Riverside in writing of any instruction received from County of Riverside, or any other Project Team member that, if implemented, would cause a violation of any Applicable Law.

**3.7.5 Governmental Authority Approvals** Where the Contract Documents state, or Applicable Laws require, that materials, processes or procedures must be approved by a Governmental Authority, Contractor shall be responsible for satisfying the requirements and obtaining the approval of such Governmental Authority.

### 3.8 Contractor's Personnel

**3.8.1 Key Persons** Contractor's employees acting as project manager, scheduler and superintendent constitute Key Persons. Individuals acting as Key Persons who are not already identified in Contractor's Post-Award Submittals shall be identified in writing to County of Riverside prior to commencement of the Work.

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**3.8.2 Background Check** Contractor shall perform, prior to commencing Work on the Site, a thorough background check of each of the Key Persons and shall not, without prior written approval of County of Riverside, employ any person to act as a Key Person if such background check, or other information known to Contractor, discloses a felony conviction or other matter which casts any reasonable doubt on the competency, reliability or honesty of such person.

**3.8.3 Project Manager** The Key Person acting as project manager shall be deemed to have full authority to contractually bind Contractor, including, without limitation, the authority to bind Contractor to the terms of Contract Adjustments.

**3.8.4 Transfer** Contractor's Key Personnel are deemed of essence to the Construction Contract. No Key Person shall, for so long as he/she is employed by Contractor, be transferred to any other project nor any of his/her responsibilities reassigned at any time during performance of the Work without the prior written approval of County of Riverside, which approval may be granted or withheld in County of Riverside's sole and absolute discretion.

**3.8.5 Removal** County of Riverside shall have the right, at any time, to direct the removal and replacement of any Key Person if his/her performance is determined by County of Riverside, in its sole and absolute discretion, to be unsatisfactory

**3.8.6 Replacement** Any individual proposed by Contractor as a replacement for a Key Person must be approved in advance by County of Riverside, such approval not to be unreasonably withheld, after submission by Contractor to County of Riverside of complete information concerning such individual's experience and qualifications.

**3.8.7 Communications** Any individual proposed by Contractor as a replacement for a Key Person must be approved in advance by County of Riverside, such approval not to be unreasonably withheld, after submission by Contractor to County of Riverside of complete information concerning such individual's experience and qualifications.

**3.8.8 Contact Information** Contractor shall provide to County of Riverside, prior to the start of the Work, telephone numbers where Key Persons can be reached 24-hours a day, 7 Days a week.

**3.8.9 Signatures** Prior to commencing the Work, Contractor shall submit to County of Riverside a facsimile of the signatures of the Key Person acting as project manager, as well as any other representatives of Contractor with authority to sign on behalf of and contractually bind Contractor.

**3.8.10 Exclusion from Site** Contractor shall at all times maintain good discipline and order at the Site among its employees and the employees of the Subcontractors. Any person in the employ of Contractor or any of the Subcontractors, of any Tier, whom County of Riverside deems, in its sole and absolute discretion, incompetent, unfit, intemperate, troublesome or otherwise undesirable shall be excluded from the Site and shall not again be employed on the Site except with written approval of County of Riverside.

### **3.9 Not used.**

### **3.10 Documents at Site, Reporting, Meetings**

#### **3.10.1 Documents at Site**

**.1 Contract Documents, Submittals** Contractor shall at all times while performing Work at the Site maintain, in good order, at the Site: (1) one legible set of the permitted Contract Documents; (2) one legible copy of the current version of the other Contract Documents; (3) one legible and current version of approved Shop Drawings, Product Data, Samples and other Submittals; (4) one approved Storm Water Pollution Prevention Plan (SWPPP); and (5) one copy

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of all reports prepared pursuant to the Mitigation, Monitoring, and Reporting Program (MMRP) requirements of the California Environmental Quality Act.

**.2 Record Documents Contractor** shall maintain Record Drawings and Specifications in a satisfactory record condition by posting, on a weekly basis (or, in the case of building or site mechanical, electrical, plumbing or fire sprinkler systems, as soon thereafter as is reasonable and practical), thoroughly and neatly, on the Drawings and Specifications all Changes to the Work and the location of the Work, including, without limitation, the location of portions of the Work shown diagrammatically, as occurs in the actual construction of the Work. The Record Drawings and Specifications and other Record Documents shall be prepared or converted, if requested by County of Riverside, to electronic form (such as, AutoCAD, Adobe Acrobat or other software satisfactory to County of Riverside). All Record Drawings and Specifications and other Record Documents shall be deemed the sole property of County of Riverside and, at the earlier of Final Completion or termination of the Construction Contract, shall be turned over to County of Riverside. At the time they are so turned over to County of Riverside, they shall be manually signed by Contractor's superintendent certifying that, to the best of his/her knowledge, they are true and accurate and that the indications thereon represent the actual condition of the Work.

**.3 Availability for Review** Copies or originals of all documents required to be maintained by Contractor at the Site or required to be submitted to County of Riverside or the Architect shall be available at all times at the Site while Work is being performed for review by County of Riverside, Inspector of Record, Architect and Governmental Authorities.

**.4 Condition of Payment** Compliance by Contractor with the requirements of this Paragraph 3.10.1 shall be deemed a condition to Contractor's right to payment upon its Applications for Payment.

### **3.10.2 Daily Reports**

**.1 Delivery** At the end of each Day that Contractor performs the Work on the Site, Contractor shall submit a daily report to County of Riverside (on the form provided or approved by County of Riverside) together with applicable delivery tickets for all labor, materials and equipment furnished that Day. If requested by County of Riverside, daily reports shall be delivered electronically.

**.2 Content** Daily Reports shall include the following information:

- (1) Labor** – The names of the workers, and for each such worker his/her classification and hours worked.
- (2) Material** – A list of the different materials used and for each different material the quantity used.
- (3) Equipment** – The type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable.
- (4) Inspection and Testing Activities** – A list of inspections performed by name of inspector and testing company and the type of inspection, items of the Work involved and a description of the outcome of such
- (5) Visitors, Guests, Dignitaries** – A list of visitors and guests by name, title, company, and purpose of visit
- (6) Areas of Work** – A statement of the areas of the Site on which the Work was performed and a detailed description of the stage, status and progress of the Work in each such area at the beginning and end of the Day.

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- (7) Accidents, Delays, Defective Work – A description in detail of any injuries to the workers, accidents or delays that occurred or Defective Work that was encountered.
  - (8) Other Services and Expenditures – A description of other services and expenditures in such detail as County of Riverside may require.

**.3 Payment** Timely and complete submission of daily reports by Contractor shall be a condition to Contractor's right to payment under the Construction Contract.

**3.10.3 Progress Meetings** Contractor shall attend all progress meetings at the Site, at which meetings progress of the Work shall be reported in detail with reference to the then-current updated Construction Schedule approved by the County of Riverside. Progress meetings shall be held weekly, or at such other time or frequency as County of Riverside, in its sole and absolute discretion, deems necessary. A representative of each Subcontractor then actively performing Work, or immediately scheduled to become active, shall have a competent and knowledgeable representative present at such progress meeting to report on the condition of the Work of such Subcontractor and to receive relevant information. Meeting notes shall be taken by the County of Riverside or Architect and distributed to all meeting attendees and all other affected parties.

**3.10.4 Notice Requirements** Under no circumstances shall information contained in Contractor's daily job reports, monthly reports or job meeting minutes relieve Contractor of its obligations to comply with, serve as a substitute for, nor constitute a waiver by County of Riverside of its right to insist upon, Contractor's compliance with the provisions of the Contract Documents relative to timely and complete notice to County of Riverside of Changes, Delays, Claims or other matters for which written notice is required by the Contract Documents.

**3.10.5 Availability for Review** Copies or originals of all Record Documents, daily reports, job meeting minutes and other documents required to be maintained or actually maintained by Contractor at the Site or required to be submitted to County of Riverside or Architect shall be available at the Site for review by County of Riverside, Architect, Inspectors of Record, County of Riverside Consultants and Governmental Authorities.

**3.11-3.18 Not used.**

### **3.19 Labor, Wages, Payroll, Records**

**3.19.1 Public Work** This Work is a "public work" as defined in Labor Code §1720 and must be performed in accordance with the requirements of Labor Code §§1720 to 1850 and Title 8 California Code of Regulations §§16000 to 17270, which govern the payment of prevailing wage rates on public works projects.

**3.19.2 Prevailing Wage Rates** Pursuant to the provisions of Article 2 (commencing at §1770), Chapter 1, Part 7, Division 2 of the Labor Code of California, the Board of Supervisors has obtained the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime Work in the locality in which the Work is to be performed for each craft, classification or type of worker needed to execute the Work from the Director of the Department of Industrial Relations. These rates are on file with County of Riverside and copies will be made available to any interested party on request. Contractor shall post a copy of such wage rates at the Site. The adoption of such wage rates is not a representation that labor can be obtained at these rates. It is the responsibility of Contractor to inform itself as to the local labor conditions. Holiday and overtime Work, when permitted by Applicable Laws, shall be paid for at a rate of at least one and one-half times the adopted rate of per diem wages, unless otherwise specified. Holidays shall be defined in the collective bargaining agreement applicable to each particular craft, classification or type of worker employed.

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**3.19.3 Unclassified Workers** Any worker employed to perform the Work not covered by any classification listed in the general prevailing wage rate of per diem wages determined by the Director of the Department of Industrial Relations shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to the Work to be performed by him/her, and such minimum wage rate shall be retroactive to time of initial employment of such person on the Project in such classification.

**3.19.4 Per Diem Wages** Contractor shall pay or shall cause to be paid each worker engaged in the Work not less than the general prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations, regardless of any contractual relationship which may be alleged to exist between Contractor or any of the Subcontractors and such workers. Pursuant to California Labor Code §1773.1, per diem wages are deemed to include employer payments for health and welfare, pension, vacation, travel time and subsistence pay.

**3.19.5 Applicable Laws** Contractor represents and warrants that the Contractor's Bid and the Contract Price includes funds sufficient to allow Contractor to comply with all Applicable Laws governing the labor or services to be provided. Contractor shall defend and indemnify the Indemnitees in accordance with General Contract Provisions Section 70, above, for any violation of any Applicable Law, including but not limited to California Labor Code §2810, and agrees to pay all assessments, including wages and penalties, made against County of Riverside in relation to such violations.

**3.19.6 Posting at Site** Contractor shall post at appropriate conspicuous points on the Site the prevailing wage rates of the Department of Industrial Relations in accordance with 8 California Code of Regulations 16100(b).

**3.19.7 Worker Hours** As provided in Article 3 (commencing at §1810), Chapter 1, Part 7, Division 2 of the California Labor Code, eight (8) hours of labor shall constitute a legal day's work. The standard work day of any worker employed at any time by Contractor or any of the Subcontractors performing the Work, or any part of the Work, shall, except as hereinafter provided, be limited and restricted by Contractor to eight (8) hours per day, between the hours of 6:00 A.M. and 6:00 P.M. (unless otherwise required by Applicable Laws), plus one-half hour unpaid lunch approximately midway through the shift, provided that Contractor or any of the Subcontractors may establish a four day/ten-hour schedule consistent with Applicable Laws pertaining to payment of prevailing wages and the provisions any applicable collective bargaining agreement. A regular-work week shall constitute forty (40) hours during any one week. Notwithstanding the provisions hereinabove set forth, the parties hereto may agree to changes in the work day or the work week as permitted by Applicable Laws, and Contractor and all Subcontractors must pay the appropriate prevailing wage rate for those hours and days worked.

**3.19.8 Overtime** Overtime work performed by employees of Contractor or any of the Subcontractors shall be compensated according to the applicable general prevailing rate established by the Department of Industrial Relations for holiday and overtime work for each craft, classification or type of worker in the locality in which the Work is to be performed.

**3.19.9 Payroll Records** It shall be the sole responsibility of Contractor to ensure compliance with the provisions of Applicable Laws and the Contract Documents relating to maintenance and submission of payroll records. Pursuant to the provisions of California Labor Code §1776, Contractor shall keep, and shall cause each Subcontractor performing any portion of the Work to keep, accurate certified payroll records, showing the name, address, social security number, worker classification and 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 Contractor in connection with the Work. Certified payroll records must be in the payroll reporting format prescribed by the Division of Labor Standards Enforcement. If there is no work by Contractor or a Subcontractor in a given week, Contractor must keep and submit a certified "Nonperformance" payroll record, indicating "no work" for that week. Contractor shall submit

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all certified payroll records to County of Riverside in complete, unredacted form with an original signature on the Statement of Compliance, along with, and as a condition to, its Applications for Payment. Additionally, payroll records shall be available for inspection at all reasonable hours at the principal office of Contractor on the following basis:

- .1 a certified copy of an employee's payroll record shall be made available for inspection or furnished to such employee or his or her authorized representative on request
- .2 a certified copy of all such payroll records shall be made available for inspection or furnished upon request to County of Riverside, the Division of Labor Standards Enforcement and/or the Division of Apprenticeship Standards of the Department of Industrial Relations or such other person or entity as designated by County of Riverside;
- .3 a certified copy of all such payroll records shall be made available upon request by the public for inspection or the copying thereof, provided that (1) such request is made by the public through either County of Riverside, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the Department of Industrial Relations, (2) such requested payroll records have not previously been provided pursuant to Subparagraph 3.19.9.2, above, then the requesting individual or entity shall, prior to being provided the records, reimburse the costs of preparation by Contractor, the Subcontractors and the entity through which the request was made, and (3) the public shall not be given access to records at the principal office of Contractor;
- .4 Contractor and each Subcontractor shall within ten (10) Days after receipt of a written request file a certified copy of such payroll records with the person or entity that requested the records;
- .5 Contractor shall provide, and shall cause each Subcontractor to provide, payroll records as defined in Title 8 California Code of Regulations §16000 to County of Riverside within ten (10) Days after receipt of written request, at no cost to County of Riverside;
- .6 any copy of such payroll records made available for inspection by, and copies furnished to, the public shall be redacted in a manner so as to prevent disclosure of an individual's name, address, and social security number, except that any copy made available for inspection by, and copies furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (29 U.S.C. Section 175a) shall be marked or redacted only to prevent disclosure of an individual's name and social security number, and in either event, the name and address of Contractor or the Subcontractor performing the Work shall not be so obliterated; and
- .7 any copy made available to an agency 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 nonr copies of certified payroll records;
- .8 Contractor shall inform County of Riverside concurrently with the submission of its initial Application for Payment, of the location of such payroll records, including the street address, city and County of Riverside, and thereafter shall, within five (5) working days, provide a notice of any change of location and address of such payroll records.

**3.19.10 Apprentices** Contractor acknowledges that, even if performance of the Work involves a dollar amount greater than or a number of working days greater than that specified in California Labor Code §1777.5, it shall be the sole responsibility of Contractor, for all apprentice occupations, to ensure compliance with California Labor Code §1777.5, including, without limitation, the following provisions



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**.1** Apprentices of any crafts or trades may be employed and, when required by California Labor Code §1777.5, shall be employed provided they are properly registered in full compliance with the provisions of the California Labor Code.

**.2** Every such apprentice shall be paid the prevailing rate of per diem wages for apprentices in the trade to which he or she is registered and shall be employed only at the work of the craft or trade to which he or she is registered.

**.3** Only apprentices, as defined in California Labor Code §3077, who are in training under apprenticeship standards and written apprentice agreements under Chapter 4 (commencing at §3070), Division 3 of the California Labor Code, are eligible to be employed at the apprentice wage rate on Public Works. The employment and training of each apprentice shall be in accordance with either: (1) the apprenticeship standards and apprentice agreements under which he or she is training, or (2) the rules and regulations of the California Apprenticeship Council.

**.4** Contractor and any of the Subcontractors employing workers in any apprenticeable craft or trade in performing any of the Work shall apply to the applicable joint apprenticeship committee for a certificate approving Contractor or the Subcontractor under the applicable apprenticeship standards and fixing the ratio of apprentices to journeymen employed in performing the Work.

**.5** Prior to commencing the Work, Contractor shall submit contract award information to an applicable apprenticeship program that can supply apprentices to the Site of the Work. The information submitted shall include an estimate of journeyman hours to be performed under the Construction Contract, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also be submitted to County of Riverside if requested by County of Riverside

**.6** The ratio of the Work performed by apprentices to journeymen employed in a particular craft or trade on the Work may be no higher than the ratio stipulated in the apprenticeship standards under which the apprenticeship program operates, where Contractor or the Subcontractor agrees to be bound by those standards, but, except as otherwise provided in this Paragraph, in no case shall the ratio be less than one (1) hour of apprentice work for every five (5) hours of journeyman work. Apprentices may comprise up to thirty percent (30%) of the work force of each particular craft, classification or type of worker employed, unless the applicable joint apprenticeship committee establishes a lower percentage. To the extent possible, fifty percent (50%) of the apprentice work force shall consist of first-year apprentices.

**.7** The interpretation and enforcement of California Labor Code §1777.5 shall be in accordance with the rules and procedures of the California Apprenticeship Council.

**.8** Contractor and all the Subcontractors shall comply with California Labor Code §1777.6, which forbids certain discriminatory practices in the employment of apprentices.

**.9** Contractor shall become fully acquainted with the law regarding apprentices prior to commencement of the Work, paying special attention to California Labor Code §§1777.5, 1777.6, and 1777.7 and Title 8, California Code of Regulations, §§200 et seq. Questions may be directed to the State Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, California.

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**3.19.11 Pre-Construction Meetings, Interviews** Contractor shall attend any pre-construction meetings held by County of Riverside to discuss labor requirements. Contractor and the Subcontractors shall allow County of Riverside, County of Riverside Consultants and the Department of Industrial Relations, and designated representatives of each, to conduct, at their discretion, interviews of workers at the Site during working hours.

**3.19.12 Penalties for Violations**

**.1 Prevailing Wage Violations** Pursuant to California Labor Code §1775, Contractor and any of the Subcontractors shall, as a penalty, pay an amount not to exceed Two Hundred Dollars (\$200) for each Day, or portion thereof, for each worker paid less than the prevailing rates, determined by the Director of the Department of Industrial Relations, for the trade or craft in which such worker is employed by Contractor or, except as provided by said §1775, by any of the Subcontractors, of any Tier, for performance of the Work. The amount of this penalty shall be determined by the Labor Commissioner and shall be based on consideration of both: (1) whether the failure of Contractor or the Subcontractor to pay the correct rate of per diem wages was a good faith mistake and, if so, whether the error was promptly and voluntarily corrected upon being brought to the attention of Contractor or the Subcontractor; and (2) whether Contractor or the Subcontractor has a prior record of failing to meet its prevailing wage obligations. The difference between the amount owed to each worker pursuant to such prevailing wage rates, and the amount paid to each worker for each Day or portion thereof for which each worker was paid less than the prevailing wage rate, shall be paid to each worker by Contractor.

**.2 Working Hour Violations** Pursuant to Labor Code §1813, Contractor shall pay a penalty of Twenty-Five Dollars (\$25) per worker employed in the performance of the Work by Contractor or by any of the Subcontractors for each Day during which such worker is required or permitted to work more than eight (8) hours in any Day and forty (40) hours in any one calendar week in violation of the provisions of Article 3 (commencing at §1810), Chapter 1, Part 7, Division 2 of the California Labor Code.

**.3 Payroll Record Violations** Pursuant to California Labor Code §1776, Contractor shall in the event of a failure to comply within ten (10) Days with any written notice requesting the records enumerated in subdivision (a) of said §1776, pay a penalty of One Hundred Dollars (\$100) for each Day, or portion thereof, for each worker, until Contractor has strictly complied with such request. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

**.4 Apprenticeship Violations** Pursuant to California Labor Code §1777.7, if Contractor or the Subcontractor is determined by the Chief of the Division of Apprenticeship Standards (the "Chief") to have knowingly committed a first-time violation of California Labor Code §1777.5, Contractor or the Subcontractor shall pay, as a civil penalty, an amount not exceeding One Hundred Dollars (\$100) for each full Day of noncompliance, provided that the amount of this penalty may be reduced by the Chief if the penalty would be disproportionate to the severity of the violation. In lieu of this penalty, the Chief may, for a first-time violation and with the concurrence of the joint apprenticeship committee, order Contractor or the Subcontractor to provide apprentice employment equivalent to the work hours that would have been provided for apprentices during the period of noncompliance. If such violation by Contractor or the Subcontractor is a second or subsequent violation committed within a three (3) year period from a previous violation of §1777.5, Contractor or the Subcontractor shall pay, as a civil

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penalty, to County of Riverside the sum of not more than Three Hundred Dollars (\$300) for each full Day of noncompliance. County of Riverside shall withhold the amount of the civil penalty from contract progress payments then due or to become due. In addition, if Contractor or the Subcontractor is determined to have knowingly committed a serious violation of any provision of §1777.5, the Chief may deny to Contractor or the Subcontractor, and to its responsible officers, the right to bid on or be awarded a contract to perform work as a subcontractor on any subsequent project for County of Riverside for a period of up to one (1) year for the first violation and for a period of up to three (3) years for a second or subsequent violation.

**3.19.13 Subcontractor Provisions** Contractor shall include, and shall require the Subcontractors to include, contractual provisions in all contracts they enter into for the performance of the Work requiring compliance with the provisions of this Section 3.19 at no additional cost.

**3.19.14 Condition of Payment** Compliance by Contractor with the requirements of this Section 3.19 and each of its Paragraphs shall be a condition to Contractor's right to payment under its Applications for Payment. Without limitation to the foregoing, payments to Contractor shall not be made when payroll records are delinquent or inadequate.

### **3.20 Labor Code §2810**

**3.20.1 Application** The provisions of this Section 3.20 apply only if the Contractor has not executed a collective bargaining agreement covering the workers who will be employed to perform the Work.

**3.20.2 Declaration by Contractor** If a Declaration of Sufficiency of Funds has not been submitted by Contractor as a Post-Award Submittal, then it must be submitted prior to Award. In executing the Construction Contract, Contractor warrants and represents that all of the statements contained in its Declaration of Sufficiency of Funds remain true and correct as of the date of execution of the Construction Contract and may be relied upon by County of Riverside in determining whether there appears to be sufficient funds in the Contractor's Bid to allow the Contractor to comply with all Applicable Laws governing the labor or services to be provided for the performance of the Work. The truth and accuracy of the statements contained in said Declaration and in this Paragraph 3.20.2 constitute a material part of the Contractor's consideration for, and a material inducement to the County of Riverside's entering into, the Construction Contract.

**3.20.3 Continuing Duty** To the extent that any of the information provided in the Declaration of Sufficiency of Funds submitted by Contractor relating to numbers of workers or independent contractors that will be employed or utilized for performance of the Work was or is based upon a best estimate, rather than actual figures or information, then the Contractor assumes the continuing duty to the County of Riverside to ascertain the actual figures and information requested in the Declaration of Sufficiency of Funds and to provide such actual figures and information to the County of Riverside in the form of a revised and updated Declaration of Sufficiency of Funds once the actual figures and information become known.

### **3.21-3.24 Not used.**

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## **ARTICLE 4**

### **4.1-4.5 Not used.**

### **4.6 Good Faith Determinations**

Wherever in the Contract Documents it is provided that the County of Riverside may or shall make a determination or decision in the exercise of good faith (including, without limitation, provisions for a Good Faith Determination by County of Riverside), any such determination or decision that the person exercising such right on behalf of County of Riverside believes in good faith to be a proper exercise of County of Riverside'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, shall be complied with by Contractor without Delay to Contractor's performance of the Work. However, unless the Contract Documents expressly provides otherwise, neither such good faith determination or decision nor Contractor's compliance therewith shall be interpreted as precluding the Contractor from exercising its rights to seek adjudication of its rights in the manner permitted by these General Conditions or Applicable Laws.

### **4.7 Not used.**

## **ARTICLE 5**

### **5.1-5.2 Not Used.**

### **5.3 Contingent Assignments of Subcontracts**

**5.3.1 Contingent Assignment** Contractor hereby contingently assigns to County of Riverside, or to such person or entity as County of Riverside, in its sole and absolute discretion, designates, all of its interest in subcontracts entered into by Contractor with its first-Tier Subcontractors. If a first-Tier Subcontractor has provided a performance bond, then Contractor's rights under such performance bond are likewise hereby deemed contingently assigned to County of Riverside or its designee and provision shall be made in the performance bond for surety's consent to such contingent assignment.

**5.3.2 Acceptance by County of Riverside** The contingent assignments provided for by this Section 5.3 will be effective only as to those subcontracts and performance bonds which County of Riverside or its designee accepts in writing. Said acceptance is the sole condition upon which the effectiveness of such assignments are contingent. County of Riverside or its designee may accept any such assignment at any time during the course of the Work and prior to Final Completion. Such contingent assignments are part of the consideration to County of Riverside for entering into the Construction Contract with Contractor and may not be withdrawn prior to Final Completion.

**5.3.3 County of Riverside Obligation** County of Riverside's or its designee's sole obligation in the event it accepts a contingent assignment of a subcontract under this Section 5.3 shall be to pay in accordance with the terms of such subcontract for Work performed after written notice of acceptance of such assignment. In the event County of Riverside directs that such assignment be made to County of Riverside's designee, then such designee only, and not County of Riverside, shall be solely liable under such assignment for Work performed after written notice of acceptance of such assignment.

## **ARTICLE 6**

Not used.

## **ARTICLE 7**

Not used.

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## ARTICLE 8

Not used.

## ARTICLE 9

Not used.

## ARTICLE 10

Not used.

## ARTICLE 11

### 11.1 Insurance

**11.1.1 Contractor's Insurance Requirements** Without limiting or diminishing any of the Contractor's obligations to defend, indemnify or hold the County of Riverside harmless as set forth elsewhere in the Contract Documents, Contractor shall procure and maintain or cause to be maintained throughout the performance of the Work and for the duration of any guarantee or warranty provided under the Contract Documents, at Contractor's Own Expense, the following insurance coverages:

**.1 Worker's Compensation** If the Contractor has "employees", as defined by the State of California, the Contractor shall provide a policy of statutory Workers' Compensation Insurance (Coverage A) as prescribed by the laws of the State of California. Such policy shall include Employers' Liability (Coverage B) including Occupational Disease with limits not less than \$1,000,000 per person per accident. Such policy shall be endorsed to waive subrogation in favor of the County of Riverside and, if applicable, to provide a Borrowed Servant/Alternate Employer Endorsement. Pursuant to §3700 of the California Labor Code, Contractor shall file with the County of Riverside before commencing the Work the following signed certification:

*"I am aware of the provisions of Section 3700 of the Labor Code, which requires 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 shall comply with such provisions before commencing the performance of the Work of this Construction Contract."*

**.2 Commercial General Liability** Contractor shall provide a policy of Commercial General Liability insurance coverage, including but not limited to, premises liability, contractual liability, products and completed operations liability, personal and advertising injury, and cross liability coverage, covering claims which may arise from or out of Contractor's performance of its obligations hereunder. Such policy shall name the County of Riverside, its agencies, districts, special districts and departments, and their respective directors, officers, elected or appointed officials, agents, employees and representatives, including, without limitation, the members of the Board of Supervisors, and all other Indemnitees, as "additional insureds" and contain a waiver of subrogation in favor of the County of Riverside and all other such additional insureds. Such policy's limit of liability shall not be less than \$2,000,000 per occurrence combined single limit. If such policy contains a general aggregate limit, it shall apply separately to the Construction Contract or be no less than two (2) times the occurrence limit.

**.3 Vehicle Liability** If vehicles or mobile equipment are used in the performance of the Work or other obligations under the Contract Documents, then Contractor shall provide a policy of liability insurance coverage for all owned, non-owned or hired

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vehicles so used in an amount not less than \$1,000,000 per occurrence combined single limit. If such policy contains a general aggregate limit, it shall apply separately to the Construction Contract or be no less than two (2) times the occurrence limit. Such policy shall name the County of Riverside, its agencies, districts, special districts and departments, and their respective directors, officers, elected or appointed officials, agents, employees and representatives, including, without limitation, the members of the Board of Supervisors, and all other Indemnitees, as "additional insureds" and contain a waiver of subrogation in favor of the County of Riverside and all other such additional insureds.

**.4 Property (Physical Damage)** Contractor shall provide a policy of all-risk property insurance coverage for the full replacement value of all Contractor's equipment, improvements/alterations, temporary structures, and systems, including without limitation, items owned by others in the Contractor's care, custody or control, used on the Site or other County of Riverside-owned property, or used in any way connected with the performance of the Work.

**.5 Builder's All Risk (Course of Construction) Insurance** The Bid Form utilized by Contractor to prepare its Bid states whether the Contractor shall include Builder's All Risk (Course of Construction) Insurance for the Project. If the Bid Form states that such insurance shall be included by the Bidder in its Bid, then Contractor shall provide a policy of Builder's All Risk (Course of Construction) insurance coverage including (if the Work is located in an earthquake or flood zone or if required on financed or bond financing arrangements) coverage for earthquake and flood, covering the County of Riverside, Contractor and every Subcontractor, of every Tier, for the entire Project, including property to be used in the construction of the Work while such property is at off-Site storage locations or while in transit or temporary off-Site storage. Such policy shall include, but not be limited to, coverage for fire, collapse, faulty workmanship, debris removal, expediting expense, fire department service charges, valuable papers and records, trees, grass, shrubbery and plants. If scaffolding, falsework and temporary buildings are insured separately by the Contractor or others, evidence of such separate coverage shall be provided to County of Riverside prior to the start of the Work. Such policy shall be written on a completed value form. Such policy shall also provide coverage for temporary structures (on-Site offices, etc.), fixtures, machinery and equipment being installed as part of the Work. Contractor shall be responsible for any and all deductibles under such policy. Upon request by County of Riverside, Contractor shall declare all terms, conditions, coverages and limits of such policy. NOTWITHSTANDING THE FOREGOING, COUNTY OF RIVERSIDE RETAINS THE RIGHT EXERCISED AT ANY TIME PRIOR TO AWARD TO ELECT TO USE ITS OWN BUILDER'S ALL RISK (COURSE OF CONSTRUCTION) INSURANCE and in the event County of Riverside so elects to deduct the price for such insurance that is stated in Contractor's Bid, or if not so stated the amount included by Contractor for such insurance in the preparation of the Contractor's Bid, from the Contract Price by means of a Contract Adjustment pursuant to Change Order or Unilateral Change Order. If the County of Riverside so provides the All Risk (Course of Construction) insurance for the Project, then Contractor shall assume the cost of any and all applicable policy deductibles (currently, \$50,000 per occurrence) and shall insure its own machinery, equipment, tools, etc. from any loss of any nature whatsoever.

**11.1.2 Other Mandatory Insurance Requirements** The Contractor shall comply with the following requirements, which shall be deemed applicable to all carriers and insurance policies provided pursuant to Paragraph 11.1.1, above:

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**.1 Insurer Rating** Any and all insurance carrier(s) providing insurance coverage under any and all policy(ies) of insurance provided by Contractor pursuant to Paragraph 11.1.1, above, shall be admitted to the State of California and have an A M BEST rating of not less than A: VIII (A:8) (unless such requirements are waived in writing by the County of Riverside Risk Manager, and if the County of Riverside's Risk Manager waives such requirement for a particular insurer such waiver is only valid for that specific insurer and only for one policy term);

**.2 Self Insured Retentions** Contractor shall advise County of Riverside in writing the dollar amount of any "self insured retention" maintained by the Contractor that exceeds \$500,000 per occurrence. Each such self insured retention must have the prior written consent of the County of Riverside Risk Manager before the commencement of any Work or operations or activities relating to the Work. If Contractor is notified that a self insured retention is unacceptable to the County of Riverside, then at the election of the County of Riverside, exercised in the County of Riverside's sole and absolute discretion, by means of the written approval of the County of Riverside's Risk Manager, the insurance carriers affected shall either: (1) reduce or eliminate such self-insured retention as respects the Construction Contract; or (2) procure a bond, satisfactory to County of Riverside and approved by County of Riverside in writing, which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses.

**.3 Evidence of Insurance** Contractor shall cause Contractor's insurance carrier(s) to furnish to the County of Riverside either: (1) properly executed original certificate(s) of insurance and certified original copy(ies) of endorsement(s) effecting the coverage(s) required by this Section 11.1, or (2) if requested to do so orally or in writing by the County of Riverside Risk Manager, provide original, certified copy(ies) of policy(ies) including all endorsement(s) and all attachment(s) thereto, showing such insurance is in full force and effect. Such certificate(s) and all policies of insurance provided by Contractor pursuant to this Section 11.1 shall contain the covenant of the insurance carrier(s) that thirty (30) Days' written notice shall be given to the County of Riverside prior to any material modification, cancellation, expiration or reduction in coverage of such insurance. Each certificate of insurance and endorsement shall be signed by an individual expressly authorized by the insurance carrier to do so on the carrier's behalf. Contractor shall, if requested, provide written proof of such authorization. ***Contractor shall not commence any Work or any activities or operations related to the performance of the Work unless and until Contractor has complied with all of the requirements of this Section 11.1.***

**.4 Modification, Cancellation, Changes in Limits** A material modification, cancellation, expiration, or reduction in coverage, shall constitute an Event of Contractor Default for which County of Riverside shall have right, without limitation to its other rights or remedies provided for in the Contract Documents or under Applicable Laws, to terminate this Construction Contract. Such Event of Contractor Default may only be deemed cured if the County of Riverside receives, prior to the effective date of such material modification, cancellation, expiration or reduction in coverage, properly executed original certificate(s) of insurance and original, certified copy(ies) of policy(ies) and endorsement(s), including all attachment(s) thereto, evidencing that the coverage(s) required by this Section 11.1 is(are) and will continue, without any gap in coverage, in full force and effect in accordance with all of the requirements of this Section 11.1

**.5 Primary Coverage** It is understood and agreed to by County of Riverside and Contractor that the Contractor's insurance coverage(s) provided under this Section 11.1

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shall be construed as primary insurance, and the County of Riverside's insurance and/or deductibles and/or self-insured retentions or self-insured programs shall not be construed as contributory.

**.6 Additional Coverages** County of Riverside reserves the right to modify, adjust, add to and/or increase the types, amounts and terms of any insurance required under this Section 11.1 if the County of Riverside Risk Manager determines, in the exercise of his/her sole and absolute discretion, that the type, amount or terms of the insurance required by this Section 11.1 has(have) become inadequate or that additional risk or exposure exists (such as, without limitation, the use of aircraft, watercraft, cranes, etc.) due to: (1) a Change in the Work; (2) the period of time of Contractor's actual performance of the Work continuing for longer than five (5) years from the Date of Commencement, whether due to Contract Adjustment or for any for any other reason; or (3) other circumstances not reasonably foreseeable to County of Riverside.

**.7 Subcontractors** Contractor shall include provisions in its subcontracts requiring each Subcontractor to assume an obligation toward Contractor to furnish insurance that complies with all of the requirements of this Section 11.1 as apply to Contractor's insurance provided to Owner and requiring such Subcontractors to furthermore include provisions in their contracts with lower-Tier Subcontractors likewise requiring such lower Tier Subcontractors assume the same obligations for providing such insurance and for passing through all such obligations to all lower Tier Subcontractors.

**.8 Self-Insurance** If approved by County of Riverside, in the exercise of its sole and absolute discretion, the insurance requirements contained in this Section 11.1 may be met with a program(s) of self-insurance provided that such program has been submitted to County of Riverside and approved in writing by County of Riverside prior to commencement of the Work or of any activity or operation related to the performance of the Work.

**.9 Notice of Claim** Contractor agrees to notify County of Riverside of any claim by a third party or any incident or event that may give rise to a claim arising from the performance of the Work.

## **ARTICLE 12**

### **12.1 Performance Bond and Payment Bond**

**12.1.1 Performance and Payment Bonds** Within ten (10) Days after the issuance of the Notice of Intent to Award and prior to commencing Work, Contractor shall deliver to County of Riverside a good and sufficient labor and materials payment bond ("Payment Bond") and a good and sufficient performance bond ("Performance Bond"), each in the amount of one hundred percent (100%) of the Contract Price.

**12.1.2 Changes** The penal amounts of the Performance Bond and Payment Bond shall be increased on account of Change Orders and Unilateral Change Orders increasing the Contract Price. If requested by County of Riverside, Contractor shall deliver to County of Riverside evidence of such increases.

**12.1.3 Replacement** Should any bond required hereunder or any Surety on such bond become or be determined by County of Riverside to be insufficient, it shall be replaced within ten (10) Days by a bond that fully complies with the requirements of this Section 12.1.



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**12.1.4 Duration** The Payment Bond shall remain in effect until Acceptance of the Work and all Claims of Contractor and the Subcontractors, of any Tier, have been fully and finally resolved. The Performance Bond shall remain in effect and assure faithful performance of all Contractor's obligations under the Contract Documents, including, without limitation, all warranty obligations.

**12.1.5 Condition of Payment** No payments to Contractor for Work performed shall be made or due until there has been full compliance with the requirements of this Section 12.1.

**12.1.6 Surety Rating** Any Surety company issuing the Payment Bond or Performance Bond shall be, at all times while such bond is in effect, an Admitted Surety. The Surety company issuing the Performance Bond shall additionally have at all such times a current A.M. Best rating of A VIII (A:8) or better.

**12.1.7 Premiums** The premiums for the Performance Bond and Payment Bond are included in the Contract Price and shall be paid by Contractor at Contractor's Own Expense.

**12.1.8 Oblige** The Performance Bond shall name County of Riverside as obligee, all performance bonds, if any, purchased by Subcontractors shall name County of Riverside as a dual obligee with Contractor

**12.1.9 No Exoneration** The Performance Bond and Payment Bond shall contain provisions to the effect that Changes, Change Orders, Unilateral Change Orders, Construction Change Directives, Modifications, Changes and Contract Adjustments shall in no way release or exonerate Contractor or its Surety from their obligations and that notice thereof is waived by the Surety.

**12.1.10 Communications** County of Riverside shall have the right to communicate with Surety with respect to matters that are related to performance of the Work. Contractor shall be provided with a copy of all such communications that are in writing. Such communications shall not create or be interpreted as creating any contractual obligation of County of Riverside to Surety.

**12.1.11 No Limitation** The requirements of this Section 12.1 pertaining to the Performance Bond and the Payment Bond shall be without limitation to any other obligations Contractor may have under Applicable Laws to provide bonding for the benefit of, and to assure payment to the Subcontractors performing the Work for, the Project.

**12.1.12 Subcontractor Bonds** Each performance bond, if any, furnished by a first-Tier Subcontractor shall include a provision whereby the Surety consents to the contingent assignment of Contractor's rights under such bond to County of Riverside as provided in Section 5.3, above.

**12.1.13 Claims** By incorporation of the Construction Contract into the Performance Bond issued by Surety, Surety shall be deemed, subject to the other terms of the Performance Bond, to be bound by all of the obligations assumed by Contractor under the Contract Documents, including, without limitation, bound by any determination, resolution, award or judgment entered or made upon any Claim by or against Contractor.

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**END OF SPECIAL CONDITIONS**

## Part 1 – General Contract Provisions

### Section 10 Definition of Terms

When the following terms are used in these specifications, in the contract, or in any documents or other instruments pertaining to construction where these specifications govern, the intent and meaning shall be defined as follows:

Paragraph Number	Term	Definition
10-01	<b>AASHTO</b>	The American Association of State Highway and Transportation Officials.
10-02	<b>Access Road</b>	The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public roadway.
10-03	<b>Advertisement</b>	A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.
10-04	<b>Airport</b>	Airport means an area of land or water which is used or intended to be used for the landing and takeoff of aircraft; an appurtenant area used or intended to be used for airport buildings or other airport facilities or rights of way; airport buildings and facilities located in any of these areas, and a heliport.
10-05	<b>Airport Improvement Program (AIP)</b>	A grant-in-aid program, administered by the Federal Aviation Administration (FAA).
10-06	<b>Air Operations Area (AOA)</b>	The term air operations area (AOA) shall mean any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operation area shall include such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiway, or apron.
10-07	<b>Apron</b>	Area where aircraft are parked, unloaded or loaded, fueled and/or serviced.
10-08	<b>ASTM International (ASTM)</b>	Formerly known as the American Society for Testing and Materials (ASTM).
10-09	<b>Award</b>	The Owner's notice to the successful bidder of the acceptance of the submitted bid.
10-10	<b>Bidder</b>	Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.

<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
<b>10-11</b>	<b>Building Area</b>	An area on the airport to be used, considered, or intended to be used for airport buildings or other airport facilities or rights-of-way together with all airport buildings and facilities located thereon.
<b>10-12</b>	<b>Calendar Day</b>	Every day shown on the calendar.
<b>10-13</b>	<b>Certificate of Analysis (COA)</b>	The COA is the manufacturer's Certificate of Compliance (COC) including all applicable test results required by the specifications.
<b>10-14</b>	<b>Certificate of Compliance (COC)</b>	The manufacturer's certification stating that materials or assemblies furnished fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer's authorized representative.
<b>10-15</b>	<b>Change Order</b>	A written order to the Contractor covering changes in the plans, specifications, or proposal quantities and establishing the basis of payment and contract time adjustment, if any, for work within the scope of the contract and necessary to complete the project.
<b>10-16</b>	<b>Contract</b>	<p>A written agreement between the Owner and the Contractor that establishes the obligations of the parties including but not limited to performance of work, furnishing of labor, equipment and materials and the basis of payment.</p> <p>The awarded contract includes but may not be limited to: Advertisement, Contract form, Proposal, Performance bond, payment bond, General provisions, certifications and representations, Technical Specifications, Plans, Supplemental Provisions, standards incorporated by reference and issued addenda.</p>
<b>10-17</b>	<b>Contract Item (Pay Item)</b>	A specific unit of work for which a price is provided in the contract.
<b>10-18</b>	<b>Contract Time</b>	The number of calendar days or working days, stated in the proposal, allowed for completion of the contract, including authorized time extensions. If a calendar date of completion is stated in the proposal, in lieu of a number of calendar or working days, the contract shall be completed by that date.
<b>10-19</b>	<b>Contractor</b>	The individual, partnership, firm, or corporation primarily liable for the acceptable performance of the work contracted and for the payment of all legal debts pertaining to the work who acts directly or through lawful agents or employees to complete the contract work.
<b>10-20</b>	<b>Contractors Quality Control (QC) Facilities</b>	The Contractor's QC facilities in accordance with the Contractor Quality Control Program (CQCP).

<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
<b>10-21</b>	<b>Contractor Quality Control Program (CQCP)</b>	Details the methods and procedures that will be taken to assure that all materials and completed construction required by the contract conform to contract plans, technical specifications and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors.
<b>10-22</b>	<b>Control Strip</b>	A demonstration by the Contractor that the materials, equipment, and construction processes results in a product meeting the requirements of the specification.
<b>10-23</b>	<b>Construction Safety and Phasing Plan (CSPP)</b>	The overall plan for safety and phasing of a construction project developed by the airport operator, or developed by the airport operator's consultant and approved by the airport operator. It is included in the invitation for bids and becomes part of the project specifications.
<b>10-24</b>	<b>Drainage System</b>	The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the airport area.
<b>10-25</b>	<b>Engineer</b>	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for engineering, of the contract work and acting directly or through an authorized representative.
<b>10-26</b>	<b>Equipment</b>	All machinery, together with the necessary supplies for upkeep and maintenance; and all tools and apparatus necessary for the proper construction and acceptable completion of the work.
<b>10-27</b>	<b>Extra Work</b>	An item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which is found by the Owner's Engineer or Resident Project Representative (RPR) to be necessary to complete the work within the intended scope of the contract as previously modified.
<b>10-28</b>	<b>FAA</b>	The Federal Aviation Administration. When used to designate a person, FAA shall mean the Administrator or their duly authorized representative.
<b>10-29</b>	<b>Federal Specifications</b>	The federal specifications and standards, commercial item descriptions, and supplements, amendments, and indices prepared and issued by the General Services Administration.

<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
<b>10-30</b>	<b>Force Account</b>	<p><b>a.</b> Contract Force Account - A method of payment that addresses extra work performed by the Contractor on a time and material basis.</p> <p><b>b.</b> Owner Force Account - Work performed for the project by the Owner's employees.</p>
<b>10-31</b>	<b>Intention of Terms</b>	<p>Whenever, in these specifications or on the plans, the words "directed," "required," "permitted," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Engineer and/or Resident Project Representative (RPR) is intended; and similarly, the words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer and/or RPR, subject in each case to the final determination of the Owner.</p> <p>Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.</p>
<b>10-32</b>	<b>Lighting</b>	A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.
<b>10-33</b>	<b>Major and Minor Contract Items</b>	A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 20% of the total amount of the award contract. All other items shall be considered minor contract items.
<b>10-34</b>	<b>Materials</b>	Any substance specified for use in the construction of the contract work.
<b>10-35</b>	<b>Modification of Standards (MOS)</b>	Any deviation from standard specifications applicable to material and construction methods in accordance with FAA Order 5300.1.
<b>10-36</b>	<b>Notice to Proceed (NTP)</b>	A written notice to the Contractor to begin the actual contract work on a previously agreed to date. If applicable, the Notice to Proceed shall state the date on which the contract time begins.

<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
<b>10-37</b>	<b>Owner</b>	The term “Owner” shall mean the party of the first part or the contracting agency signatory to the contract. Where the term “Owner” is capitalized in this document, it shall mean airport Sponsor only. The Owner for this project is the County of Riverside.
<b>10-38</b>	<b>Passenger Facility Charge (PFC)</b>	Per 14 Code of Federal Regulations (CFR) Part 158 and 49 United States Code (USC) § 40117, a PFC is a charge imposed by a public agency on passengers enplaned at a commercial service airport it controls.
<b>10-39</b>	<b>Pavement Structure</b>	The combined surface course, base course(s), and subbase course(s), if any, considered as a single unit.
<b>10-40</b>	<b>Payment bond</b>	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will pay in full all bills and accounts for materials and labor used in the construction of the work.
<b>10-41</b>	<b>Performance bond</b>	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will complete the work in accordance with the terms of the contract.
<b>10-42</b>	<b>Plans</b>	The official drawings or exact reproductions which show the location, character, dimensions and details of the airport and the work to be done and which are to be considered as a part of the contract, supplementary to the specifications. Plans may also be referred to as 'contract drawings.'
<b>10-43</b>	<b>Project</b>	The agreed scope of work for accomplishing specific airport development with respect to a particular airport.
<b>10-44</b>	<b>Proposal</b>	The written offer of the bidder (when submitted on the approved proposal form) to perform the contemplated work and furnish the necessary materials in accordance with the provisions of the plans and specifications.
<b>10-45</b>	<b>Proposal guaranty</b>	The security furnished with a proposal to guarantee that the bidder will enter into a contract if their own proposal is accepted by the Owner.
<b>10-46</b>	<b>Quality Assurance (QA)</b>	Owner’s responsibility to assure that construction work completed complies with specifications for payment.
<b>10-47</b>	<b>Quality Control (QC)</b>	Contractor’s responsibility to control material(s) and construction processes to complete construction in accordance with project specifications.

<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
<b>10-48</b>	<b>Quality Assurance (QA) Inspector</b>	An authorized representative of the Engineer and/or Resident Project Representative (RPR) assigned to make all necessary inspections, observations, tests, and/or observation of tests of the work performed or being performed, or of the materials furnished or being furnished by the Contractor.
<b>10-49</b>	<b>Quality Assurance (QA) Laboratory</b>	The official quality assurance testing laboratories of the Owner or such other laboratories as may be designated by the Engineer or RPR. May also be referred to as Engineer's, Owner's, or QA Laboratory.
<b>10-50</b>	<b>Resident Project Representative (RPR)</b>	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for all necessary inspections, observations, tests, and/or observations of tests of the contract work performed or being performed, or of the materials furnished or being furnished by the Contractor, and acting directly or through an authorized representative.
<b>10-51</b>	<b>Runway</b>	The area on the airport prepared for the landing and takeoff of aircraft.
<b>10-52</b>	<b>Runway Safety Area (RSA)</b>	A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to aircraft. See the construction safety and phasing plan (CSPP) for limits of the RSA.
<b>10-53</b>	<b>Safety Plan Compliance Document (SPCD)</b>	Details how the Contractor will comply with the CSPP.
<b>10-54</b>	<b>Specifications</b>	A part of the contract containing the written directions and requirements for completing the contract work. Standards for specifying materials or testing which are cited in the contract specifications by reference shall have the same force and effect as if included in the contract physically.
<b>10-55</b>	<b>Sponsor</b>	A Sponsor is defined in 49 USC § 47102(24) as a public agency that submits to the FAA for an AIP grant; or a private Owner of a public-use airport that submits to the FAA an application for an AIP grant for the airport.
<b>10-56</b>	<b>Structures</b>	Airport facilities such as bridges; culverts; catch basins, inlets, retaining walls, cribbing; storm and sanitary sewer lines; water lines; underdrains; electrical ducts, manholes, handholes, lighting fixtures and bases; transformers; navigational aids; buildings; vaults; and, other manmade features of the airport that may be encountered in the work and not otherwise classified herein.
<b>10-57</b>	<b>Subgrade</b>	The soil that forms the pavement foundation.



<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
<b>10-58</b>	<b>Superintendent</b>	The Contractor's executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the RPR, and who shall supervise and direct the construction.
<b>10-59</b>	<b>Supplemental Agreement</b>	A written agreement between the Contractor and the Owner that establishes the basis of payment and contract time adjustment, if any, for the work affected by the supplemental agreement. A supplemental agreement is required if: (1) in scope work would increase or decrease the total amount of the awarded contract by more than 25%; (2) in scope work would increase or decrease the total of any major contract item by more than 25%; (3) work that is not within the scope of the originally awarded contract; or (4) adding or deleting of a major contract item.
<b>10-60</b>	<b>Surety</b>	The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds that are furnished to the Owner by the Contractor.
<b>10-61</b>	<b>Taxilane</b>	A taxiway designed for low speed movement of aircraft between aircraft parking areas and terminal areas.
<b>10-62</b>	<b>Taxiway</b>	The portion of the air operations area of an airport that has been designated by competent airport authority for movement of aircraft to and from the airport's runways, aircraft parking areas, and terminal areas.
<b>10-63</b>	<b>Taxiway/Taxilane Safety Area (TSA)</b>	A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an aircraft. See the construction safety and phasing plan (CSPP) for limits of the TSA.
<b>10-64</b>	<b>Work</b>	The furnishing of all labor, materials, tools, equipment, and incidentals necessary or convenient to the Contractor's performance of all duties and obligations imposed by the contract, plans, and specifications.
<b>10-65</b>	<b>Working day</b>	A working day shall be any day other than a legal holiday, Saturday, or Sunday on which the normal working forces of the Contractor may proceed with regular work for at least six (6) hours toward completion of the contract. When work is suspended for causes beyond the Contractor's control, it will not be counted as a working day. Saturdays, Sundays and holidays on which the Contractor's forces engage in regular work will be considered as working days.
<b>10-66</b>	<b>Owner Defined terms</b>	The following terms are included in this contract:
	<b>Contract Drawings</b>	Plans.

<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
	<b>Subcontractor</b>	The subcontractor refers any individual, firm, or corporation to whom the contractor, with approval of the Owner, sublets any part of work.
	<b>Time and Materials Work</b>	An item or items of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which is found by the Engineer to be necessary to complete the work within the intended scope of the contract as previously modified and an agreed price cannot be agreed upon. The Contractor shall perform this work and the Owner agrees to pay the Contractor based upon the work performed by the Contractor's employees and subcontractors, and for materials and equipment used in the construction (along with the Contractor's allowed overhead and profit).

**END OF SECTION 10**

## Section 20 Proposal Requirements and Conditions

**20-01 Advertisement (Notice to Bidders).** See the Advertisement located in the front of these Contract Documents.

**20-02 Qualification of bidders.** Each bidder shall submit evidence of competency and evidence of financial responsibility to perform the work to the Owner at the time of bid opening.

Evidence of competency, unless otherwise specified, shall consist of statements covering the bidder's past experience on similar work, and a list of equipment and a list of key personnel that would be available for the work.

Each bidder shall furnish the Owner satisfactory evidence of their financial responsibility. Evidence of financial responsibility, unless otherwise specified, shall consist of a confidential statement or report of the bidder's financial resources and liabilities as of the last calendar year or the bidder's last fiscal year. Such statements or reports shall be certified by a public accountant. At the time of submitting such financial statements or reports, the bidder shall further certify whether their financial responsibility is approximately the same as stated or reported by the public accountant. If the bidder's financial responsibility has changed, the bidder shall qualify the public accountant's statement or report to reflect the bidder's true financial condition at the time such qualified statement or report is submitted to the Owner.

Unless otherwise specified, a bidder may submit evidence that they are prequalified with the State Highway Division and are on the current "bidder's list" of the state in which the proposed work is located. Evidence of State Highway Division prequalification may be submitted as evidence of financial responsibility in lieu of the certified statements or reports specified above.

**20-03 Contents of proposal forms.** The Owner's proposal forms state the location and description of the proposed construction; the place, date, and time of opening of the proposals; and the estimated quantities of the various items of work to be performed and materials to be furnished for which unit bid prices are asked. The proposal form states the time in which the work must be completed, and the amount of the proposal guaranty that must accompany the proposal. The Owner will accept only those Proposals properly executed on physical forms or electronic forms provided by the Owner. Bidder actions that may cause the Owner to deem a proposal irregular are given in paragraph 20-09 *Irregular proposals*.

Mobilization, if included in this proposal, is specified in Item C-105.

A non-mandatory prebid conference will be held for this project to discuss as a minimum, the following items: material requirements; submittals; Quality Control/Quality Assurance requirements; the construction safety and phasing plan including airport access and staging areas; and unique airfield paving construction requirements. The location, date and time are stated in the Advertisement.

**20-04 Issuance of proposal forms.** The Owner reserves the right to refuse to issue a proposal form to a prospective bidder if the bidder is in default for any of the following reasons:

**a.** Failure to comply with any prequalification regulations of the Owner, if such regulations are cited, or otherwise included, in the proposal as a requirement for bidding.

b. Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts in force with the Owner at the time the Owner issues the proposal to a prospective bidder.

c. Documented record of Contractor default under previous contracts with the Owner.

d. Documented record of unsatisfactory work on previous contracts with the Owner.

**20-05 Interpretation of estimated proposal quantities.** An estimate of quantities of work to be done and materials to be furnished under these specifications is given in the proposal. It is the result of careful calculations and is believed to be correct. It is given only as a basis for comparison of proposals and the award of the contract. The Owner does not expressly, or by implication, agree that the actual quantities involved will correspond exactly therewith; nor shall the bidder plead misunderstanding or deception because of such estimates of quantities, or of the character, location, or other conditions pertaining to the work. Payment to the Contractor will be made only for the actual quantities of work performed or materials furnished in accordance with the plans and specifications. It is understood that the quantities may be increased or decreased as provided in the Section 40, paragraph 40-02, Alteration of Work and Quantities, without in any way invalidating the unit bid prices.

**20-06 Examination of plans, specifications, and site.** The bidder is expected to carefully examine the site of the proposed work, the proposal, plans, specifications, and contract forms. Bidders shall satisfy themselves to the character, quality, and quantities of work to be performed, materials to be furnished, and to the requirements of the proposed contract. The submission of a proposal shall be prima facie evidence that the bidder has made such examination and is satisfied to the conditions to be encountered in performing the work and the requirements of the proposed contract, plans, and specifications.

Boring logs and other records of subsurface investigations and tests are available for inspection of bidders. It is understood and agreed that such subsurface information, whether included in the plans, specifications, or otherwise made available to the bidder, was obtained and is intended for the Owner's design and estimating purposes only. Such information has been made available for the convenience of all bidders. It is further understood and agreed that each bidder is solely responsible for all assumptions, deductions, or conclusions which the bidder may make or obtain from their own examination of the boring logs and other records of subsurface investigations and tests that are furnished by the Owner.

**20-07 Preparation of proposal.** The bidder shall submit their proposal on the forms furnished by the Owner. All blank spaces in the proposal forms, unless explicitly stated otherwise, must be correctly filled in where indicated for each and every item for which a quantity is given. The bidder shall state the price (written in ink or typed) both in words and numerals which they propose for each pay item furnished in the proposal. In case of conflict between words and numerals, the words, unless obviously incorrect, shall govern.

Prices should be written in whole dollars and cents. The extended total amount of each item should not be rounded.

The bidder shall correctly sign the proposal in ink. If the proposal is made by an individual, their name and post office address must be shown. If made by a partnership, the name and post office address of each member of the partnership must be shown. If made by a corporation, the person signing the proposal shall give the name of the state where the corporation was chartered and the name, titles, and business address of the president, secretary, and the treasurer. Anyone signing a proposal as an agent shall file evidence of their authority to do so and that the signature is binding upon the firm or corporation.

**20-08 Responsive and responsible bidder.** A responsive bid conforms to all significant terms and conditions contained in the Owner's invitation for bid. It is the Owner's responsibility to decide if the

exceptions taken by a bidder to the solicitation are material or not and the extent of deviation it is willing to accept.

A responsible bidder has the ability to perform successfully under the terms and conditions of a proposed procurement, as defined in 2 CFR § 200.318(h). This includes such matters as Contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

**20-09 Irregular proposals.** Proposals shall be considered irregular for the following reasons:

- a. If the proposal is on a form other than that furnished by the Owner, or if the Owner's form is altered, or if any part of the proposal form is detached.
- b. If there are unauthorized additions, conditional or alternate pay items, or irregularities of any kind that make the proposal incomplete, indefinite, or otherwise ambiguous.
- c. If the proposal does not contain a unit price for each pay item listed in the proposal, except in the case of authorized alternate pay items, for which the bidder is not required to furnish a unit price.
- d. If the proposal contains unit prices that are obviously unbalanced.
- e. If the proposal is not accompanied by the proposal guaranty specified by the Owner.
- f. If the applicable Disadvantaged Business Enterprise information is incomplete.

The Owner reserves the right to reject any irregular proposal and the right to waive technicalities if such waiver is in the best interest of the Owner and conforms to local laws and ordinances pertaining to the letting of construction contracts.

**20-10 Bid guarantee.** Each separate proposal shall be accompanied by a bid bond, or other specified acceptable collateral, in the amount specified in the proposal form. Such bond, check, or collateral, shall be made payable to the Owner.

**20-11 Delivery of proposal.** Each proposal submitted shall be placed in a sealed envelope plainly marked with the project number, location of airport, and name and business address of the bidder on the outside. When sent by mail, preferably registered, the sealed proposal, marked as indicated above, should be enclosed in an additional envelope. No proposal will be considered unless received at the place specified in the advertisement or as modified by Addendum before the time specified for opening all bids. Proposals received after the bid opening time shall be returned to the bidder unopened. No faxed or emailed proposals will be accepted. The official time shall be kept locally by the Owner.

**20-12 Withdrawal or revision of proposals.** A bidder may withdraw or revise (by withdrawal of one proposal and submission of another) a proposal provided that the bidder's request for withdrawal is received by the Owner in writing or by fax or by email before the time specified for opening bids. Revised proposals must be received at the place specified in the advertisement before the time specified for opening all bids.

**20-13 Public opening of proposals.** Proposals shall be opened, and read, publicly at the time and place specified in the advertisement. Bidders, their authorized agents, and other interested persons are invited to attend. Proposals that have been withdrawn (by written or telegraphic request) or received after the time specified for opening bids shall be returned to the bidder unopened.

**20-14 Disqualification of bidders.** A bidder shall be considered disqualified for any of the following reasons:

- a. Submitting more than one proposal from the same partnership, firm, or corporation under the same or different name.

**b.** Evidence of collusion among bidders. Bidders participating in such collusion shall be disqualified as bidders for any future work of the Owner until any such participating bidder has been reinstated by the Owner as a qualified bidder.

**c.** If the bidder is considered to be in “default” for any reason specified in paragraph 20-04, *Issuance of Proposal Forms*, of this section.

**20-15 Discrepancies and Omissions.** A Bidder who discovers discrepancies or omissions with the project bid documents shall immediately notify the Owner’s Engineer of the matter. A bidder that has doubt as to the true meaning of a project requirement may submit to the Owner’s Engineer a written request for interpretation no later than 10 calendar days prior to bid opening.

Any interpretation of the project bid documents by the Owner’s Engineer will be by written addendum issued by the Owner. The Owner will not consider any instructions, clarifications or interpretations of the bidding documents in any manner other than written addendum.

## **END OF SECTION 20**

## Section 30 Award and Execution of Contract

**30-01 Consideration of proposals.** After the proposals are publicly opened and read, they will be compared on the basis of the summation of the products obtained by multiplying the estimated quantities shown in the proposal by the unit bid prices. If a bidder's proposal contains a discrepancy between unit bid prices written in words and unit bid prices written in numbers, the unit bid price written in words shall govern. Where discrepancies in the summation of the products occur, the Owner will make the necessary corrections and the corrected values will be used in the Owner's consideration of proposals.

Until the award of a contract is made, the Owner reserves the right to reject a bidder's proposal for any of the following reasons:

a. If the proposal is irregular as specified in Section 20, paragraph 20-09, *Irregular Proposals*.

b. If the bidder is disqualified for any of the reasons specified Section 20, paragraph 20-14, *Disqualification of Bidders*.

In addition, until the award of a contract is made, the Owner reserves the right to reject any or all proposals, waive technicalities, if such waiver is in the best interest of the Owner and is in conformance with applicable state and local laws or regulations pertaining to the letting of construction contracts; advertise for new proposals; or proceed with the work otherwise. All such actions shall promote the Owner's best interests.

**30-02 Award of contract.** The award of a contract, if it is to be awarded, shall be made within 120 calendar days of the date specified for publicly opening proposals, unless otherwise specified herein.

If the Owner elects to proceed with an award of contract, the Owner will make award to the responsible bidder whose bid, conforming with all the material terms and conditions of the bid documents, is the lowest in price.

The Owner reserves the right to award only the Base Bid, to award any Alternate Bid (if Alternates are an option), or to award either the Base Bid or the Alternate Bid plus Add-On Bids (if Add-On bids are an option). Where discrepancies occur that affect the bid total(s) as described in the subsection titled CONSIDERATION OF PROPOSALS, the contract amount awarded will reflect the corrected values.

Where alternate bids and/or add-on bids are included in the proposal, the lowest qualified bidder will be determined by comparison of the total price for the base bid and all alternates.

**30-03 Cancellation of award.** The Owner reserves the right to cancel the award without liability to the bidder, except return of proposal guaranty, at any time before a contract has been fully executed by all parties and is approved by the Owner in accordance with paragraph 30-07 *Approval of Contract*.

**30-04 Return of proposal guaranty.** All proposal guaranties, except those of the two lowest bidders, will be returned immediately after the Owner has made a comparison of bids as specified in the paragraph 30-01, *Consideration of Proposals*. Proposal guaranties of the two lowest bidders will be retained by the Owner until such time as an award is made, at which time, the unsuccessful bidder's proposal guaranty will be returned. The successful bidder's proposal guaranty will be returned as soon as the Owner receives the contract bonds as specified in paragraph 30-05, *Requirements of Contract Bonds*.

**30-05 Requirements of contract bonds.** At the time of the execution of the contract, the successful bidder shall furnish the Owner a surety bond or bonds that have been fully executed by the bidder and the surety guaranteeing the performance of the work and the payment of all legal debts that may be incurred

by reason of the Contractor's performance of the work. The surety and the form of the bond or bonds shall be acceptable to the Owner. Unless otherwise specified in this subsection, the surety bond or bonds shall be in a sum equal to the full amount of the contract.

The successful bidder shall submit in triplicate, a "Performance Bond" guaranteeing the performance of the work equal to one hundred percent (100%) of the amount of the Contract awarded, and a "Labor and Material Payment Bond" guaranteeing the payment of all legal debts that may be incurred by reason of the Contractor's performance of the work equal to one hundred percent (100%) of the amount of the Contract awarded.

**30-06 Execution of contract.** The successful bidder shall sign (execute) the necessary agreements for entering into the contract and return the signed contract to the Owner, along with the fully executed surety bond or bonds specified in paragraph 30-05, *Requirements of Contract Bonds*, of this section, within 15 calendar days from the date mailed or otherwise delivered to the successful bidder.

The Contractor shall also furnish the required insurance certificates in accordance with the subsection titled RESPONSIBILITY FOR DAMAGE CLAIMS of Sections 70. The successful bidder shall recognize that the proposal included in the contract for execution may differ from the proposal which was submitted with their bid. The proposal included in the contract for execution will include corrections to discrepancies which were discovered during the Owners consideration of proposals, and will contain only the pages from the successful bidder's proposal which cover the bids which were awarded. As a result, the proposal pages in the contract to be executed may contain pages which are not consecutively numbered due to the intentional omission of those proposal pages which cover bids that were not awarded.

49 CFR Part 26 provides that each contract the owner signs with a contractor (and each subcontract the prime contractor signs with a subcontractor) shall include the following assurance:

"The contractor, sub-recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of Department of Transportation (DOT) assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate."

**30-07 Approval of contract.** Upon receipt of the contract and contract bond or bonds that have been executed by the successful bidder, the Owner shall complete the execution of the contract in accordance with local laws or ordinances, and return the fully executed contract to the Contractor. Delivery of the fully executed contract to the Contractor shall constitute the Owner's approval to be bound by the successful bidder's proposal and the terms of the contract.

**30-08 Failure to execute contract.** Failure of the successful bidder to execute the contract and furnish an acceptable surety bond or bonds within the period specified in paragraph 30-06, *Execution of Contract*, of this section shall be just cause for cancellation of the award and forfeiture of the proposal guaranty, not as a penalty, but as liquidated damages to the Owner.

## END OF SECTION 30



## Section 40 Scope of Work

**40-01 Intent of contract.** The intent of the contract is to provide for construction and completion, in every detail, of the work described. It is further intended that the Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with the plans, specifications, and terms of the contract.

**40-02 Alteration of work and quantities.** The Owner reserves the right to make such changes in quantities and work as may be necessary or desirable to complete, in a satisfactory manner, the original intended work. Unless otherwise specified in the Contract, the Owner's Engineer or RPR shall be and is hereby authorized to make, in writing, such in-scope alterations in the work and variation of quantities as may be necessary to complete the work, provided such action does not represent a significant change in the character of the work.

For purpose of this section, a significant change in character of work means: any change that is outside the current contract scope of work; any change (increase or decrease) in the total contract cost by more than 25%; or any change in the total cost of a major contract item by more than 25%.

Work alterations and quantity variances that do not meet the definition of significant change in character of work shall not invalidate the contract nor release the surety. Contractor agrees to accept payment for such work alterations and quantity variances in accordance with Section 90, paragraph 90-03, *Compensation for Altered Quantities*.

Should the value of altered work or quantity variance meet the criteria for significant change in character of work, such altered work and quantity variance shall be covered by a supplemental agreement. Supplemental agreements shall also require consent of the Contractor's surety and separate performance and payment bonds. If the Owner and the Contractor are unable to agree on a unit adjustment for any contract item that requires a supplemental agreement, the Owner reserves the right to terminate the contract with respect to the item and make other arrangements for its completion.

**40-03 Omitted items.** The Owner, the Owner's Engineer or the RPR may provide written notice to the Contractor to omit from the work any contract item that does not meet the definition of major contract item. Major contract items may be omitted by a supplemental agreement. Such omission of contract items shall not invalidate any other contract provision or requirement.

Should a contract item be omitted or otherwise ordered to be non-performed, the Contractor shall be paid for all work performed toward completion of such item prior to the date of the order to omit such item. Payment for work performed shall be in accordance with Section 90, paragraph 90-04, *Payment for Omitted Items*.

**40-04 Extra work.** Should acceptable completion of the contract require the Contractor to perform an item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, Owner may issue a Change Order to cover the necessary extra work. Change orders for extra work shall contain agreed unit prices for performing the change order work in accordance with the requirements specified in the order, and shall contain any adjustment to the contract time that, in the RPR's opinion, is necessary for completion of the extra work.

When determined by the RPR to be in the Owner's best interest, the RPR may order the Contractor to proceed with extra work as provided in Section 90, paragraph 90-05, *Payment for Extra Work*. Extra work that is necessary for acceptable completion of the project, but is not within the general scope of the work

covered by the original contract shall be covered by a supplemental agreement as defined in Section 10, paragraph 10-59, *Supplemental Agreement*.

If extra work is essential to maintaining the project critical path, RPR may order the Contractor to commence the extra work under a Time and Material contract method. Once sufficient detail is available to establish the level of effort necessary for the extra work, the Owner shall initiate a change order or supplemental agreement to cover the extra work.

Any claim for payment of extra work that is not covered by written agreement (change order or supplemental agreement) shall be rejected by the Owner.

**40-05 Maintenance of traffic.** It is the explicit intention of the contract that the safety of aircraft, as well as the Contractor's equipment and personnel, is the most important consideration. The Contractor shall maintain traffic in the manner detailed in the Construction Safety and Phasing Plan (CSPP).

**a.** It is understood and agreed that the Contractor shall provide for the free and unobstructed movement of aircraft in the air operations areas (AOAs) of the airport with respect to their own operations and the operations of all subcontractors as specified in Section 80, paragraph 80-04, *Limitation of Operations*. It is further understood and agreed that the Contractor shall provide for the uninterrupted operation of visual and electronic signals (including power supplies thereto) used in the guidance of aircraft while operating to, from, and upon the airport as specified in Section 70, paragraph 70-15, *Contractor's Responsibility for Utility Service and Facilities of Others*.

**b.** With respect to their own operations and the operations of all subcontractors, the Contractor shall provide marking, lighting, and other acceptable means of identifying personnel, equipment, vehicles, storage areas, and any work area or condition that may be hazardous to the operation of aircraft, fire-rescue equipment, or maintenance vehicles at the airport in accordance with the construction safety and phasing plan (CSPP) and the safety plan compliance document (SPCD).

**c.** When the contract requires the maintenance of an existing road, street, or highway during the Contractor's performance of work that is otherwise provided for in the contract, plans, and specifications, the Contractor shall keep the road, street, or highway open to all traffic and shall provide maintenance as may be required to accommodate traffic. The Contractor, at their expense, shall be responsible for the repair to equal or better than preconstruction conditions of any damage caused by the Contractor's equipment and personnel. The Contractor shall furnish, erect, and maintain barricades, warning signs, flag person, and other traffic control devices in reasonable conformity with the Manual on Uniform Traffic Control Devices (MUTCD) (<http://mutcd.fhwa.dot.gov/>), unless otherwise specified. The Contractor shall also construct and maintain in a safe condition any temporary connections necessary for ingress to and egress from abutting property or intersecting roads, streets or highways. Unless otherwise specified herein, the Contractor will not be required to furnish snow removal for such existing road, street, or highway.

**40-06 Removal of existing structures.** All existing structures encountered within the established lines, grades, or grading sections shall be removed by the Contractor, unless such existing structures are otherwise specified to be relocated, adjusted up or down, salvaged, abandoned in place, reused in the work or to remain in place. The cost of removing such existing structures shall not be measured or paid for directly, but shall be included in the various contract items.

Should the Contractor encounter an existing structure (above or below ground) in the work for which the disposition is not indicated on the plans, the Resident Project Representative (RPR) shall be notified prior to disturbing such structure. The disposition of existing structures so encountered shall be immediately determined by the RPR in accordance with the provisions of the contract.

Except as provided in Section 40, paragraph 40-07, *Rights in and Use of Materials Found in the Work*, it is intended that all existing materials or structures that may be encountered (within the lines, grades, or

grading sections established for completion of the work) shall be used in the work as otherwise provided for in the contract and shall remain the property of the Owner when so used in the work.

**40-07 Rights in and use of materials found in the work.** Should the Contractor encounter any material such as (but not restricted to) sand, stone, gravel, slag, or concrete slabs within the established lines, grades, or grading sections, the use of which is intended by the terms of the contract to be embankment, the Contractor may at their own option either:

a. Use such material in another contract item, providing such use is approved by the RPR and is in conformance with the contract specifications applicable to such use; or,

b. Remove such material from the site, upon written approval of the RPR; or

c. Use such material for the Contractor's own temporary construction on site; or,

d. Use such material as intended by the terms of the contract.

Should the Contractor wish to exercise option a., b., or c., the Contractor shall request the RPR's approval in advance of such use.

Should the RPR approve the Contractor's request to exercise option a., b., or c., the Contractor shall be paid for the excavation or removal of such material at the applicable contract price. The Contractor shall replace, at their expense, such removed or excavated material with an agreed equal volume of material that is acceptable for use in constructing embankment, backfills, or otherwise to the extent that such replacement material is needed to complete the contract work. The Contractor shall not be charged for use of such material used in the work or removed from the site.

Should the RPR approve the Contractor's exercise of option a., the Contractor shall be paid, at the applicable contract price, for furnishing and installing such material in accordance with requirements of the contract item in which the material is used.

It is understood and agreed that the Contractor shall make no claim for delays by reason of their own exercise of option a., b., or c.

The Contractor shall not excavate, remove, or otherwise disturb any material, structure, or part of a structure which is located outside the lines, grades, or grading sections established for the work, except where such excavation or removal is provided for in the contract, plans, or specifications.

**40-08 Final cleanup.** Upon completion of the work and before acceptance and final payment will be made, the Contractor shall remove from the site all machinery, equipment, surplus and discarded materials, rubbish, temporary structures, and stumps or portions of trees. The Contractor shall cut all brush and woods within the limits indicated and shall leave the site in a neat and presentable condition. Material cleared from the site and deposited on adjacent property will not be considered as having been disposed of satisfactorily, unless the Contractor has obtained the written permission of the property Owner.

## END OF SECTION 40

## Section 50 Control of Work

**50-01 Authority of the Resident Project Representative (RPR).** The RPR has final authority regarding the interpretation of project specification requirements. The RPR shall determine acceptability of the quality of materials furnished, method of performance of work performed, and the manner and rate of performance of the work. The RPR does not have the authority to accept work that does not conform to specification requirements.

**50-02 Conformity with plans and specifications.** All work and all materials furnished shall be in reasonably close conformity with the lines, grades, grading sections, cross-sections, dimensions, material requirements, and testing requirements that are specified (including specified tolerances) in the contract, plans, or specifications.

If the RPR finds the materials furnished, work performed, or the finished product not within reasonably close conformity with the plans and specifications, but that the portion of the work affected will, in their opinion, result in a finished product having a level of safety, economy, durability, and workmanship acceptable to the Owner, the RPR will advise the Owner of their determination that the affected work be accepted and remain in place. The RPR will document the determination and recommend to the Owner a basis of acceptance that will provide for an adjustment in the contract price for the affected portion of the work. Changes in the contract price must be covered by contract change order or supplemental agreement as applicable.

If the RPR finds the materials furnished, work performed, or the finished product are not in reasonably close conformity with the plans and specifications and have resulted in an unacceptable finished product, the affected work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor in accordance with the RPR's written orders.

The term "reasonably close conformity" shall not be construed as waiving the Contractor's responsibility to complete the work in accordance with the contract, plans, and specifications. The term shall not be construed as waiving the RPR's responsibility to insist on strict compliance with the requirements of the contract, plans, and specifications during the Contractor's execution of the work, when, in the RPR's opinion, such compliance is essential to provide an acceptable finished portion of the work.

The term "reasonably close conformity" is also intended to provide the RPR with the authority, after consultation with the Sponsor and FAA, to use sound engineering judgment in their determinations to accept work that is not in strict conformity, but will provide a finished product equal to or better than that required by the requirements of the contract, plans and specifications.

The RPR will not be responsible for the Contractor's means, methods, techniques, sequences, or procedures of construction or the safety precautions incident thereto.

**50-03 Coordination of contract, plans, and specifications.** The contract, plans, specifications, and all referenced standards cited are essential parts of the contract requirements. If electronic files are provided and used on the project and there is a conflict between the electronic files and hard copy plans, the hard copy plans shall govern. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, calculated dimensions will govern over scaled dimensions; contract technical specifications shall govern over contract general provisions, plans, cited standards for materials or testing, and cited advisory circulars (ACs); contract general provisions shall govern over plans, cited standards for materials or testing, and cited ACs; plans shall govern over cited standards for materials or testing and cited ACs. If

any paragraphs contained in the Special Provisions conflict with General Provisions or Technical Specifications, the Special Provisions shall govern.

From time to time, discrepancies within cited testing standards occur due to the timing of the change, edits, and/or replacement of the standards. If the Contractor discovers any apparent discrepancy within standard test methods, the Contractor shall immediately ask the RPR for an interpretation and decision, and such decision shall be final.

The Contractor shall not take advantage of any apparent error or omission on the plans or specifications. In the event the Contractor discovers any apparent error or discrepancy, Contractor shall immediately notify the Owner or the designated representative in writing requesting their written interpretation and decision.

**50-04 List of Special Provisions. See Special Provisions section to the General Provisions.**

**50-05 Cooperation of Contractor.** The Contractor shall be supplied with five hard copies or an electronic PDF of the plans and specifications. The Contractor shall have available on the construction site at all times one hardcopy each of the plans and specifications. Additional hard copies of plans and specifications may be obtained by the Contractor for the cost of reproduction.

The Contractor shall give constant attention to the work to facilitate the progress thereof, and shall cooperate with the RPR and their inspectors and with other Contractors in every way possible. The Contractor shall have a competent superintendent on the work at all times who is fully authorized as their agent on the work. The superintendent shall be capable of reading and thoroughly understanding the plans and specifications and shall receive and fulfill instructions from the RPR or their authorized representative.

**50-06 Cooperation between Contractors.** The Owner reserves the right to contract for and perform other or additional work on or near the work covered by this contract.

When separate contracts are let within the limits of any one project, each Contractor shall conduct the work not to interfere with or hinder the progress of completion of the work being performed by other Contractors. Contractors working on the same project shall cooperate with each other as directed.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with their own contract and shall protect and hold harmless the Owner from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced because of the presence and operations of other Contractors working within the limits of the same project.

The Contractor shall arrange their work and shall place and dispose of the materials being used to not interfere with the operations of the other Contractors within the limits of the same project. The Contractor shall join their work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

**50-07 Construction layout and stakes.** The Engineer/RPR shall establish necessary horizontal and vertical control. The establishment of Survey Control and/or reestablishment of survey control shall be by a State Licensed Land Surveyor. Contractor is responsible for preserving integrity of horizontal and vertical controls established by Engineer/RPR. In case of negligence on the part of the Contractor or their employees, resulting in the destruction of any horizontal and vertical control, the resulting costs will be deducted as a liquidated damage against the Contractor.

Prior to the start of construction, the Contractor will check all control points for horizontal and vertical accuracy and certify in writing to the RPR that the Contractor concurs with survey control established for the project. All lines, grades and measurements from control points necessary for the proper execution and control of the work on this project will be provided to the RPR. The Contractor is responsible to establish all layout required for the construction of the project.

Copies of survey notes will be provided to the RPR for each area of construction and for each placement of material as specified to allow the RPR to make periodic checks for conformance with plan grades, alignments and grade tolerances required by the applicable material specifications. Surveys will be provided to the RPR prior to commencing work items that cover or disturb the survey staking. Survey(s) and notes shall be provided in the following format(s): five (5) full size copies of signed and sealed surveys, five (5) copies of the notes as well as pdf copies of both.

Laser, GPS, String line, or other automatic control shall be checked with temporary control as necessary. In the case of error, on the part of the Contractor, their surveyor, employees or subcontractors, resulting in established grades, alignment or grade tolerances that do not concur with those specified or shown on the plans, the Contractor is solely responsible for correction, removal, replacement and all associated costs at no additional cost to the Owner.

No direct payment will be made, unless otherwise specified in contract documents, for this labor, materials, or other expenses. The cost shall be included in the price of the bid for the various items of the Contract.

**50-08 Authority and duties of Quality Assurance (QA) inspectors.** QA inspectors shall be authorized to inspect all work done and all material furnished. Such QA inspection may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. QA inspectors are not authorized to revoke, alter, or waive any provision of the contract. QA inspectors are not authorized to issue instructions contrary to the plans and specifications or to act as foreman for the Contractor.

QA Inspectors are authorized to notify the Contractor or their representatives of any failure of the work or materials to conform to the requirements of the contract, plans, or specifications and to reject such nonconforming materials in question until such issues can be referred to the RPR for a decision.

**50-09 Inspection of the work.** All materials and each part or detail of the work shall be subject to inspection. The RPR shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.

If the RPR requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; but should the work so exposed or examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be at the Contractor's expense.

Provide advance written notice to the RPR of work the Contractor plans to perform each week and each day. Any work done or materials used without written notice and allowing opportunity for inspection by the RPR may be ordered removed and replaced at the Contractor's expense.

Should the contract work include relocation, adjustment, or any other modification to existing facilities, not the property of the (contract) Owner, authorized representatives of the Owners of such facilities shall have the right to inspect such work. Such inspection shall in no sense make any facility owner a party to the contract, and shall in no way interfere with the rights of the parties to this contract.

**50-10 Removal of unacceptable and unauthorized work.** All work that does not conform to the requirements of the contract, plans, and specifications will be considered unacceptable, unless otherwise determined acceptable by the RPR as provided in paragraph 50-02, *Conformity with Plans and Specifications*.

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be removed

immediately and replaced in an acceptable manner in accordance with the provisions of Section 70, paragraph 70-14, *Contractor's Responsibility for Work*.

No removal work made under provision of this paragraph shall be done without lines and grades having been established by the RPR. Work done contrary to the instructions of the RPR, work done beyond the lines shown on the plans or as established by the RPR, except as herein specified, or any extra work done without authority, will be considered as unauthorized and will not be paid for under the provisions of the contract. Work so done may be ordered removed or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to comply with any order of the RPR made under the provisions of this subsection, the RPR will have authority to cause unacceptable work to be remedied or removed and replaced; and unauthorized work to be removed and recover the resulting costs as a liquidated damage against the Contractor.

**50-11 Load restrictions.** The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the work. A special permit will not relieve the Contractor of liability for damage that may result from the moving of material or equipment.

The operation of equipment of such weight or so loaded as to cause damage to structures or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base, or structure before the expiration of the curing period. The Contractor, at their own expense, shall be responsible for the repair to equal or better than preconstruction conditions of any damage caused by the Contractor's equipment and personnel.

**50-12 Maintenance during construction.** The Contractor shall maintain the work during construction and until the work is accepted. Maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces so that the work is maintained in satisfactory condition at all times.

In the case of a contract for the placing of a course upon a course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations.

All costs of maintenance work during construction and before the project is accepted shall be included in the unit prices bid on the various contract items, and the Contractor will not be paid an additional amount for such work.

**50-13 Failure to maintain the work.** Should the Contractor at any time fail to maintain the work as provided in paragraph 50-12, *Maintenance during Construction*, the RPR shall immediately notify the Contractor of such noncompliance. Such notification shall specify a reasonable time within which the Contractor shall be required to remedy such unsatisfactory maintenance condition. The time specified will give due consideration to the exigency that exists.

Should the Contractor fail to respond to the RPR's notification, the Owner may suspend any work necessary for the Owner to correct such unsatisfactory maintenance condition, depending on the exigency that exists. Any maintenance cost incurred by the Owner, shall be recovered as a liquidated damage against the Contractor.

**50-14 Partial acceptance.** If at any time during the execution of the project the Contractor substantially completes a usable unit or portion of the work, the occupancy of which will benefit the Owner, the Contractor may request the RPR to make final inspection of that unit. If the RPR finds upon inspection that the unit has been satisfactorily completed in compliance with the contract, the RPR may accept it as being complete, and the Contractor may be relieved of further responsibility for that unit. Such partial acceptance and beneficial occupancy by the Owner shall not void or alter any provision of the contract.

**50-15 Final acceptance.** Upon due notice from the Contractor of presumptive completion of the entire project, the RPR and Owner will make an inspection. If all construction provided for and contemplated by the contract is found to be complete in accordance with the contract, plans, and specifications, such inspection shall constitute the final inspection. The RPR shall notify the Contractor in writing of final acceptance as of the date of the final inspection.

If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the RPR will notify the Contractor and the Contractor shall correct the unsatisfactory work. Upon correction of the work, another inspection will be made which shall constitute the final inspection, provided the work has been satisfactorily completed. In such event, the RPR will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of final inspection.

**50-16 Claims for adjustment and disputes.** If for any reason the Contractor deems that additional compensation is due for work or materials not clearly provided for in the contract, plans, or specifications or previously authorized as extra work, the Contractor shall notify the RPR in writing of their intention to claim such additional compensation before the Contractor begins the work on which the Contractor bases the claim. If such notification is not given or the RPR is not afforded proper opportunity by the Contractor for keeping strict account of actual cost as required, then the Contractor hereby agrees to waive any claim for such additional compensation. Such notice by the Contractor and the fact that the RPR has kept account of the cost of the work shall not in any way be construed as proving or substantiating the validity of the claim. When the work on which the claim for additional compensation is based has been completed, the Contractor shall, within 10 calendar days, submit a written claim to the RPR who will present it to the Owner for consideration in accordance with local laws or ordinances.

Nothing in this subsection shall be construed as a waiver of the Contractor's right to dispute final payment based on differences in measurements or computations.

## **END OF SECTION 50**



## Section 60 Control of Materials

**60-01 Source of supply and quality requirements.** The materials used in the work shall conform to the requirements of the contract, plans, and specifications. Unless otherwise specified, such materials that are manufactured or processed shall be new (as compared to used or reprocessed).

In order to expedite the inspection and testing of materials, the Contractor shall furnish documentation to the RPR as to the origin, composition, and manufacture of all materials to be used in the work. Documentation shall be furnished promptly after execution of the contract but, in all cases, prior to delivery of such materials.

At the RPR's option, materials may be approved at the source of supply before delivery. If it is found after trial that sources of supply for previously approved materials do not produce specified products, the Contractor shall furnish materials from other sources.

The Contractor shall furnish airport lighting equipment that meets the requirements of the specifications; and is listed in AC 150/5345-53, *Airport Lighting Equipment Certification Program and Addendum*, that is in effect on the date of advertisement.

**60-02 Samples, tests, and cited specifications.** All materials used in the work shall be inspected, tested, and approved by the RPR before incorporation in the work unless otherwise designated. Any work in which untested materials are used without approval or written permission of the RPR shall be performed at the Contractor's risk. Materials found to be unacceptable and unauthorized will not be paid for and, if directed by the RPR, shall be removed at the Contractor's expense.

Unless otherwise designated, quality assurance tests will be made by and at the expense of the Owner in accordance with the cited standard methods of ASTM, American Association of State Highway and Transportation Officials (AASHTO), federal specifications, Commercial Item Descriptions, and all other cited methods, which are current on the date of advertisement for bids.

The testing organizations performing on-site quality assurance field tests shall have copies of all referenced standards on the construction site for use by all technicians and other personnel. Unless otherwise designated, samples for quality assurance will be taken by a qualified representative of the RPR. All materials being used are subject to inspection, test, or rejection at any time prior to or during incorporation into the work. Copies of all tests will be furnished to the Contractor's representative at their request after review and approval of the RPR.

A copy of all Contractor QC test data shall be provided to the RPR daily, along with printed reports, in an approved format, on a weekly basis. After completion of the project, and prior to final payment, the Contractor shall submit a final report to the RPR showing all test data reports, plus an analysis of all results showing ranges, averages, and corrective action taken on all failing tests.

The Contractor shall employ a Quality Control (QC) testing organization to perform all Contractor required QC tests in accordance with Item C-100 Contractor Quality Control Program (CQCP).

**60-03 Certification of compliance/analysis (COC/COA).** The RPR may permit the use, prior to sampling and testing, of certain materials or assemblies when accompanied by manufacturer's COC

stating that such materials or assemblies fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer. Each lot of such materials or assemblies delivered to the work must be accompanied by a certificate of compliance in which the lot is clearly identified. The COA is the manufacturer's COC and includes all applicable test results.

Materials or assemblies used on the basis of certificates of compliance may be sampled and tested at any time and if found not to be in conformity with contract requirements will be subject to rejection whether in place or not.

The form and distribution of certificates of compliance shall be as approved by the RPR.

When a material or assembly is specified by "brand name or equal" and the Contractor elects to furnish the specified "or equal," the Contractor shall be required to furnish the manufacturer's certificate of compliance for each lot of such material or assembly delivered to the work. Such certificate of compliance shall clearly identify each lot delivered and shall certify as to:

- a. Conformance to the specified performance, testing, quality or dimensional requirements; and,
- b. Suitability of the material or assembly for the use intended in the contract work.

The RPR shall be the sole judge as to whether the proposed "or equal" is suitable for use in the work.

The RPR reserves the right to refuse permission for use of materials or assemblies on the basis of certificates of compliance.

**60-04 Plant inspection.** The RPR or their authorized representative may inspect, at its source, any specified material or assembly to be used in the work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the work and to obtain samples required for acceptance of the material or assembly.

Should the RPR conduct plant inspections, the following conditions shall exist:

- a. The RPR shall have the cooperation and assistance of the Contractor and the producer with whom the Contractor has contracted for materials.
- b. The RPR shall have full entry at all reasonable times to such parts of the plant that concern the manufacture or production of the materials being furnished.
- c. If required by the RPR, the Contractor shall arrange for adequate office or working space that may be reasonably needed for conducting plant inspections. Place office or working space in a convenient location with respect to the plant.

It is understood and agreed that the Owner shall have the right to retest any material that has been tested and approved at the source of supply after it has been delivered to the site. The RPR shall have the right to reject only material which, when retested, does not meet the requirements of the contract, plans, or specifications.

**60-05 Engineer/ Resident Project Representative (RPR) field office.** The Engineer/RPR field office, if required, shall be as indicated in C-105, Mobilization.

**60-06 Storage of materials.** Materials shall be stored to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located to facilitate their prompt inspection. The Contractor shall coordinate the storage of all materials with the RPR. Materials to be stored on airport property shall not create an obstruction to air navigation nor shall they interfere with the free and

unobstructed movement of aircraft. Unless otherwise shown on the plans and/or CSPP, the storage of materials and the location of the Contractor's plant and parked equipment or vehicles shall be as directed by the RPR. Private property shall not be used for storage purposes without written permission of the Owner or lessee of such property. The Contractor shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the Contractor shall furnish the RPR a copy of the property Owner's permission.

All storage sites on private or airport property shall be restored to their original condition by the Contractor at their expense, except as otherwise agreed to (in writing) by the Owner or lessee of the property.

**60-07 Unacceptable materials.** Any material or assembly that does not conform to the requirements of the contract, plans, or specifications shall be considered unacceptable and shall be rejected. The Contractor shall remove any rejected material or assembly from the site of the work, unless otherwise instructed by the RPR.

Rejected material or assembly, the defects of which have been corrected by the Contractor, shall not be returned to the site of the work until such time as the RPR has approved its use in the work.

**60-08 Owner furnished materials.** The Contractor shall furnish all materials required to complete the work, except those specified, if any, to be furnished by the Owner. Owner-furnished materials shall be made available to the Contractor at the location specified.

All costs of handling, transportation from the specified location to the site of work, storage, and installing Owner-furnished materials shall be included in the unit price bid for the contract item in which such Owner-furnished material is used.

After any Owner-furnished material has been delivered to the location specified, the Contractor shall be responsible for any demurrage, damage, loss, or other deficiencies that may occur during the Contractor's handling, storage, or use of such Owner-furnished material. The Owner will deduct from any monies due or to become due the Contractor any cost incurred by the Owner in making good such loss due to the Contractor's handling, storage, or use of Owner-furnished materials.

## END OF SECTION 60

## Section 70 Legal Regulations and Responsibility to Public

**70-01 Laws to be observed.** The Contractor shall keep fully informed of all federal and state laws, all local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. The Contractor shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees; and shall protect and indemnify the Owner and all their officers, agents, or servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor or the Contractor's employees.

**70-02 Permits, licenses, and taxes.** The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful execution of the work.

**70-03 Patented devices, materials, and processes.** If the Contractor is required or desires to use any design, device, material, or process covered by letters of patent or copyright, the Contractor shall provide for such use by suitable legal agreement with the Patentee or Owner. The Contractor and the surety shall indemnify and hold harmless the Owner, any third party, or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the Owner for any costs, expenses, and damages which it may be obliged to pay by reason of an infringement, at any time during the execution or after the completion of the work.

**70-04 Restoration of surfaces disturbed by others.** The Owner reserves the right to authorize the construction, reconstruction, or maintenance of any public or private utility service, FAA or National Oceanic and Atmospheric Administration (NOAA) facility, or a utility service of another government agency at any time during the progress of the work. To the extent that such construction, reconstruction, or maintenance has been coordinated with the Owner, such authorized work (by others) must be shown on the plans and is indicated as follows:

<u>Utility</u>	<u>Location (Sheet No.)</u>	<u>Person to Contact</u>	<u>Phone No.</u>
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Not Applicable

Except as listed above, the Contractor shall not permit any individual, firm, or corporation to excavate or otherwise disturb such utility services or facilities located within the limits of the work without the written permission of the RPR.

Should the Owner of public or private utility service, FAA, or NOAA facility, or a utility service of another government agency be authorized to construct, reconstruct, or maintain such utility service or facility during the progress of the work, the Contractor shall cooperate with such Owners by arranging and performing the work in this contract to facilitate such construction, reconstruction or maintenance by others whether or not such work by others is listed above. When ordered as extra work by the RPR, the Contractor shall make all necessary repairs to the work which are due to such authorized work by others,

unless otherwise provided for in the contract, plans, or specifications. It is understood and agreed that the Contractor shall not be entitled to make any claim for damages due to such authorized work by others or for any delay to the work resulting from such authorized work.

**70-05 Federal Participation.** The United States Government has agreed to reimburse the Owner for some portion of the contract costs. The contract work is subject to the inspection and approval of duly authorized representatives of the FAA Administrator. No requirement of this contract shall be construed as making the United States a party to the contract nor will any such requirement interfere, in any way, with the rights of either party to the contract.

**70-06 Sanitary, health, and safety provisions.** The Contractor's worksite and facilities shall comply with applicable federal, state, and local requirements for health, safety and sanitary provisions.

**70-07 Public convenience and safety.** The Contractor shall control their operations and those of their subcontractors and all suppliers, to assure the least inconvenience to the traveling public. Under all circumstances, safety shall be the most important consideration.

The Contractor shall maintain the free and unobstructed movement of aircraft and vehicular traffic with respect to their own operations and those of their own subcontractors and all suppliers in accordance with Section 40, paragraph 40-05, *Maintenance of Traffic*, and shall limit such operations for the convenience and safety of the traveling public as specified in Section 80, paragraph 80-04, *Limitation of Operations*.

The Contractor shall remove or control debris and rubbish resulting from its work operations at frequent intervals, and upon the order of the RPR. If the RPR determines the existence of Contractor debris in the work site represents a hazard to airport operations and the Contractor is unable to respond in a prompt and reasonable manner, the RPR reserves the right to assign the task of debris removal to a third party and recover the resulting costs as a liquidated damage against the Contractor.

**70-08 Construction Safety and Phasing Plan (CSPP).** The Contractor shall complete the work in accordance with the approved Construction Safety and Phasing Plan (CSPP) developed in accordance with AC 150/5370-2, Operational Safety on Airports During Construction. The CSPP is described in the Construction Safety and Phasing Plan, Appendix A to Section 70.

During the work of this Contract, the Owner will make such arrangements to coordinate aircraft movements and Airport operations as necessary to conform to the construction procedures outlined in the Construction Safety and Phasing Plan, and as shown on the Contract Drawings. The Contractor shall give adequate notice to the RPR, so as to afford time to coordinate construction with the Owner.

**70-09 Use of explosives.** The use of explosives is not permitted on this project.

**70-10 Protection and restoration of property and landscape.** The Contractor shall be responsible for the preservation of all public and private property, and shall protect carefully from disturbance or damage all land monuments and property markers until the Engineer/RPR has witnessed or otherwise referenced their location and shall not move them until directed.

The Contractor shall be responsible for all damage or injury to property of any character, during the execution of the work, resulting from any act, omission, neglect, or misconduct in manner or method of executing the work, or at any time due to defective work or materials, and said responsibility shall not be released until the project has been completed and accepted.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the non-execution thereof by the Contractor, the Contractor shall restore, at their expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, or otherwise restoring as may be directed, or the Contractor shall make good such damage or injury in an acceptable manner.

**70-11 Responsibility for damage claims.** The Contractor shall indemnify, defend and hold harmless the Engineer/RPR and the Owner (County of Riverside) and their officers, agents, and employees from all suits, actions, or claims, of any character, brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the Contractor; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the "Workmen's Compensation Act," or any other law, ordinance, order, or decree. Money due the Contractor under and by virtue of their own contract considered necessary by the Owner for such purpose may be retained for the use of the Owner or, in case no money is due, their own surety may be held until such suits, actions, or claims for injuries or damages shall have been settled and suitable evidence to that effect furnished to the Owner, except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he or she is adequately protected by public liability and property damage insurance.

Owner shall timely notify the Contractor of the receipt of any third-party claim, relating to the contract. Owner shall be entitled to recover its reasonable costs incurred in providing such notification.

**70-12 Third party beneficiary clause.** It is specifically agreed between the parties executing the contract that it is not intended by any of the provisions of any part of the contract to create for the public or any member thereof, a third-party beneficiary or to authorize anyone not a party to the contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of the contract.

**70-13 Opening sections of the work to traffic.** If it is necessary for the Contractor to complete portions of the contract work for the beneficial occupancy of the Owner prior to completion of the entire contract, such "phasing" of the work must be specified below and indicated on the approved Construction Safety and Phasing Plan (CSPP) and the project plans. When so specified, the Contractor shall complete such portions of the work on or before the date specified or as otherwise specified.

Opening sections of work to traffic shall be as described in the CSPP.

Upon completion of any portion of work listed above, such portion shall be accepted by the Owner in accordance with Section 50, paragraph 50-14, *Partial Acceptance*.

No portion of the work may be opened by the Contractor until directed by the Owner in writing. Should it become necessary to open a portion of the work to traffic on a temporary or intermittent basis, such openings shall be made when, in the opinion of the RPR, such portion of the work is in an acceptable condition to support the intended traffic. Temporary or intermittent openings are considered to be inherent in the work and shall not constitute either acceptance of the portion of the work so opened or a waiver of any provision of the contract. Any damage to the portion of the work so opened that is not attributable to traffic which is permitted by the Owner shall be repaired by the Contractor at their expense.

The Contractor shall make their own estimate of the inherent difficulties involved in completing the work under the conditions herein described and shall not claim any added compensation by reason of delay or increased cost due to opening a portion of the contract work.

The Contractor must conform to safety standards contained AC 150/5370-2 and the approved CSPP.

Contractor shall refer to the plans, specifications, and the approved CSPP to identify barricade requirements, temporary and/or permanent markings, airfield lighting, guidance signs and other safety requirements prior to opening up sections of work to traffic.

**70-14 Contractor's responsibility for work.** Until the RPR's final written acceptance of the entire completed work, excepting only those portions of the work accepted in accordance with Section 50, paragraph 50-14, *Partial Acceptance*, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part due to the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God such as earthquake, tidal wave, tornado, hurricane or other cataclysmic phenomenon of nature, or acts of the public enemy or of government authorities.

If the work is suspended for any cause whatever, the Contractor shall be responsible for the work and shall take such precautions necessary to prevent damage to the work. The Contractor shall provide for normal drainage and shall erect necessary temporary structures, signs, or other facilities at their own expense. During such period of suspension of work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established planting, seeding, and sodding furnished under the contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

**70-15 Contractor's responsibility for utility service and facilities of others.** As provided in paragraph 70-04, *Restoration of Surfaces Disturbed by Others*, the Contractor shall cooperate with the owner of any public or private utility service, FAA or NOAA, or a utility service of another government agency that may be authorized by the Owner to construct, reconstruct or maintain such utility services or facilities during the progress of the work. In addition, the Contractor shall control their operations to prevent the unscheduled interruption of such utility services and facilities.

To the extent that such public or private utility services, FAA, or NOAA facilities, or utility services of another governmental agency are known to exist within the limits of the contract work, the approximate locations have been indicated on the plans and/or in the contract documents.

<u>Utility Service or Facility</u>	<u>Person to Contract</u>	<u>Telephone No.</u>
Eastern Municipal Water District	Victoria Tautala	(951) 928-3777 ext. 4596

Southern California Edison

It is understood and agreed that the Owner does not guarantee the accuracy or the completeness of the location information relating to existing utility services, facilities, or structures that may be shown on the

plans or encountered in the work. Any inaccuracy or omission in such information shall not relieve the Contractor of the responsibility to protect such existing features from damage or unscheduled interruption of service.

It is further understood and agreed that the Contractor shall, upon execution of the contract, notify the Owners of all utility services or other facilities of their plan of operations. Such notification shall be in writing addressed to "The Person to Contact" as provided in this paragraph and paragraph 70-04, *Restoration of Surfaces Disturbed By Others*. A copy of each notification shall be given to the RPR.

In addition to the general written notification provided, it shall be the responsibility of the Contractor to keep such individual Owners advised of changes in their plan of operations that would affect such Owners.

Prior to beginning the work in the general vicinity of an existing utility service or facility, the Contractor shall again notify each such Owner of their plan of operation. If, in the Contractor's opinion, the Owner's assistance is needed to locate the utility service or facility or the presence of a representative of the Owner is desirable to observe the work, such advice should be included in the notification. Such notification shall be given by the most expeditious means to reach the utility owner's "Person to Contact" no later than two normal business days prior to the Contractor's commencement of operations in such general vicinity. The Contractor shall furnish a written summary of the notification to the RPR.

The Contractor's failure to give the two days' notice shall be cause for the Owner to suspend the Contractor's operations in the general vicinity of a utility service or facility.

Where the outside limits of an underground utility service have been located and staked on the ground, the Contractor shall be required to use hand excavation methods within 3 feet (1 m) of such outside limits at such points as may be required to ensure protection from damage due to the Contractor's operations.

Should the Contractor damage or interrupt the operation of a utility service or facility by accident or otherwise, the Contractor shall immediately notify the proper authority and the RPR and shall take all reasonable measures to prevent further damage or interruption of service. The Contractor, in such events, shall cooperate with the utility service or facility owner and the RPR continuously until such damage has been repaired and service restored to the satisfaction of the utility or facility owner.

The Contractor shall bear all costs of damage and restoration of service to any utility service or facility due to their operations whether due to negligence or accident. The Owner reserves the right to deduct such costs from any monies due or which may become due the Contractor, or their own surety.

**70-16 Furnishing rights-of-way.** The Owner will be responsible for furnishing all rights-of-way upon which the work is to be constructed in advance of the Contractor's operations.

**70-17 Personal liability of public officials.** In carrying out any of the contract provisions or in exercising any power or authority granted by this contract, there shall be no liability upon the Engineer, RPR, their authorized representatives, or any officials of the Owner either personally or as an official of the Owner. It is understood that in such matters they act solely as agents and representatives of the Owner.

**70-18 No waiver of legal rights.** Upon completion of the work, the Owner will expeditiously make final inspection and notify the Contractor of final acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the Owner be precluded or stopped from recovering from the Contractor



or their surety, or both, such overpayment as may be sustained, or by failure on the part of the Contractor to fulfill their obligations under the contract. A waiver on the part of the Owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor, without prejudice to the terms of the contract, shall be liable to the Owner for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Owner's rights under any warranty or guaranty.

**70-19 Environmental protection.** The Contractor shall comply with all federal, state, and local laws and regulations controlling pollution of the environment. The Contractor shall take necessary precautions to prevent pollution of streams, lakes, ponds, and reservoirs with fuels, oils, asphalts, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.

The Contractor shall perform all testing, removal of contaminated material, transportation, treatment, remediation, and disposal of contaminated materials which are the result of a spill or release caused by the Contractor, and he shall provide and properly place materials to restore the property to its original condition, all to the Owner's satisfaction and at the Contractor's expense. Refer to the subsection 70-10 titled PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE of this section.

A. Air Pollution

1. No burning of combustible waste shall be permitted.
2. Alternatives to Burning Land Cleared Material.
  - a. All spoil material from clearing and grubbing operations shall be disposed of in accordance with the Technical Specifications, unless otherwise directed.
  - b. Wood may be salvaged for firewood or commercial use or it may be chipped and disposed of for use as mulch.
  - c. Logs, brush, etc. may be removed to an authorized disposal area or disposed of to the general public without charge.
3. Dust Control.
  - a. Common construction operations which may cause excessive dust include:
    - 1) Quarry, drilling and rock crushing.
    - 2) Clearing, grubbing and stripping.
    - 3) Excavation and placement of embankment.
    - 4) Cement and aggregate handling.
    - 5) Cement or lime stabilization.
    - 6) Blasting.
    - 7) Use of haul roads.
    - 8) Sandblasting or grinding.
  - b. Other construction operations which may cause air pollution are:
    - 1) Volatiles escaping from asphalt and cut back materials.
    - 2) Use of herbicides or fertilizers.

- 3) Smoke from asphalt plants or heater/planers.
- c. Control of Dust and Other Air Pollutants shall be the responsibility of the Contractor and may include the following control methods:
  - 1) Drilling apparatus equipped with water or chemical dust controlling systems.
  - 2) Exposing the minimum area of land.
  - 3) Applying temporary mulch with or without seeding.
  - 4) Use of water sprinkling trucks.
  - 5) Use of covered haul trucks.
  - 6) Use of stabilizing agents in solution.
  - 7) Use of dust palliative and penetration asphalt on temporary roads.
  - 8) Use of wood chips in traffic or work areas.
  - 9) Use of vacuum equipped sandblasting systems.
  - 10) Use of plastic sheet coverings.
  - 11) Restricting the application rate of herbicides to recommended dosage. Materials should be covered and protected from the elements. Application, equipment and empty containers shall not be rinsed and discharged to a stream, etc. or allowed to enter the groundwater.
  - 12) Use dust control measures at bituminous mixing plants, and quarry operations.
  - 13) Delay operations until climate or wind conditions dissipate or inhibit the potential pollutants in a manner satisfactory to the RPR.

#### B. Water Pollution

1. The Contractor shall use suitable precautions to minimize water pollution during the progress of the work. Erosion control devices or methods may consist of berms, dikes, dams, drains, sediment basins, fiber mats, woven plastic filter cloths, gravel, mulches, quick growing grasses, sod, bituminous spray or other control devices.
2. The amount of surface area of erodible earth at any one time shall not exceed the area allowed by permit.
3. Pollutants such as fuels, lubricants, bitumens, raw sewage and other harmful materials shall not be discharged into or near rivers, streams, and impoundments or into natural or man-made channels leading thereto. Wash water or waste from concrete mixing and curing operations should not be allowed to enter streams, etc.

In the event of conflict between these requirements and pollution control laws, rules or regulations or other Federal, State or local agencies, the more restrictive laws, rules, or regulations shall apply.

**70-20 Archaeological and historical findings.** Unless otherwise specified in this subsection, the Contractor is advised that the site of the work is not within any property, district, or site, and does not contain any building, structure, or object listed in the current National Register of Historic Places published by the United States Department of Interior.

Should the Contractor encounter, during their operations, any building, part of a building, structure, or object that is incongruous with its surroundings, the Contractor shall immediately cease operations in that

location and notify the RPR. The RPR will immediately investigate the Contractor's finding and the Owner will direct the Contractor to either resume operations or to suspend operations as directed.

Should the Owner order suspension of the Contractor's operations in order to protect an archaeological or historical finding, or order the Contractor to perform extra work, such shall be covered by an appropriate contract change order or supplemental agreement as provided in Section 40, paragraph 40-04, *Extra Work*, and Section 90, paragraph 90-05, *Payment for Extra Work*. If appropriate, the contract change order or supplemental agreement shall include an extension of contract time in accordance with Section 80, paragraph 80-07, *Determination and Extension of Contract Time*.

**70-21 Insurance Requirements.** Contractors attention directed to Article 11 in the Special Conditions for Insurance Requirements. Additional insurance requirements for FAA projects are stated below.

- A. Anti-subrogation applies to General Liability and to Automobile Liability insurance coverages.
- B. The Certificate Holder shall be the County of Riverside and C&S Engineers, Inc.
- C. The following shall be named as Additional Insureds: County of Riverside; C&S Engineers, Inc; the Federal Aviation Administration.
- D. The insurance company providing General Liability insurance coverage acknowledges that the Contractor has agreed in this Contract to defend, hold harmless, and indemnify the Owner, the Engineer, the RPR, and their respective directors, officers, representatives, and employees as set forth in this Section.
- E. The Contractor's policies shall provide coverage for contractual liability imposed by contract, including this Contract, and completed operations liability for damages imposed by law arising between the date of the certification of completion of the work and the date of the expiration of the Contractor's guarantee.
- F. Contractor's policy shall provide coverage for liability arising out of the acts or omissions of its Subcontractors.
- G. Each Subcontractor employed on the Project site by the Contractor shall provide comprehensive liability insurance in accordance with the above-described requirements of the Contractor. Such insurance requirements shall be submitted to the RPR as part of the Subcontractor approval process.

## END OF SECTION 70

**ATTACHMENT “A”**

**TO**

**SECTION 70-08**

**CONSTRUCTION SAFETY AND  
PHASING PLAN (CSPP)**

**FOR THE CONSTRUCTION OF  
APRON PAVEMENT REHABILITATION**

**AT**

**FRENCH VALLEY AIRPORT  
MURRIETA, CALIFORNIA**

**FAA AIP NO.: 3-06-0338-034-2022 (DESIGN)**

**OCTOBER, 2024**

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## **CONSTRUCTION SAFETY AND PHASING PLAN (CSPP)**

### **1.0 PURPOSE.**

Aviation safety is the primary consideration at airports, especially during construction. The Airport Owner's Construction Safety and Phasing Plan (CSPP) and the Contractor's Safety Plan Compliance Document (SPCD) are the primary tools to ensure safety compliance when coordinating construction activities with airport operations. These documents identify all aspects of the construction project that pose a potential safety hazard to airport operations and outline respective mitigation procedures for each hazard.

The CSPP sets forth benchmarks and requirements for the project to help ensure the highest levels of safety, security and efficiency at the airport at the time of construction. Requirements for this CSPP were developed from FAA Advisory Circular (AC) 150/5370-2 Operational Safety on Airports During Construction, latest edition.

The CSPP is a standalone document, written to correspond with the safety and security requirements set forth in the AC, the airport safety and security requirements, and local codes and requirements. The CSPP is to be used by all personnel involved in the project. The CSPP covers the actions of not only the construction personnel and equipment, but also the action of inspection personnel and airport staff.

This document has been developed in order to minimize interruptions to airport operations, reduce construction costs, and maximize the performance and safety of construction activity. Strict adherence to the provisions of the CSPP by all personnel assigned to or visiting the construction site is mandatory.

The Contractor shall submit a Safety Plan Compliance Document (SPCD) to the Airport Owner describing how the Contractor will comply with the requirements set forth in this CSPP. The SPCD must be submitted to the Airport Owner prior to issuance of Notice to Proceed.

In the event the Contractor's activities are found in non-compliance with the provisions of the CSPP or the SPCD, the Airport Owner's Representative will direct the Contractor, in writing, to immediately cease those operations in violation. In addition, a safety meeting will be conducted for the purpose of reviewing those provisions in the CSPP/SPCD which were violated. The Contractor will not be allowed to resume any construction operations until conclusion of the safety meeting and all corrective actions have been implemented.

### **2.0 SCOPE OF PROJECT AND CSPP.**

The proposed project generally includes demolition and reconstruction of the middle apron (Base Bid), pavement rehabilitation of the north apron via crack seal, full depth crack repair, and seal coat (Bid Alt #1), and pavement rehabilitation of the south apron via crack seal and seal coat (Bid Alt #2). No grading of shoulders or improvements outside of the existing pavement limits is anticipated, and no drainage improvements or BMP development is anticipated.

Safety, maintaining aircraft operations, and construction costs are all interrelated. Since safety must not be compromised, the Airport Owner must strike a balance between maintaining aircraft operations and construction costs. This balance will vary widely depending on the operational needs and resources of the airport and will require early coordination with airport users and the FAA. As the project design progresses, the necessary construction locations, activities and associated costs will be identified. As they are identified, their impact to airport operations must be assessed. Adjustments are made to the proposed construction activities, often by phasing the project and/or to airport operations in order to maintain operational safety. This planning effort will ultimately result in a project CSPP. The development of the CSPP takes place through the following five steps:

- a. Identify Affected Areas
- b. Describe Current Operations
- c. Allow for Temporary Changes to Operations
- d. Take Required Measures to Revise Operations
- e. Manage Safety Risk

### 3.0 PLAN REQUIREMENTS.

**3.1 COORDINATION.** The following items shall be coordinated as required:

- a. **Pre-construction Meeting.** A preconstruction meeting will be conducted to discuss operational safety, testing, quality control, quality acceptance, security, safety, labor requirements, environmental factors, and other issues. All parties affected by the construction will be asked to attend including, but not limited to, the Airport Owner, tenants, contractor, subcontractors and RPR.

At the preconstruction meeting, the Contractor shall submit a plan of operation and schedule of work to the RPR for approval. The Contractor's plan of operation shall indicate, in detail, the amount of construction planned and the number of shifts and/or overtime operations proposed for the project. The schedule of work shall clearly indicate the sequence of work to be performed. The Contractor shall conform, at all times, to the requirements of these provisions and with current safety practices, rules, regulations and security requirements of Airport Owner. The preconstruction meeting will be held prior to issuance of a Notice to Proceed.

- b. **Contractor Progress Meetings.** A minimum of one progress meeting to discuss scheduling and coordination shall be held each week unless otherwise directed by the Airport Owner, throughout the duration of the Contract, between the Airport Owner, Contractor, RPR and any other interested parties at a time and place to be designated by the RPR. These meetings shall include a detailed discussion of construction phasing and safety with regard to the Contractor's compliance with the requirements stipulated in the Contract Documents.

In attendance at these meetings shall be a Contractor's representative with the authority to make decisions concerning the scheduling and coordination of work. Progress meetings shall be facilitated by the RPR. Operational safety shall be a standing agenda item during progress meetings throughout the construction project.

- c. **Scope or Schedule Changes.** Changes in the Scope of Work or Project Schedule shall be governed by Section 40 and Section 80 of the Contract Documents. Any proposed change that results in a deviation from the established CSPP as expressed by the Contract Documents must be submitted to the FAA and Airport Owner for review and approval. FAA review and approval can be expected to take sixty business days.
- d. **FAA ATO Coordination.** No adjustments to NAVAID, encroachment on facility critical areas, or facility shutdowns are anticipated during construction, so ATO coordination will not be necessary.
- e. **Pre-Paving Meeting.** If paving is included in this project, a pre-paving meeting will be held to discuss the status of preliminary submittals, the RPR's inspection of the plant and laboratory, test section requirements, paving plan requirements, and production requirements.
- f. **Payment.** The cost of complying with the requirements of this section, including but not limited to scheduling; providing flag people; construction, maintenance and removal of staging areas; providing, placing, relocating, maintaining and removing temporary barricades; protection of aircraft and vehicular traffic; installation, maintenance and removal of temporary airfield markings; maintenance of



airport lighting circuits; cleaning of paved surfaces; restoration of surfaces disturbed as a result of the Contractor's operations; providing, maintaining, and removing warning signs, hazard markings, barricade lights; providing, maintaining, and removing temporary access gates; providing padlocks for access gates; providing a guard at access gates; and all security requirements shall be included under Technical Specification Item C-106, Safety, Security and Maintenance of Traffic.

### 3.2 PHASING.

#### a. Phase Elements (Work Areas)

**Work Area Descriptions:** The work of the project has been divided into three (3) phases with nine (9) work areas in order to coordinate construction in a way that will minimize interference with Airport operations:

**Project Access:** Primary Access to all work areas shall be from the south access gate immediately off of Sky Canyon Drive. The Contractor's staging area is accessed from the access gate immediately off of Sky Canyon Drive. See sheet GC101 of the Contract Drawings.

#### Phase 1: Base Bid

- a. **Work Area "1A":** Work includes the southern portion of the middle apron. Work shall include pavement removal, grading, constructing new pavement, markings, and new tie-downs. Aircraft using tie-downs in this work area will need to relocate to tie-downs located on the northern portion of the apron. The contractor will be allowed 28 consecutive calendar days to complete this work.
- b. **Work Area "1B":** Work in area 1B shall be started after Work Area 1A is complete. Work includes the middle portion of the middle apron. Work includes pavement removal, grading, constructing new pavement, markings, and new tie-downs. Aircraft using tie-downs in this work area will need to relocate to tie-downs located on the northern portion of the apron. The contractor will be allowed 28 consecutive calendar days to complete this work.
- c. **Work Area "1C":** Work in area 1C shall be started after Work Area 1B is complete. Work includes the northern portion of the middle apron. Work includes pavement removal, grading, constructing new pavement, markings, and new tie-downs. Aircraft using tie-downs in this work area will need to relocate to tie-downs located on the northern or southern portions of the apron. The contractor will be allowed 35 consecutive calendar days to complete this work.

Approximately 3-4 months after work is complete, contractor shall fog seal reconstruction areas and remark over all markings and mark black outlines for centerlines. The contractor will be allowed 1 calendar day per work area to complete this work.

#### Phase 2: Bid Alt #1

- a. **Work Area "2A":** Work in area 2A shall be started after Work Area 1C is complete. Work shall include the southern portion of the north apron. Work shall include pavement patching, crack filling, seal coat, and markings. Aircraft using tie-downs in this work area will need to relocate to tie-downs located on the middle apron or northern portions of the north apron. The contractor will be allowed 10 consecutive calendar days to complete this work.
- b. **Work Area "2B":** Work in area 2B shall be started after Work Area 2A is complete. Work shall include the middle portion of the north apron. Work shall include pavement patching, crack filling, seal coat, and markings. Aircraft using tie-downs in this work area will need to

relocate to tie-downs located on the middle apron or northern portions of the north apron. The contractor will be allowed 10 consecutive calendar days to complete this work.

- c. **Work Area “2C”:** Work in area 2C shall be started after Work Area 2B is complete. Work shall include the northern portion of the north apron. Work shall include pavement patching, crack filling, seal coat, and markings. Aircraft using tie-downs in this work area will need to relocate to tie-downs located on the middle apron or southern portions of the north apron. The contractor will be allowed 10 consecutive calendar days to complete this work.
- d. **Work Area “2D”:** Work in area 2D shall be started after Work Area 2C is complete. Work shall include the middle portion of the north apron. Work shall include pavement patching, crack filling, seal coat, and markings. Aircraft using tie-downs in this work area will need to relocate to tie-downs located on the middle apron or southern portions of the north apron. The contractor will be allowed 10 consecutive calendar days to complete this work.
- e. **Work Area “2E”:** Work in area 2E shall be started after Work Area 2D is complete. Work shall include the northern haul route. Work shall include pavement removal, grading, and constructing new pavement. The contractor will be allowed 5 consecutive calendar days to complete this work. Approximately 3-4 months after work is complete, contractor shall fog seal Work Area 2E.

### **Phase 3: Bid Alt #2**

- a. **Work Area “3A”:** Work in area 3A shall be started after Work Area 2D is complete. Work shall include the northern portion of the south apron. Work shall include crack filling, seal coat, and markings. Aircraft using tie-downs in this work area will need to relocate to tie-downs located on the middle apron or north apron. The contractor will be allowed 4 consecutive calendar days to complete this work.
- b. **Work Area “3A-Night”:** Work in area 3A-Night shall be started after Work Area 3A is complete. This work shall be completed during nighttime hours while a southern portion of Taxiway A is closed (6:00pm to 6:00am). Low profile barricades used for the work area shall remain for the duration of the construction in the work area. Work shall include the northern portion of the south apron. Work shall include crack filling, seal coat, and markings. Aircraft using tie-downs in this work area will need to relocate to tie-downs located on the middle apron or north apron. The contractor will be allowed 1 calendar night to complete this work.
- c. **Work Area “3B”:** Work in area 3B shall be started after Work Area 3A-Night is complete. Work shall include the southern portion of the south apron. Work shall include crack filling, seal coat, and markings. Aircraft using tie-downs in this work area will need to relocate to tie-downs located on the middle apron or north apron. The contractor will be allowed 4 consecutive calendar days to complete this work.
- d. **Work Area “3B-Night”:** Work in area 3B-Night shall be started after Work Area 3B is complete. This work shall be completed during nighttime hours while the southern portion of Taxiway A, southern Taxiway A connector, and Taxiway B connector are closed (6:00pm to 6:00am). Lighted taxiway closure markers used for Taxiway closure shall be placed and removed each night. Low profile barricades used for the work area shall remain for the duration of the construction in the work area. Work shall include the southern portion of the south apron. Work shall include crack filling, seal coat, and markings. Aircraft using tie-downs in this work area will need to relocate to tie-downs located on the middle apron or north apron. The contractor will be allowed 1 calendar night to complete this work.

#### **Phase 4: Bid Alt #3**

- a. Work Area 4: Work in area 4 includes removing two existing above ground fire hydrant systems and replacing them with flush mounted hydrants (Bid Alternate #3). Work in area 4 shall be started after Work Area 3B is complete or concurrently with Work Areas 2C and 2D. The contractor will be allowed 14 consecutive calendar days to complete this work.

#### **b. Construction Safety Requirements**

The Contractor shall obtain approval from the RPR prior to beginning any work in all areas of the airport. No work is expected on runways or taxiways during this project. No active runway or taxiway shall be crossed, entered, or obstructed at any time. The Contractor shall plan and coordinate his/her work in such a manner as to ensure safety and a minimum of hindrance to airport operations. All Contractor equipment and material stockpiles shall be stored at locations determined during construction or as shown on the Construction Safety Drawings (Appendix 1). No equipment will be allowed to park within the approach area of an active runway at any time.

During the work under this Contract, the Airport Owner will make such arrangements to coordinate aircraft movements and Airport operations as necessary to conform to the construction procedures as outlined below and as shown on the Contract Drawings. The Contractor shall give adequate notice to the RPR, so as to afford time to coordinate construction with the Airport Owner. No work shall proceed in any area without prior approval.

The Contractor shall always confine construction operations to the Contractor work area and designated haul routes. Contractor personnel, equipment, stored materials, subcontractors and suppliers will not be allowed on any other area within the Air Operations Area and within the Airport boundaries without prior approval of the Airport Owner or RPR.

The RPR will perform a visual site assessment before the Contractor occupies the Contractor work area. The Contractor shall be held responsible for all repairs and cleanup costs incurred as a result of the Contractor's construction operations. Restoration shall be the complete return of all work areas to the original conditions.

Prior to the start of construction operations, the Contractor shall perform the following:

- Coordinate issuing Notices to Airmen (NOTAM) with the Airport Owner and RPR for the construction activities involved at least 48 hours in advance of the work.
- Install barricades and other measures as indicated on the Construction Safety Phasing Drawings or as required during construction.
- Install necessary measures for soil erosion and sediment control in accordance with Item C-102

At the conclusion of construction operations, the Contractor shall perform the following:

- Remove barricades as indicated on the Construction Safety Drawings.
- Clean all paved surfaces in accordance with Item C-106, Safety, Security and Maintenance of Traffic.
- Coordinate cancellation of the NOTAMs with the Airport Owner and RPR.

**All Work Areas:**

At the start of work in all work areas, the Contractor shall perform the following:

- Verify with the Airport Owner that a NOTAM has been issued closing the current work area.
- Verify with the Airport Owner that a NOTAM has been issued temporarily terminating the southern portion of Taxiway A, southern Taxiway A connector, and Taxiway B, when constructing in area 3A-Night.
- Provide lighted taxiway closure markers at areas shown on the Contract Drawings when constructing in areas 3A-Night.
- Provide temporary barricades delineating the proposed project area and at areas shown on the Contract Drawings.

At the end of work in all work areas, the Contractor shall perform the following:

- Receive permission from the Airport Manager to re-open the section of the apron.
- Remove temporary barricade delineating the proposed project area.
- Clean all paved surfaces in accordance with Item C-106, Safety, Security and Maintenance of Traffic.

Before the taxiways are re-opened each morning during work areas 3A-Night and 3B-Night, the Contractor shall perform the following:

- Remove lighted taxiway closure markers.
- Coordinate cancellation of any applicable NOTAMs with the owner.

**c. Construction Safety Drawings.**

Drawings specifically indicating operational safety procedures and methods in affected areas (i.e., construction safety drawings) have been developed for each construction phase. Such drawings are included in the CSPP as referenced attachments and are included in the contract drawing package.

**3.3 AREAS AND OPERATIONS AFFECTED BY THE CONSTRUCTION ACTIVITY.**

Contractor, subcontractor, and supplier employees or any other unauthorized persons shall be restricted from entering an active airport operating area without previous permission from the Airport Owner.

In an emergency situation, the Airport Owner or other designated airport representative may order the Contractor to suspend operations; move personnel, equipment, and materials to a safe location; and stand by until aircraft use is completed.

The Contractor shall cooperate with the airport users through the RPR, in coordination with airport operations, in scheduling the operations to provide adequate clearance for safe aircraft parking, fueling, maintenance, loading or unloading, maneuvering, taxing operations, or other aircraft operations.

**a. Identification of Affected Areas**

The impacts to Airport Operations Areas are identified in the drawings included in Appendix 1.

**b. Mitigation of Effects.**

This CSPP has established specific requirements and operational procedures necessary to maintain the safety and efficiency of airport operations during the construction of this project.

All coordination pertaining to airport operations during construction will go through the Airport Owner's Representative and the Airport Operations Manager. Any required NOTAM's to be issued will be sent through the Airport Owner's Representative and issued by Airport Operations.

- 1. Temporary Changes to runway and/or taxiway operations:** Any affected Airport Operations Areas identified in the previous section for reduced access or identified as being closed entirely to aircraft traffic, will be barricaded by the use of low profile, lighted barricades placed as shown in the exhibits provided in Appendix 1. In addition, required NOTAM's shall be issued on the various temporary changes to aircraft access through the affected areas.
- 2. Maintenance of essential utilities:** Special attention shall be given to preventing unscheduled interruption of utility services and facilities. Where required due to construction purposes, the Airport Owner and FAA shall locate all of their underground utilities. It is the Contractor's responsibility to have the locations of cabling and other underground utilities marked prior to beginning excavation. Any locations provided by the Airport Owner or FAA are approximate locations and the Contractor shall verify all locations prior to beginning excavations. When an underground cable or utility is damaged due to the Contractor's negligence the Contractor shall immediately repair the affected cable or utility at his/her own expense. Full coordination between airport staff, field inspectors, and construction personnel will be exercised to ensure that all airport power and control cables are fully protected prior to any excavation.

**3.4 NAVIGATION AID (NAVAID) PROTECTION.**

Construction activities, materials/equipment storage, and vehicle parking near electronic NAVAIDs are not anticipated in this project.

**3.5 CONTRACTOR ACCESS.**

This section of the CSPP details the areas to which the Contractor must have access, and how Contractor personnel will access those project work areas.

**a. Location of stockpiled construction materials.**

The Contractor shall store material and equipment and schedule his operations for work to be done so that no unauthorized interference to normal Airport operations will result. Construction operations shall not be conducted in a manner to cause interference with Airport Operations. Stockpiled materials and equipment storage are not permitted within the Runway Safety Area/ Taxiway Safety Area (RSA/TSA), Obstacle Free Zone (OFZ) or Object Free Area (OFA) of an operational runway or taxiway. Stockpiled construction materials must be located inside the Contractor staging area as shown on the Construction Safety Drawings (Appendix 1) unless otherwise approved by the RPR.

Stockpiled material shall be constrained in a manner to prevent movement resulting from either aircraft jet blast or wind conditions in excess of ten miles per hour. In addition, stockpiled material shall have silt

fence located around the material to prevent Foreign Object Debris (FOD) from moving onto the airfield pavements or polluting watercourses.

Open trenches exceeding 3 inches in depth and 5 inches in width or stockpiled material are not permitted within the limits of safety areas of operational runways or taxiways. Stockpiled material shall not be permitted within the protected areas of the runways, or allowed to penetrate into any of the protected airspace.

Spoil and Disposal Areas: Spoil shall be disposed of offsite by the Contractor unless otherwise shown or specified. The Contractor shall submit the "Spoils Deposition Release Form" for any spoils which are transported from the project site. A copy of the form can be found in Appendix 4. No direct payment will be made for spoiling and disposal operations. The cost of spoiling material on site, or of spoiling material off-site, shall be considered incidental to this Contract and the costs shall be included in the various pay items involved.

**b. Vehicle and pedestrian operations. Vehicle and pedestrian access routes for airport construction projects must be controlled to prevent inadvertent or unauthorized entry of persons, vehicles, or animals onto the Air Operations Area (AOA).**

The Airport Owner will coordinate requirements for vehicle operations with the affected airport tenants. Specific vehicle and pedestrian requirements for this project are as follows:

All construction vehicles and personnel shall be restricted to the immediate work areas specified by the contract for this project. These areas include the haul routes into the work area, the designated Contractor staging area and the apron area under construction. Use of alternate haul routes or staging areas by the Contractor shall not be permitted without prior notification and approval by the Airport Owner's Representative.

**1. Construction Site Parking:**

The Contractor's personal vehicle parking area shall be in the parking lot located outside of the terminal building. Contractor personal vehicles will not be allowed inside the airport fence Air Operations Area (AOA) or secured area.

A staging area, as indicated on the Contract Drawings, will be provided where the Contractor may set up a field office and store equipment and materials. The Contractor shall make his own arrangements for, and bear all costs of required utilities. The Contractor shall use and maintain the site in accordance with requirements of the Airport Owner. Upon completion of work, the Contractor's staging area shall be removed and the area cleaned and restored to original or better condition.

**2. Construction Equipment Parking:**

The Contractor's equipment storage area shall be in the Contractor staging area as shown on the Construction Safety Drawings (Appendix 1). The Contractor's equipment and construction vehicles shall be restricted to the construction site or storage areas during construction and parked in the equipment storage area during non-working periods. Maximum allowable equipment height in the staging area shall be 25 feet. Maximum allowable equipment height in the work areas shall be 25 feet. Maximum allowable equipment height at the borrow area shall be 25 feet.

Contractor must service all construction vehicles within the limits of the project work area or the Contractor's Staging Area. Parked construction vehicles must be outside the OFA and never in the safety area of an active runway or taxiway.

### **3. Access and Haul Roads:**

The Contractor shall clear, construct and maintain haul routes as required for the prosecution of the work. The haul routes and access points shall only be in the locations approved by the RPR and the Airport Owner or as shown on the Construction Safety Drawings (Appendix 1).

Access or haul routes used by Contractor vehicles must be clearly marked to prevent inadvertent entry to areas open to airport operations. Construction traffic must remain on the designated haul routes, never straying from the approved paths. The Contractor shall fully describe the appropriate access routes to all his/her employees, subcontractors and material delivery personnel.

The Contractor shall be responsible for maintaining existing haul routes. At the completion of the project, these areas shall be returned to their original lines and grades and shall be restored to a condition equal to or better than original. All non-paved areas that are disturbed by Contractor's haul roads, staging area, etc., located outside of the seeding limits shown on the plans shall be re-seeded and restored to their original or better condition by the Contractor at no additional cost to the Airport Owner.

The Contractor shall control and coordinate the material (supplies) that are hauled to and from work areas. Delivery of equipment and materials to the area of work shall be by way of the access route shown on the Construction Safety Drawings (Appendix 1) or designated by the Airport Owner or RPR.

The Contractor shall maintain all haul routes and work areas in a dust free condition at all times. The Contractor shall control dust from the construction operations by vacuum type sweeping, watering or other methods as approved by the RPR. Contractor shall have equipment (in operating condition) on site, at all times, to control dust. If the Contractor fails to comply with this requirement, construction will be suspended until a plan for controlling the dust is approved by the RPR. Landside haul routes, boulevards and drives shall be kept clean by use of a vacuum sweeper on a daily basis as required. Application of water on dirt or gravel haul routes must be provided as often as necessary. Haul roads in any airport traffic areas must be especially monitored for dust and debris to prevent any potential Foreign Object Debris (FOD) situations.

The existing perimeter road shall remain open and accessible for airport personnel at all times.

Portions of the project area(s) shall be bounded by the low profile barricades identifying Contractor personnel and vehicle area operation limits. The locations of any barricaded project limits, haul routes, Contractor Staging Areas, and associated safety and security details are also provided graphically in the attached exhibits.

### **4. Marking and Lighting of Vehicles:**

When any vehicle or piece of equipment, other than one that has prior approval from the Airport Owner, must operate on an airport, it shall be escorted and properly identified.

The Contractor shall limit access within the airport security fence to authorized vehicles. Private vehicles of the Contractor's personnel must be parked outside the airport security fence and will not be allowed within the airport security fence at any time.

All vehicles operating on the airport and in the general vicinity of the safety area or in aircraft movement areas must be marked with flashing yellow/amber beacons or orange and white flags during

daylight hours. During hours of darkness or low visibility they shall be marked with at least flashing yellow/amber beacons.

Beacons and flags must be maintained to standards and in good working and operational condition. Beacons must be located on the uppermost part of the vehicle structure, visible from any direction, and flash 75 +/- 15 flashes per minute. Flags shall be 3' by 3' with alternating 1' by 1' international orange and white squares, and shall be replaced by the Contractor if they become faded, discolored, or ragged as determined by Airport Operations or the Airport Owner's Representative.

**5. Description of Proper Vehicle Operations:**

The Contractor shall be required to follow guidance on the additional identification and control of construction equipment per the Airport's Security Plan. No Contractor's vehicle or pedestrian crossing of active runways or taxiways will be allowed at any time during the work of this Contract, unless otherwise specified. No deviation from the pedestrian and vehicle routes to and from the Project Areas will be allowed unless specific permission has been granted by the Airport Owner.

The ground movement of aircraft shall have the right-of-way at all times, and the Contractor's vehicles and equipment shall yield to aircraft at all times.

**6. Required Escorts:**

At no time will vehicles or personnel enter portions of the secure AOA outside the contract area unless coordinated with the RPR.

At no time shall active taxiways or taxilanes be crossed by construction equipment without notification and proper approval/clearance from radio-trained gate guards or Airport Operations.

**7. Training Requirements for Vehicle Drivers:**

Driver training and specific requirements will be given during the preconstruction meeting.

**8. Situational Awareness:**

Aircraft traffic will continue to use existing runways, aprons, and taxiways of the Airport during the time that work under a contract is being performed. The Contractor shall, at all time, conduct the work as to create no hindrance, hazard, or obstacle to aircraft using the Airport.

Vehicle drivers must confirm by personnel observation that no aircraft is approaching their position (either in the air or on the ground) when given clearance to cross a taxiway, or any other area open to airport operations.

**9. Two-way Radio Communication Procedures:**

No two-way radio communications required.

**10. Maintenance of the Secured Area of the Airport.**

Airport Owner and contractors must also maintain a high level of security during construction when access points are created in the security fencing to permit construction vehicle access. Temporary gates shall be equipped and/or manned by construction personnel to prevent unauthorized access by vehicles, animals or people. Procedures conforming to Airport security protocols should be in place to ensure



that only authorized persons and vehicles have access to the AOA and to prohibit “piggybacking” behind another person or vehicle. Access shall be made available at all times to all airport emergency vehicles traveling to operations areas within the proximity of the construction work zone.

**c. Security.**

The Contractor shall be responsible for maintaining security at all access gates used during the project and will be held liable by the Airport Owner for any breach of security. No gate shall be left open. Procedures should be in place to ensure that only authorized persons and vehicles have access to the AOA and to prohibit “piggybacking” behind another person or vehicle. If the contractor expects consecutive deliveries, the contractor shall post a gate guard if the gate is to remain open.

The Contractor shall be required to maintain security and comply with the Transportation Security Administration Security Rules and Regulations throughout the duration of the project. The Contractor and the Surety shall indemnify and save harmless the Airport Owner, RPR and third party or political subdivision from any and all breaches of security and shall indemnify the Airport Owner for any fines, expenses and damages which it may be obliged to pay by reason of any breach of security resulting from the Contractor's actions at any time during the prosecution of the work. Such breaches of security are subject to fines by the Transportation Security Administration of up to ten thousand dollars (\$10,000) per incident.

**3.6 WILDLIFE MANAGEMENT.**

Construction contractors must carefully control and continuously remove waste or loose materials that might attract wildlife. Contractor personnel must be aware of and avoid construction activities that can create wildlife hazards on airports.

- a. Trash.** Food scraps from construction personnel activity must be collected and disposed of at a proper facility.
- b. Standing water.** Water shall not be allowed to collect and pool for more than any single 24-hour period. Temporary grading may be required to promote drainage during daily operations as well as between work phases.
- c. Tall grass and seeds.** The use of millet seed in turfing and seeding operations shall not be permitted.
- d. Poorly maintained fencing and gates.** The Contractor shall maintain a constant secure perimeter to the airfield, including continuous security perimeter fencing and gates (if applicable).
- e. Disruption of existing wildlife habitat.** Not applicable to this project.

Contractor shall take immediate remedial action to remove wildlife attractants should any occurrence be noted. Contractor shall immediately report to the RPR and Airport Owner should any wildlife congregation be noted, and in particular if mammals enter the airport through the construction gate.

**3.7 FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT.**

Special care and measures shall be taken to prevent Foreign Object Debris (FOD) damage when working in an airport environment. Waste and loose materials, commonly referred to as FOD, are capable of causing damage to aircraft landing gears, propellers, and jet engines. The Contractor shall be responsible for implementing an approved FOD Management Plan prior to the start of construction activities. The FOD Management Plan will have procedures for prevention, regular cleanup, and containment of construction material and debris. The

Contractor will ensure all vehicles related to the construction project using paved surfaces in the AOA shall be free of any debris that could create a FOD hazard. Special attention will be given to the cleaning of cracks and pavement joints. All taxiways, aprons, and runways must remain clean. Waste containers with attached lids shall be required on construction sites.

Special attention should be given to securing lightweight construction material (concrete insulating blankets, tarps, insulation, etc.). Specific securing procedures and/or chain link enclosures may be required.

Contractors will provide their own equipment for vehicle and equipment washing and clean up.

Immediate access to a power sweeper is required when construction occurs on any pavement area inside the AOA, unless an appropriate alternative has been approved by the Airport Owner's Representative and Airport Operations Manager.

### **3.8 HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT.**

Contractors operating construction vehicles and equipment on the airport must be prepared to expeditiously contain and clean-up spills resulting from fuel, hydraulic fluid, or other chemical fluid leaks. Transport and handling of other hazardous materials on an airport also requires special procedures. To that end, the Contractor is required to develop a spill prevention plan and response procedures for vehicle operations prior to the start of construction activities. This includes maintenance of appropriate MSDS data and appropriate prevention and response equipment on-site.

Fueling Procedures and Spill Recovery Procedures shall be in accordance with California State Fire Code, latest edition, and the National Fire Protection Association standard procedures for spill response, latest edition. If fueling is to take place in the staging area, it must be away from catch basins. Contractor must have spill containment kits on site.

In the event of a fuel spill or the spill of other hazardous materials, the Contractor shall immediately notify the Airport Owner, RPR, and Environmental Protection Agency.

Contractor shall abide by the specific requirements contained in the Technical Specifications of this contract.

### **3.9 NOTIFICATION OF CONSTRUCTION ACTIVITY.**

The following is information and procedures for immediate notification of airport users and the FAA of any conditions adversely affecting the operational safety of the airport.

- a. Maintenance of a list of Responsible Representatives/ Point of contact.** A list of responsible representatives and points of contact shall be created by the RPR, the Airport and the Contractor prior to the start of construction. This list shall be compiled as part of the project pre-construction meeting agenda. Procedures will be established to contact all parties, including after regular work hours. Updates will be made to the list throughout the project duration by the RPR. Contractor points of contact shall be incorporated into the contractor's SPCD.
- b. Notices to Airman (NOTAM).** Only the Airport Owner may initiate or cancel NOTAMs on airport conditions, and is the only entity that can close or open a runway or taxiway. The Airport Owner must coordinate the issuance, maintenance, and cancellation of NOTAMs about airport conditions resulting from construction activities with tenants, and must provide information on closed or hazardous conditions on airport movement areas to the FAA Flight Service Station (FSS) so it can issue a NOTAM. The Airport Owner must file and maintain a list of authorized representatives with the FSS. Only the FAA may issue or cancel NOTAMs on shutdown or irregular operation of FAA owned facilities. Any person having reason to

believe that a NOTAM is missing, incomplete, or inaccurate must notify the Airport Owner. See Section 3.14 regarding issuing NOTAMs for partially closed runways versus runways with displaced thresholds.

Any NOTAMs for planned airfield closures for this project must be coordinated through the airport manager and the airports duly appointed construction management representative. Reference Section 3.2 for planned closures for this project, which require issuance of a NOTAM.

- c. **Emergency Notification Procedures.** In the event of an aircraft emergency, severe weather conditions, or any issue as determined by the Airport that may affect aircraft operations, the Contractor's personnel and/or equipment may be required to immediately vacate the area(s) affected. Points of contact for the various parties involved with the project shall be identified and shared at the pre-construction meeting among the various parties. Emergency points of contact shall be incorporated into the contractor's SPCD.

Procedures and methods for addressing any planned or emergency response actions on the airfield concerning this project shall be established and implemented prior to the start of construction.

d. **Notification to the FAA.**

1. **Part 77.** Any person proposing construction or alteration of objects that affect navigable airspace, as defined in Part 77, must notify the FAA. This includes construction equipment and proposed parking areas for this equipment (i.e. cranes, graders, other equipment) on airports. FAA Form 7460-1, Notice of Proposed Construction or Alteration, is used for this purpose and submitted to the appropriated FAA Airports Regional or District Office. A 7460-1 form for this project has been prepared by the Engineer and submitted to the FAA for using equipment with a maximum height of 25 feet. A new 7460-1 form must be submitted to the FAA for review and comment for any equipment that the Contractor will use which is taller than the equipment used in the above 7460-1 submission. The Airport Owner will be responsible for submitting the new 7460-1 form to the FAA. To that end, the Contractor shall identify the equipment in his SPCD, including the maximum height it will extended to during construction, the area(s) in which the equipment will be used, and the duration the equipment will be used.
  2. **Part 157.** It is not anticipated that Part 157 notifications will be required for this project.
  3. **NAVAIDS.** For emergency (short-notice) notification about impacts to both airport owned and FAA owned NAVAIDS, contact: 866-432-2622.
    - i. **Airport owned/FAA maintained.** If construction operations require a shutdown of more than 24 hours, or more than 4 hours daily on consecutive days, of a NAVAID owned by the airport but maintained by the FAA, provide a 45-day minimum notice to FAA ATO/Technical Operations prior to facility shutdown.
    - ii. **FAA owned.** The Airport Owner must notify the appropriate FAA ATO Service Area Planning and Requirements (P&R) Group a minimum of 45 days prior to implementing an event that causes impacts to NAVAIDS. (Impacts to FAA equipment covered by a Reimbursable Agreement (RA) do not have to be reported by the Airport Owner). Coordinate work for an FAA owned NAVAID shutdown with the local FAA ATO/Technical Operations office, through the RPR, including any necessary reimbursable agreements and flight checks. Detail procedures that address unanticipated utility outages and cable cuts that could impact FAA NAVAIDS. In addition, provide seven days' notice to schedule the actual shutdown.
- e. **Accidents.** The Contractor shall provide at the site such equipment and medical facilities as are necessary to supply first aid service to anyone who may be injured in connection with the work. The Contractor must promptly report in writing to the RPR all accidents whatsoever arising out of, or in connection with, the

performance for the work, whether on or adjacent to the site which caused death, personal injury or property damages, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to both the RPR and the Airport Owner.

If any claim is made by anyone against the Contractor or any Subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the RPR giving full details of the claims.

### **3.10 INSPECTION REQUIREMENTS.**

- a. Daily (or more frequent) inspections.** Inspections shall be conducted by the Contractor at least daily, but more frequently if necessary, to ensure conformance with the CSPP. A sample checklist is provided in Appendix 2 of this document. In addition to Contractor's required inspections, airport operations will inspect the construction site daily to ensure compliance with the CSPP and the SPCD. The Airport Owner's Representative will have full-time inspectors monitoring activity throughout construction. Promptly take all actions necessary to prevent or remedy any unsafe or potentially unsafe conditions as soon as they are discovered.
- b. Final inspections.** A final inspection with the Airport Owner's Representative, Airport and Contractor will take place prior to allowing airport operations.

### **3.11 UNDERGROUND UTILITIES.**

Special attention shall be given to preventing unscheduled interruption of utility services and facilities. Where required due to construction purposes, the FAA shall locate all of their underground cables. The Contractor shall locate and/or arrange for the location of all the underground cables. When an underground cable is damaged due to the Contractor's negligence the Contractor shall immediately repair the cable affected at his/her own expense. Full coordination between airport staff, field inspectors, and construction personnel will be exercised to ensure that all airport power and control cables are fully protected prior to any excavation. Locations of cabling will be marked prior to beginning excavation.

Prior to opening an excavation, effort shall be made to determine whether underground installation: i.e., sewer, water, fuel, electric lines, etc., will be encountered, and if so, where such underground installations are located. When the excavation approaches the approximate locations of such an installation, the exact locations shall be determined by careful hand probing or hand digging, and/or use of a vacuum truck, and when it is uncovered, adequate protection shall be provided for the existing installation. All known owners of underground facilities in the area concerned shall be advised of proposed work at least 48 hours prior to the start of actual excavation.

The information concerning underground utilities was compiled from information and sketches furnished by or obtained from utility companies and the Airport. The Airport Owner and the RPR do not guarantee their accuracy. The Contractor is advised to determine the exact locations from the available sources of information or provide his own means of detection. The only case in which the RPR will consider redesign or relocation of a proposed facility in the project is when an existing utility is located within the construction limits. In this case, the RPR will work with the Airport Owner to determine the appropriate action to resolve the conflict. If such relocation is impossible, the RPR will consider re-design or relocation of the proposed facilities. In both cases, Contractor shall be responsible for all underground utilities and shall not be separately compensated for delays or extra cost.

Note that most utility location services do not include locating FAA and Airport Owner facilities, and most will not locate services within the AOA

### 3.12 PENALTIES.

Failure on the part of the Contractor to adhere to prescribed requirements may have consequences that jeopardize the health, safety or lives of customers and employees at the airport. The Airport may issue warnings on the first offense based upon the circumstances of the incident. Individuals involved in non-compliance violations may be prohibited from working at the airport, pending an investigation of the matter.

Penalties for violations related to airport safety and security procedures will be established by the Airport.

Note: project shutdown or misdemeanor citations may be issued on a first offense. When construction operations are suspended, activity shall not resume until all deficiencies are rectified.

### 3.13 SPECIAL CONDITIONS.

In the event of an aircraft emergency, the Contractor's personnel and/or equipment may be required to immediately vacate the area. The Contractor will receive notification from airport operations when special conditions require the construction site to be vacated.

Special conditions that could require suspension of the construction work include the following: aircraft in distress, aircraft accident, security breach, VIP operation, vehicle/pedestrian deviation, severe weather, or failing to abide by this Construction Safety and Phasing Plan and/or the Safety Plan Compliance Document.

### 3.14 RUNWAY AND TAXIWAY VISUAL AIDS.

This topic includes marking, lighting, signs, and visual NAVAIDs. Those areas where aircraft will be operating shall be clearly and visibly separated from construction areas, including closed runways. Throughout the duration of the construction project, the Contractor shall inspect and verify that these areas remain clearly marked and visible at all times and that marking, lighting, signs and visual NAVAIDs remain in place and operational.

- a. **General.** Airport markings, lighting, signs, and visual NAVAIDs must be clearly visible to pilots, not misleading, confusing, or deceptive. All must be secured in place to prevent movement by prop wash, jet blast, wing vortices, or other wind currents and constructed of materials that would minimize damage to an aircraft in the event of inadvertent contact.

Marking and lighting for a temporary threshold is not required.

Closed runway markings are not required.

- b. **Markings.** Markings must be in compliance with the standards of AC 150/5340-1, Standards for Airport Markings, current edition, and the drawings and technical specifications of this project.
- c. **Signs.** Signs must be in conformance with AC 150/5345-44, Specification for Runway and Taxiway Signs and AC 150/5340-18, Standard for Airport Sign Systems, current edition.

### 3.15 MARKING AND SIGNS FOR ACCESS ROUTES.

Location of haul routes on the airport site shall be as specified in the project drawing set and as provided graphically in the attached exhibits, reference Appendix 1. It shall be the Contractor's responsibility to coordinate off-site haul routes with the appropriate owner who has jurisdiction over the affected route. The haul routes, to the extent possible, shall be marked and signed in accordance with FAA airfield signage requirements, the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or state highway specifications, as applicable.

### 3.16 HAZARD MARKING, LIGHTING AND SIGNING.

- a. **Purpose.** Hazard marking, lighting, and signing prevent pilots from entering areas closed to aircraft, and prevent construction personnel from entering areas open to aircraft. The CSPP specifies prominent, comprehensible warning indicators for any area affected by construction that is normally accessible to aircraft, personnel, or vehicles. Hazard marking and lighting is also be specified to identify open manholes, small areas under repair, stockpiled material, waste areas, and areas subject to jet blast. Also included are markings to identify FAA, airport, and National Weather Service facilities cables and power lines; instrument landing system (ILS) critical areas; airport surfaces, such as RSA, OFA, and OFZ; and other sensitive areas to make it easier for contractor personnel to avoid these areas.
- b. **Equipment.**
  - (1). **Barricades.** Low profile barricades, including traffic cones, (weighted or sturdily attached to the surface) are acceptable methods used to identify and define the limits of construction and hazardous areas on airports. Careful consideration must be given to selecting equipment that poses the least danger to aircraft but is sturdy enough to remain in place when subjected to typical winds, prop wash and jet blast. The spacing of barricades must be such that a breach is physically prevented barring a deliberate act. Gaps between barricades must be smaller than the width of the excluded vehicles, generally 4 feet (1.2 meters).
  - (2). **Lights.** Lights must be red, either steady burning or flashing, and must meet the luminance requirements of the State Highway Department. Batteries powering lights will last longer if lights flash. Lights must be mounted on barricades and spaced at no more than 10 feet (3 meters). Lights must be operated between sunset and sunrise and during periods of low visibility whenever the airport is open for operations. They may be operated by photocell, but this may require that the contractor turn them on manually during periods of low visibility during daytime hours.
  - (3). **Supplement Barricades with Signs (for example) As Necessary.** Examples are "No Entry" and "No Vehicles."
  - (4). **Air Operations Area – General.** Barricades are not permitted in any active safety area or on the runway side of a runway hold line. Within a runway or taxiway object free area, and on aprons, use flashing or steady burning red lights as noted above, highly reflective collapsible barricades marked with diagonal, alternating orange and white stripes; and/or signs to separate all construction/maintenance areas from the movement area. Barricades may be supplemented with alternating orange and white flags at least 20 by 20 inch (50 by 50 cm) square and securely fastened to eliminate FOD. All barricades adjacent to any open runway or taxiway/taxilane safety area, or apron must be no more than 18 inches high, exclusive of supplementary lights and flags. Barricades must be of low mass; easily collapsible upon contact with an aircraft or any of its components; and weighted or sturdily attached to the surface to prevent displacement from prop wash, jet blast, wing vortex, and other surface wind currents. If affixed to the surface, they must be frangible at grade level or as low as possible, but not to exceed 3 inch (7.6 cm) above the ground.

(5). **Air Operations Area – Runway/Taxiway Intersections.** Use highly reflective barricades with lights to close taxiways leading to closed runways. Close all taxiway/runway intersections with barricades. The use of traffic cones is appropriate for short duration closures.

(6). **Air Operations Area – Other.** Beyond runway and taxiway object free areas and aprons, barricades intended for construction vehicles and personnel may be many different shapes and made from various materials, including railroad ties, sawhorses, jersey barriers, or barrels.

(7). **Maintenance.** The contractor is required to maintain the hazard markings, lighting and signing and to have a person on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades. The contractor must file the contact person's information with the airport operator. Lighting should be checked for proper operation at least once per day, preferably at dusk.

**3.17 WORK ZONE LIGHTING FOR NIGHTTIME CONSTRUCTION.** Lighting equipment must adequately illuminate the work area if the construction is to be performed during nighttime hours. All support equipment, except haul trucks, should be equipped with artificial illumination to safely illuminate the area immediately surrounding their work areas. The lights should be positioned to provide the most natural color illumination and contrast with a minimum of shadows. The spacing must be determined by trial. Shielding may be necessary. Light towers should be removed from the construction site when the area is reopened to aircraft operations. The Owner shall approve the location of and aiming of lighting equipment before it is used.

### 3.18 PROTECTION OF AIRFIELD AREAS.

Safety area encroachments, improper ground vehicle operations and unmarked or uncovered holes and trenches in the vicinity of aircraft operation surfaces and construction areas are the three most recurring threats to safety during construction. Protection of runway and taxiway safety areas, object free areas, obstacle free zones, and approach/departure surfaces shall be a standing requirement for the duration of construction operations.

- a. **Runway Safety Area (RSA).** A runway safety area is the defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway by aircraft.

Runway	Aircraft Design Group	RSA Distance from		RSA Width	RSA Length from End of Runway
		RSA	Holdline		
18-36	B-II	75 ft.	75 ft.	150 ft.	300 ft.

No construction within the existing RSA is anticipated.

- b. **Runway Object Free Area (ROFA).** Construction, including excavations, may be permitted in the ROFA. However, equipment must be removed from the ROFA when not in use, and material should not be stockpiled in the ROFA if not necessary. Stockpiling material in the OFA requires submittal of a 7460-1 form and justification provided to the appropriate FAA Airports Regional or District Office for approval.

Runway	Aircraft Design Group	ROFA Distance from Centerline	ROFA Width	ROFA Length from End of Runway
18-36	B-II	250 ft.	500 ft.	300 ft.

No construction within the ROFA is anticipated.

- c. **Taxiway Safety Area (TSA).** The taxiway safety area is a defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway. No construction may occur within the TSA while the taxiway is open for aircraft operations.

Taxiway	Aircraft Design Group	TSA Distance from Centerline	TSA Width
All	B-II	39.5 ft.	79 ft.

Open trenches or excavations are not permitted within the TSA while the taxiway is open. The Contractor must backfill trenches before the taxiway is opened. Coverings are not allowed in taxiway safety areas.

The Airport Owner must coordinate any adjustment of TSA dimensions, to meet the above requirement, with the appropriate FAA Airports Regional or District Office and the local FAA air traffic manager and issue a NOTAM.

After the Taxiway has been closed, Contractors must prominently mark open trenches and excavations at the construction site with red or orange flags, as approved by the Airport Owner, and light them with red lights during hours of restricted visibility or darkness.

Soil erosion must be controlled to maintain TSA standards, that is, the TSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and capable, under dry conditions, of supporting the occasional passage of aircraft without causing structural damage to the aircraft.

- d. **Taxiway Object Free Area (TOFA).** Unlike the Runway Object Free Area, aircraft wings regularly penetrate the taxiway/taxilane object free area during normal operations. Thus the restrictions are more stringent. No construction equipment may be parked within the TOFA while the taxiway/taxilane is open for aircraft operations.

Construction activity may be accomplished without adjusting the width of the taxiway object free area, subject to the following restrictions:

1. Taxiing speed is limited to 10 mph.
2. Appropriate NOTAMs are issued.
3. Marking and lighting meeting the provisions above are implemented.
4. Five-foot clearance is maintained between equipment and materials and any part of an aircraft (includes wingtip overhang). If such clearance can only be maintained if an aircraft does not have full use of the entire taxiway width (with its main landing gear at the edge of the pavement), then it will be necessary to move personnel and equipment for the passage of that aircraft.

Taxiway	Aircraft Design Group	TOFA Distance from Centerline	TOFA Width
All	II	62 ft.	124 ft.

- e. **Obstacle Free Zone (OFZ).** Construction personnel, material, and/or equipment may not penetrate the OFZ while the runway is open for aircraft operations. The OFZ is a defined volume of airspace centered about and above the runway centerline.



- f. Runway approach/departure surfaces.** All personnel, materials, and/or equipment must remain clear of the applicable threshold siting surfaces. Objects that do not penetrate these surfaces may still be obstructions to air navigation and may affect standard instrument approach procedures. Coordinate with the FAA through the appropriate FAA Airports Regional or District Office.

### **3.19 OTHER LIMITATIONS ON CONSTRUCTION.**

- a. Prohibitions.** The following prohibitions are in effect for the duration of this project:
  - 1. No use of tall equipment (cranes, concrete pumps, and so on) unless a 7460-1 determination letter is issued for such equipment.
  - 2. No use of open flame welding or torches unless fire safety precautions are provided and the Airport Owner has approved their use.
  - 3. No use of electrical blasting caps or explosives of any kind on or within 1,000 ft (300 m) of the airport property.
- b. Restrictions.**
  - 1. Construction suspension required during specific airport operations: Not applicable.
  - 2. Areas cannot be worked on simultaneously.
  - 3. Day or night construction restrictions: Phase 3A-Night and 3B-Night shall be night work
  - 4. Seasonal Construction Restrictions: Construction not to occur in winter months.
  - 5. Temporary signs not approved by the airport operator: Not applicable.
  - 6. Grade changes that could result in unplanned effects on NAVAIDs: Not applicable.

**APPENDIX 1**

**LOCATION MAP**

**(Sheet GI001 of the Contract Drawings)**

**GENERAL PLAN**

**(Sheet GC100 of the Contract Drawings)**

**CONSTRUCTION SAFETY PHASING PLAN**

**(Sheet GC101-GC112 of the Contract Drawings)**

**APPENDIX 2**

**CONSTRUCTION PROJECT DAILY SAFETY INSPECTION CHECKLIST**

### **Construction Project Daily Safety Inspection Checklist**

The situations identified below are potentially hazardous conditions that may occur during airport construction projects. Safety Area encroachments, unauthorized and improper ground vehicle operations, and unmarked or uncovers holes and trenches near aircraft operating surfaces pose the most prevalent threats to airport operational safety during airport construction projects. The list below is one tool that the Contractor may use to aid in identifying and correcting potentially hazardous conditions.

#### **Potentially Hazardous Conditions**

Item	Action Required	or	None
Excavation adjacent to runways, taxiways, and aprons improperly backfilled.			<input type="checkbox"/>
Mounds of earth, construction materials, temporary structures, and other obstacles near any open runway, taxiway, or taxi lane; in the related Object Free area and aircraft approach or departure areas/zones; or obstructing any sign or marking.			<input type="checkbox"/>
Runway resurfacing projects resulting in lips exceeding 3 inches from pavement edges and ends.			<input type="checkbox"/>
Heavy equipment (stationary or mobile) operating or idle near AOA, in runway approaches and departures areas, or in OFZ.			<input type="checkbox"/>
Equipment or material near NAVAIDs that may degrade or impair radiated signals and/or the monitoring of navigation and visual aids. Unauthorized or improper vehicle operations in localizer or glide slope critical areas, resulting in electronic interference and/or facility shutdown.			<input type="checkbox"/>
Tall and especially relatively low visibility units (that is, equipment with slim profiles) —cranes, drills, and similar objects—located in critical areas, such as OFZ and approach zones.			<input type="checkbox"/>

Item	Action Required	or	None
Improperly positioned or malfunctioning lights or unlighted airport hazards, such as holes or excavations, on an apron, open taxiway, or open taxi lane or in related safety, approach, or departure area.			<input type="checkbox"/>
Obstacles, loose pavement, trash, and other debris on or near AOA. Construction debris (gravel, sand, mud, paving materials) on airport pavements may result in aircraft propeller, turbine engine, or tire damage. Also, loose materials may blow about, potentially causing personal injury or equipment damage.			<input type="checkbox"/>
Inappropriate or poorly maintained fencing during construction intended to deter human and animal intrusions into the AOA. Fencing and other markings that are inadequate to separate construction areas from open AOA create aviation hazards.			<input type="checkbox"/>
Improper or inadequate marking or lighting of runways (especially thresholds that have been displaced or runways that have been closed) and taxiways that could cause pilot confusion and provide a potential for a runway incursion. Inadequate or improper methods of marking, barricading, and lighting of temporarily closed portions of AOA create aviation hazards.			<input type="checkbox"/>
Wildlife attractants — such as trash (food scraps not collected from construction personnel activity), grass seeds, tall grass, or standing water — on or near airports.			<input type="checkbox"/>
Obliterated or faded temporary markings on active operational areas.			<input type="checkbox"/>
Misleading or malfunctioning obstruction lights. Unlighted or unmarked obstructions in the approach to any open runway pose aviation hazards.			<input type="checkbox"/>

Item	Action Required	or	None
Failure to issue, update, or cancel NOTAMs about airport or runway closures or other construction related airport conditions.			<input type="checkbox"/>
Failure to mark and identify utilities or power cables. Damage to utilities and power cables during construction activity can result in the loss of runway / taxiway lighting; loss of navigation, visual, or approach aids; disruption of weather reporting services; and/or loss of communications.			<input type="checkbox"/>
Lack of radio communications with construction vehicles in airport movement areas.			<input type="checkbox"/>
Objects, regardless of whether they are marked or flagged, or activities anywhere on or near an airport that could be distracting, confusing, or alarming to pilots during aircraft operations.			<input type="checkbox"/>
Water, dirt, debris, or other contaminants that temporarily obscure or derogate the visibility of runway/taxiway marking, lighting, and pavement edges. Any condition or factor that obscures or diminishes the visibility of areas under construction.			<input type="checkbox"/>
Spillage from vehicles (gasoline, diesel fuel, oil) on active pavement areas, such as runways, taxiways, aprons, and airport roadways.			<input type="checkbox"/>
Failure to maintain drainage system integrity during construction (for example, no temporary drainage provided when working on a drainage system).			

Item	Action Required	or	None
Failure to provide for proper electrical lockout and tagging procedures. At larger airports with multiple maintenance shifts/workers, construction contractors should make provisions for coordinating work on circuits.			<input type="checkbox"/>
Failure to control dust. Consider limiting the amount of area from which the Contractor is allowed to strip turf.			<input type="checkbox"/>
Exposed wiring that creates an electrocution or fire ignition hazard. Identify and secure wiring, and place it in conduit or bury it.			<input type="checkbox"/>
Site burning, which can cause possible obscuration.			<input type="checkbox"/>
Construction work taking place outside of designated work areas and out of phase.			<input type="checkbox"/>

### **APPENDIX 3**

#### **CONTRACTORS SAFETY PLAN COMPLIANCE DOCUMENT (SPCD)**

(The SPCD Certification is located in the Proposal Section)



## SAFETY PLAN COMPLIANCE DOCUMENT (SPCD)

Project Location: French Valley Airport

Project Name: Apron Pavement Rehabilitation

### General Statement:

The Construction Safety and Phasing Plan (CSPP), identified as Attachment “A” to Section 70-08, has been prepared in accordance with FAA Advisory Circular 150/5370-2G, *Operational Safety on Airports During Construction and the requirements of the Airport Owner*. The CSPP has been submitted to the FAA for review and comment. Any comments from the FAA which were received prior to bid opening have been incorporated into the CSPP.

In the event that the FAA transmits comments which require that the CSPP be revised after bid opening, I understand that I am obligated to abide by the conditions and statements contained in the revised CSPP. I further understand that I will be given the opportunity to evaluate the revised CSPP as it relates to my contract and request appropriate compensation in accordance with the provisions of the contract.

### Supplemental Information:

Where the CSPP covers a subject and no additional information is needed, the statement below reads, “No supplemental information required”. Where additional information is required by the Contractor, the information shall be provided in the spaces below.

The section numbers below correspond with the section numbers in the CSPP.

#### 3.1 Coordination

**Statement:** [Explain how you will distribute information and details of meetings to employees and subcontractors.]

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#### 3.2 Phasing

**Statement:** [List the number of days each Work Area will take. State the time day work will start and finish for each work area.]

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#### 3.3 Areas and operations affected by the construction activity

**Statement:** Information is provided in the CSPP. No supplemental information is required.

### 3.4 Protection of NAVAIDs

**Statement:** Information is provided in the CSPP. No supplemental information is required.

### 3.5 Contractor Access

**Security Statement:** [Explain how you will maintain integrity of the airport security fence at the access gate, e.g.: Gate guards, closed and locked gates, temporary fencing, etc.]

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**Training Statement:** [List individuals who will receive driver training (for certificated airports and as requested.)]

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**Communication Statement:** [Identify types of radios, if any, you will use to communicate with drivers and personnel. Identify who will be monitoring radios.]

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**Escort Statement:** [Identify who will escort material delivery vehicles.]

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### 3.6 Wildlife Management

**Statement:** [Identify who will be monitoring wildlife in the construction area. Identify who will be monitoring wildlife at the construction gate.]

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### 3.7 Foreign Object Debris (FOD) Management

**Statement:** [Identify who will be preparing a FOD Management Plan. (Plan must be approved prior to the start of construction activities.)]

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### 3.8 Hazardous material (HAZMAT) management

**Statement:** [Identify who will be preparing a Spill Prevention Plan. (Plan must be approved prior to the start of construction activities.)]

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**3.9 Notification of construction activities.** Provide the following:

**Key Personnel Statement:** [Identify your key personnel points of contact with phone numbers.]

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**Emergency Contacts Statement:** [Identify your emergency contacts with 24 hour phone numbers.]

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**Equipment Statement:** [Part 77: Identify equipment you will be using that is taller than feet, including on-site batch plants. Identify the maximum height it will be extended to during construction for each Work Area and the expected duration. Identify when during the day it will be used.]

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**3.10 Inspection requirements.**

**Statement:** [Identify the person who will be responsible for daily inspections to ensure conformance with the CSPP. Describe additional inspections you will employ, if any, to ensure conformance.]

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**3.11 Underground utilities.**

**Statement:** [Discuss proposed methods of identifying and protecting underground utilities.]

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### 3.12 Penalties

**Statement:** Information is provided in the CSPP. No supplemental information is required.

### 3.13 Special conditions.

**Statement:** [Identify who will be responsible for moving equipment and personnel from the work area and vacating the area in the event of a special condition listed in the CSPP.]

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### 3.14 Runway and taxiway visual aids. Including marking, lighting, signs, and visual NAVAIDs.

**Statement:** Information is provided in the CSPP. No supplemental information is required.

### 3.15 Marking and signs for access routes. Discuss proposed methods of demarcating access routes for vehicle drivers.

**Statement:** Information is provided in the CSPP. No supplemental information is required.

### 3.16 Hazard marking and lighting.

**Statement:** [Identify who will be responsible for maintaining hazard marking and lighting. Include a 24 hour phone number.]

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### 3.17 Protection of taxiway and runway safety areas. Include object free areas, obstacle free zones, approach/departure surfaces and safety areas as required. Discuss proposed methods of identifying, demarcating, and protecting airport surfaces including:

Equipment and methods for maintaining Taxiway/Taxilane Safety Area standards.

**Statement:** Information is provided in the CSPP. No supplemental information is required.

Equipment and methods for separation of construction operations from aircraft operations, including details of barricades.

**Statement:** Information is provided in the CSPP. No supplemental information is required.

### 3.18 Other limitations on construction.

Other limitations are identified in the CSPP and do not require an entry in this document.

**APPENDIX 4**

**SPOIL DEPOSITION RELEASE FORM**

## SPOILS DEPOSITION RELEASE FORM

To: County of Riverside, 4080 Lemon Street, 14<sup>th</sup> Floor, Riverside, CA 92501 (AIRPORT OWNER), and  
C&S Engineers, Inc., 2355 Northside Drive, Suite 350, San Diego, CA 92108 (RPR).

Project: Apron Pavement Rehabilitation

This SPOILS DEPOSITION RELEASE FORM is being forwarded to the above referenced AIRPORT OWNER and RPR to satisfy the Contract Documents governing the above referenced project. Pursuant to the Contract Documents, LANDOWNER has granted permission to CONTRACTOR to deposit spoils at LANDOWNER'S property located at \_\_\_\_\_  
\_\_\_\_\_ (give specific location).

Further, CONTRACTOR hereby agrees to the greatest extent of the law, to release, indemnify, hold harmless, and defend the AIRPORT OWNER and RPR from any and all damage, liability, or cost (including reasonable attorney's fees and cost of defense) to the extent caused by or arising out of the deposition of the spoils on LANDOWNER'S property.

### CONTRACTOR:

### LANDOWNER:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Written Name & Title

\_\_\_\_\_  
Written Name & Title

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Mailing Address (Street Name and Number)

\_\_\_\_\_  
Mailing Address (Street Name and Number)

\_\_\_\_\_  
City, State, Zip Code

\_\_\_\_\_  
City, State, Zip Code

\_\_\_\_\_  
Daytime Phone Number (Include Area Code)

\_\_\_\_\_  
Daytime Phone Number (Include Area Code)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

## Section 80 Execution and Progress

**80-01 Subletting of contract.** The Owner will not recognize any subcontractor on the work. The Contractor shall at all times when work is in progress be represented either in person, by a qualified superintendent, or by other designated, qualified representative who is duly authorized to receive and execute orders of the Resident Project Representative (RPR).

The Contractor shall perform, with his organization, an amount of work equal to at least 25 percent of the total contract cost.

Should the Contractor elect to assign their contract, said assignment shall be concurred in by the surety, shall be presented for the consideration and approval of the Owner, and shall be consummated only on the written approval of the Owner.

**The Contractor shall provide copies of all subcontracts to the RPR 14 days prior to being utilized on the project. As a minimum, the information shall include the following:**

- Subcontractor's legal company name.
- Subcontractor's legal company address, including County name.
- Principal contact person's name, telephone and fax number.
- Complete narrative description, and dollar value of the work to be performed by the subcontractor.
- Copies of required insurance certificates in accordance with the specifications.
- Minority/ non-minority status.

**80-02 Notice to proceed (NTP).** The Owners notice to proceed will state the date on which contract time commences. The Contractor is expected to commence project operations within one day of the NTP date. The Contractor shall notify the RPR at least 24 hours in advance of the time contract operations begins. The Contractor shall not commence any actual operations prior to the date on which the notice to proceed is issued by the Owner.

**80-03 Execution and progress.** Unless otherwise specified, the Contractor shall submit their coordinated construction schedule showing all work activities for the RPR's review and acceptance at least 10 days prior to the start of work. The Contractor's progress schedule, once accepted by the RPR, will represent the Contractor's baseline plan to accomplish the project in accordance with the terms and conditions of the Contract. The RPR will compare actual Contractor progress against the baseline schedule to determine that status of the Contractor's performance. The Contractor shall provide sufficient materials, equipment, and labor to guarantee the completion of the project in accordance with the plans and specifications within the time set forth in the proposal.

If the Contractor falls significantly behind the submitted schedule, the Contractor shall, upon the RPR's request, submit a revised schedule for completion of the work within the contract time and modify their operations to provide such additional materials, equipment, and labor necessary to meet the revised

schedule. Should the execution of the work be discontinued for any reason, the Contractor shall notify the RPR at least 24 hours in advance of resuming operations.

The Contractor shall not commence any actual construction prior to the date on which the NTP is issued by the Owner.

The Contractor shall maintain the work schedule and provide an update and analysis of the progress schedule on a twice monthly basis, or as otherwise specified in the contract. Submission of the work schedule shall not relieve the Contractor of overall responsibility for scheduling, sequencing, and coordinating all work to comply with the requirements of the contract.

**80-04 Limitation of operations.** The Contractor shall control their operations and the operations of their subcontractors and all suppliers to provide for the free and unobstructed movement of aircraft in the air operations areas (AOA) of the airport.

When the work requires the Contractor to conduct their operations within an AOA of the airport, the work shall be coordinated with airport operations (through the RPR) at least 48 hours prior to commencement of such work. The Contractor shall not close an AOA until so authorized by the RPR and until the necessary temporary marking, signage and associated lighting is in place as provided in Section 70, paragraph 70-08, *Construction Safety and Phasing Plan (CSPP)*.

When the contract work requires the Contractor to work within an AOA of the airport on an intermittent basis (intermittent opening and closing of the AOA), the Contractor shall maintain constant communications as specified; immediately obey all instructions to vacate the AOA; and immediately obey all instructions to resume work in such AOA. Failure to maintain the specified communications or to obey instructions shall be cause for suspension of the Contractor's operations in the AOA until satisfactory conditions are provided. The areas of the AOA identified in the Construction Safety Phasing Plan (CSPP) and as listed below, cannot be closed to operating aircraft to permit the Contractor's operations on a continuous basis and will therefore be closed to aircraft operations intermittently as follows:

**See Attachment "A" to Section 70-08 - Construction Safety and Phasing Plan (CSPP) at the end of Section 70.**

The Contractor shall be required to conform to safety standards contained in AC 150/5370-2, Operational Safety on Airports During Construction and the approved CSPP.

**80-04.1 Operational safety on airport during construction.** All Contractors' operations shall be conducted in accordance with the approved project Construction Safety and Phasing Plan (CSPP) and the Safety Plan Compliance Document (SPCD) and the provisions set forth within the current version of AC 150/5370-2, Operational Safety on Airports During Construction. The CSPP included within the contract documents conveys minimum requirements for operational safety on the airport during construction activities. The Contractor shall prepare and submit a SPCD that details how it proposes to comply with the requirements presented within the CSPP.

The Contractor shall implement all necessary safety plan measures prior to commencement of any work activity. The Contractor shall conduct routine checks to assure compliance with the safety plan measures.

The Contractor is responsible to the Owner for the conduct of all subcontractors it employs on the project. The Contractor shall assure that all subcontractors are made aware of the requirements of the CSPP and SPCD and that they implement and maintain all necessary measures.

No deviation or modifications may be made to the approved CSPP and SPCD unless approved in writing by the Owner. The necessary coordination actions to review Contractor proposed modifications to an approved CSPP or approved SPCD can require a significant amount of time.



**80-05 Character of workers, methods, and equipment.** The Contractor shall, at all times, employ sufficient labor and equipment for prosecuting the work to full completion in the manner and time required by the contract, plans, and specifications.

All workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform the work satisfactorily.

Any person employed by the Contractor or by any subcontractor who violates any operational regulations or operational safety requirements and, in the opinion of the RPR, does not perform his work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the RPR, be removed immediately by the Contractor or subcontractor employing such person, and shall not be employed again in any portion of the work without approval of the RPR.

Should the Contractor fail to remove such person or persons, or fail to furnish suitable and sufficient personnel for the proper execution of the work, the RPR may suspend the work by written notice until compliance with such orders.

All equipment that is proposed to be used on the work shall be of sufficient size and in such mechanical condition as to meet requirements of the work and to produce a satisfactory quality of work. Equipment used on any portion of the work shall not cause injury to previously completed work, adjacent property, or existing airport facilities due to its use.

When the methods and equipment to be used by the Contractor in accomplishing the work are not prescribed in the contract, the Contractor is free to use any methods or equipment that will accomplish the work in conformity with the requirements of the contract, plans, and specifications.

When the contract specifies the use of certain methods and equipment, such methods and equipment shall be used unless otherwise authorized by the RPR. If the Contractor desires to use a method or type of equipment other than specified in the contract, the Contractor may request authority from the RPR to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the RPR determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of specified quality, or take such other corrective action as the RPR may direct. No change will be made in basis of payment for the contract items involved nor in contract time as a result of authorizing a change in methods or equipment under this paragraph.

**80-06 Temporary suspension of the work.** The Owner shall have the authority to suspend the work wholly, or in part, for such period or periods the Owner may deem necessary, due to unsuitable weather, or other conditions considered unfavorable for the execution of the work, or for such time necessary due to the failure on the part of the Contractor to carry out orders given or perform any or all provisions of the contract.

In the event that the Contractor is ordered by the Owner, in writing, to suspend work for some unforeseen cause not otherwise provided for in the contract and over which the Contractor has no control, the Contractor may be reimbursed for actual money expended on the work during the period of shutdown. No allowance will be made for anticipated profits. The period of shutdown shall be computed from the effective date of the written order to suspend work to the effective date of the written order to resume the work. Claims for such compensation shall be filed with the RPR within the time period stated in the RPR's order to resume work. The Contractor shall submit with their own claim information substantiating the amount shown on the claim. The RPR will forward the Contractor's claim to the Owner for

consideration in accordance with local laws or ordinances. No provision of this article shall be construed as entitling the Contractor to compensation for delays due to inclement weather or for any other delay provided for in the contract, plans, or specifications.

If it becomes necessary to suspend work for an indefinite period, the Contractor shall store all materials in such manner that they will not become an obstruction nor become damaged in any way. The Contractor shall take every precaution to prevent damage or deterioration of the work performed and provide for normal drainage of the work. The Contractor shall erect temporary structures where necessary to provide for traffic on, to, or from the airport.

**80-07 Determination and extension of contract time.** The number of calendar days shall be stated in the proposal and contract and shall be known as the Contract Time.

If the contract time requires extension for reasons beyond the Contractor's control, it shall be adjusted as follows:

**80-07.1 Contract time based on calendar days.** Contract Time based on calendar days shall consist of the number of calendar days stated in the contract counting from the effective date of the Notice to Proceed and including all Saturdays, Sundays, holidays, and non-work days. All calendar days elapsing between the effective dates of the Owner's orders to suspend and resume all work, due to causes not the fault of the Contractor, shall be excluded.

At the time of final payment, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in the contract time shall not consider either cost of work or the extension of contract time that has been covered by a change order or supplemental agreement. Charges against the contract time will cease as of the date of final acceptance.

**80-08 Failure to complete on time.** For each calendar day or working day, as specified in the contract, that any work remains uncompleted after the contract time (including all extensions and adjustments as provided in paragraph 80-07, *Determination and Extension of Contract Time*) the sum specified in the contract and proposal as liquidated damages (LD) will be deducted from any money due or to become due the Contractor or their own surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional engineering services that will be incurred by the Owner should the Contractor fail to complete the work in the time provided in their contract.

Schedule	Liquidated Damages Cost	Allowed Construction Time
Work Area 1A	\$2,000/day	28 Calendar Days
Work Area 1B	\$2,000/day	28 Calendar Days
Work Area 1C	\$2,000/day	35 Calendar Days
Work Area 2A	\$2,000/day	10 Calendar Days
Work Area 2B	\$2,000/day	10 Calendar Days
Work Area 2C	\$2,000/day	10 Calendar Days
Work Area 2D	\$2,000/day	10 Calendar Days
Work Area 2E	\$2,000/day	5 Calendar Days
Work Area 3A	\$2,000/day	4 Calendar Days, 1 Calendar Night
Work Area 3B	\$2,000/day	4 Calendar Days, 1 Calendar Night
Work Area 4	\$2,000/day	14 Calendar Days

Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the Owner of any of its rights under the contract.

**80-09 Default and termination of contract.** The Contractor shall be considered in default of their contract and such default will be considered as cause for the Owner to terminate the contract for any of the following reasons, if the Contractor:

- a. Fails to begin the work under the contract within the time specified in the Notice to Proceed, or
- b. Fails to perform the work or fails to provide sufficient workers, equipment and/or materials to assure completion of work in accordance with the terms of the contract, or
- c. Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or
- d. Discontinues the execution of the work, or
- e. Fails to resume work which has been discontinued within a reasonable time after notice to do so, or
- f. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or
- g. Allows any final judgment to stand against the Contractor unsatisfied for a period of 10 days, or
- h. Makes an assignment for the benefit of creditors, or
- i. For any other cause whatsoever, fails to carry on the work in an acceptable manner.

Should the Owner consider the Contractor in default of the contract for any reason above, the Owner shall immediately give written notice to the Contractor and the Contractor's surety as to the reasons for considering the Contractor in default and the Owner's intentions to terminate the contract.

If the Contractor or surety, within a period of 10 days after such notice, does not proceed in accordance therewith, then the Owner will, upon written notification from the RPR of the facts of such delay, neglect, or default and the Contractor's failure to comply with such notice, have full power and authority without violating the contract, to take the execution of the work out of the hands of the Contractor. The Owner may appropriate or use any or all materials and equipment that have been mobilized for use in the work and are acceptable and may enter into an agreement for the completion of said contract according to the terms and provisions thereof, or use such other methods as in the opinion of the RPR will be required for the completion of said contract in an acceptable manner.

All costs and charges incurred by the Owner, together with the cost of completing the work under contract, will be deducted from any monies due or which may become due the Contractor. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay to the Owner the amount of such excess.

**80-10 Termination for national emergencies.** The Owner shall terminate the contract or portion thereof by written notice when the Contractor is prevented from proceeding with the construction contract as a direct result of an Executive Order of the President with respect to the execution of war or in the interest of national defense.

When the contract, or any portion thereof, is terminated before completion of all items of work in the contract, payment will be made for the actual number of units or items of work completed at the contract price or as mutually agreed for items of work partially completed or not started. No claims or loss of anticipated profits shall be considered.

Reimbursement for organization of the work, and other overhead expenses, (when not otherwise included in the contract) and moving equipment and materials to and from the job will be considered, the intent being that an equitable settlement will be made with the Contractor.

Acceptable materials, obtained or ordered by the Contractor for the work and that are not incorporated in the work shall, at the option of the Contractor, be purchased from the Contractor at actual cost as shown by receipted bills and actual cost records at such points of delivery as may be designated by the RPR.

Termination of the contract or a portion thereof shall neither relieve the Contractor of their responsibilities for the completed work nor shall it relieve their surety of its obligation for and concerning any just claim arising out of the work performed.

**80-11 Work area, storage area and sequence of operations.** The Contractor shall obtain approval from the RPR prior to beginning any work in all areas of the airport. No operating runway, taxiway, or air operations area (AOA) shall be crossed, entered, or obstructed while it is operational. The Contractor shall plan and coordinate work in accordance with the approved CSPP and SPCD.

## **END OF SECTION 80**

## Section 90 Measurement and Payment

**90-01 Measurement of quantities.** All work completed under the contract will be measured by the RPR, or their authorized representatives, using United States Customary Units of Measurement.

The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice.

Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures (or leave-outs) having an area of 9 square feet (0.8 square meters) or less. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the plans or ordered in writing by the RPR.

Unless otherwise specified, all contract items which are measured by the linear foot such as electrical ducts, conduits, pipe culverts, underdrains, and similar items shall be measured parallel to the base or foundation upon which such items are placed.

The term “lump sum” when used as an item of payment will mean complete payment for the work described in the contract. When a complete structure or structural unit (in effect, “lump sum” work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories.

When requested by the Contractor and approved by the RPR in writing, material specified to be measured by the cubic yard (cubic meter) may be weighed, and such weights will be converted to cubic yards (cubic meters) for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the RPR and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

### Measurement and Payment Terms

Term	Description
<b>Excavation and Embankment Volume</b>	In computing volumes of excavation, the average end area method will be used unless otherwise specified.
<b>Measurement and Proportion by Weight</b>	The term “ton” will mean the short ton consisting of 2,000 pounds (907 kg) avoirdupois. All materials that are measured or proportioned by weights shall be weighed on accurate, independently certified scales by competent, qualified personnel at locations designated by the RPR. If material is shipped by rail, the car weight may be accepted provided that only the actual weight of material is paid for. However, car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as the RPR directs, and each truck shall bear a plainly legible identification mark.
<b>Measurement by Volume</b>	Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable for the materials hauled, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles

Term	Description
	shall be loaded to at least their water level capacity, and all loads shall be leveled when the vehicles arrive at the point of delivery.
<b>Asphalt Material</b>	Asphalt materials will be measured by the gallon (liter) or ton (kg). When measured by volume, such volumes will be measured at 60°F (16°C) or will be corrected to the volume at 60°F (16°C) using ASTM D1250 for asphalts. Net certified scale weights or weights based on certified volumes in the case of rail shipments will be used as a basis of measurement, subject to correction when asphalt material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work. When asphalt materials are shipped by truck or transport, net certified weights by volume, subject to correction for loss or foaming, will be used for computing quantities.
<b>Cement</b>	Cement will be measured by the ton (kg) or hundredweight (km).
<b>Structure</b>	Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.
<b>Timber</b>	Timber will be measured by the thousand feet board measure (MFBM) actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.
<b>Plates and Sheets</b>	The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fraction of inch.
<b>Miscellaneous Items</b>	When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gauge, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.
<b>Scales</b>	<p>Scales must be tested for accuracy and serviced before use. Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected, and maintained by the Contractor, or be certified permanently installed commercial scales. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end.</p> <p>Scales shall be accurate within 0.5% of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the RPR before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed 0.1% of the nominal rated capacity of the scale, but not less than one pound (454 grams). The use of spring balances will not be permitted.</p> <p>In the event inspection reveals the scales have been “overweighing” (indicating more than correct weight) they will be immediately adjusted. All materials received subsequent to the last previous correct weighting-accuracy test will be reduced by the percentage of error in excess of 0.5%.</p> <p>In the event inspection reveals the scales have been under-weighing (indicating less than correct weight), they shall be immediately adjusted. No additional payment to the Contractor will be allowed for materials previously weighed and recorded.</p> <p>Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the RPR can safely and conveniently view them.</p>

Term	Description
	<p>Scale installations shall have available ten standard 50-pound (2.3 km) weights for testing the weighing equipment or suitable weights and devices for other approved equipment.</p> <p>All costs in connection with furnishing, installing, certifying, testing, and maintaining scales; for furnishing check weights and scale house; and for all other items specified in this subsection, for the weighing of materials for proportioning or payment, shall be included in the unit contract prices for the various items of the project.</p>
<b>Rental Equipment</b>	<p>Rental of equipment will be measured by time in hours of actual working time and necessary traveling time of the equipment within the limits of the work. Special equipment ordered in connection with extra work will be measured as agreed in the change order or supplemental agreement authorizing such work as provided in paragraph 90-05 <i>Payment for Extra Work</i>.</p>
<b>Pay Quantities</b>	<p>When the estimated quantities for a specific portion of the work are designated as the pay quantities in the contract, they shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the RPR. If revised dimensions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions.</p>

**90-02 Scope of payment.** The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials, for performing all work under the contract in a complete and acceptable manner, and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the execution thereof, subject to the provisions of Section 70, paragraph 70-18, *No Waiver of Legal Rights*.

When the “basis of payment” subsection of a technical specification requires that the contract price (price bid) include compensation for certain work or material essential to the item, this same work or material will not also be measured for payment under any other contract item which may appear elsewhere in the contract, plans, or specifications.

**90-03 Compensation for altered quantities.** When the accepted quantities of work vary from the quantities in the proposal, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract price for the accepted quantities of work actually completed and accepted. No allowance, except as provided for in Section 40, paragraph 40-02, *Alteration of Work and Quantities*, will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor which results directly from such alterations or indirectly from their own unbalanced allocation of overhead and profit among the contract items, or from any other cause.

**90-04 Payment for omitted items.** As specified in Section 40, paragraph 40-03, *Omitted Items*, the RPR shall have the right to omit from the work (order nonperformance) any contract item, except major contract items, in the best interest of the Owner.

Should the RPR omit or order nonperformance of a contract item or portion of such item from the work, the Contractor shall accept payment in full at the contract prices for any work actually completed and acceptable prior to the RPR’s order to omit or non-perform such contract item.

Acceptable materials ordered by the Contractor or delivered on the work prior to the date of the RPR’s order will be paid for at the actual cost to the Contractor and shall thereupon become the property of the Owner.

In addition to the reimbursement hereinbefore provided, the Contractor shall be reimbursed for all actual costs incurred for the purpose of performing the omitted contract item prior to the date of the RPR's order. Such additional costs incurred by the Contractor must be directly related to the deleted contract item and shall be supported by certified statements by the Contractor as to the nature the amount of such costs.

**90-05 Payment for extra work.** Extra work, performed in accordance with Section 40, paragraph 40-04, *Extra Work*, will be paid for at the contract prices or agreed prices specified in the change order or supplemental agreement authorizing the extra work.

**90-06 Partial payments.** Partial payments will be made to the Contractor at least once each month as the work progresses. Said payments will be based upon estimates, prepared by the RPR, of the value of the work performed and materials complete and in place, in accordance with the contract, plans, and specifications. Such partial payments may also include the delivered actual cost of those materials stockpiled and stored in accordance with paragraph 90-07, *Payment for Materials on Hand*. No partial payment will be made when the amount due to the Contractor since the last estimate amounts to less than five hundred dollars.

a. From the total of the amount determined to be payable on a partial payment, 5 percent of such total amount will be deducted and retained by the Owner for protection of the Owner's interests. Unless otherwise instructed by the Owner, the amount retained by the Owner will be in effect until the final payment is made except as follows:

(1) Contractor may request release of retainage on work that has been partially accepted by the Owner in accordance with Section 50-03. Contractor must provide a certified invoice to the RPR that supports the value of retainage held by the Owner for partially accepted work.

(2) In lieu of retainage, the Contractor may exercise at its option the establishment of an escrow account per paragraph 90-08.

b. The Contractor is required to pay all subcontractors for satisfactory performance of their contracts no later than 30 days after the Contractor has received a partial payment. Contractor must provide the Owner evidence of prompt and full payment of retainage held by the prime Contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed. A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented as required by the Owner. When the Owner has made an incremental acceptance of a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed.

c. When at least 95% of the work has been completed to the satisfaction of the RPR, the RPR shall, at the Owner's discretion and with the consent of the surety, prepare estimates of both the contract value and the cost of the remaining work to be done. The Owner may retain an amount not less than twice the contract value or estimated cost, whichever is greater, of the work remaining to be done. The remainder, less all previous payments and deductions, will then be certified for payment to the Contractor.

It is understood and agreed that the Contractor shall not be entitled to demand or receive partial payment based on quantities of work in excess of those provided in the proposal or covered by approved change orders or supplemental agreements, except when such excess quantities have been determined by the RPR to be a part of the final quantity for the item of work in question.

No partial payment shall bind the Owner to the acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at the time of final payment as provided in paragraph 90-09, *Acceptance and Final Payment*.

The Contractor shall deliver to the Owner a complete release of all claims for labor and material arising out of this contract before the final payment is made. If any subcontractor or supplier fails to furnish such



a release in full, the Contractor may furnish a bond or other collateral satisfactory to the Owner to indemnify the Owner against any potential lien or other such claim. The bond or collateral shall include all costs, expenses, and attorney fees the Owner may be compelled to pay in discharging any such lien or claim.

No partial payments will be made for work items lacking approved submittals, or lacking acceptable manufacturer's material certifications.

Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Airport Sponsor. This clause applies to both DBE and non-DBE subcontractors.

Contractors shall include in their subcontracts language providing that Contractors and subcontractors will use appropriate alternative dispute resolution mechanisms to resolve payment disputes.

The Contractor will not be reimbursed for work performed by subcontractors unless and until the Contractor ensures that the subcontractors are promptly paid for the work they have performed.

**90-07 Payment for materials on hand.** Partial payments may be made to the extent of the delivered cost of materials to be incorporated in the work, provided that such materials meet the requirements of the contract, plans, and specifications and are delivered to acceptable sites on the airport property or at other sites in the vicinity that are acceptable to the Owner. Such delivered costs of stored or stockpiled materials may be included in the next partial payment after the following conditions are met:

- a. The material has been stored or stockpiled in a manner acceptable to the RPR at or on an approved site.
- b. The Contractor has furnished the RPR with acceptable evidence of the quantity and quality of such stored or stockpiled materials.
- c. The Contractor has furnished the RPR with satisfactory evidence that the material and transportation costs have been paid.
- d. The Contractor has furnished the Owner legal title (free of liens or encumbrances of any kind) to the material stored or stockpiled.
- e. The Contractor has furnished the Owner evidence that the material stored or stockpiled is insured against loss by damage to or disappearance of such materials at any time prior to use in the work.

It is understood and agreed that the transfer of title and the Owner's payment for such stored or stockpiled materials shall in no way relieve the Contractor of their responsibility for furnishing and placing such materials in accordance with the requirements of the contract, plans, and specifications.

In no case will the amount of partial payments for materials on hand exceed the contract price for such materials or the contract price for the contract item in which the material is intended to be used.

No partial payment will be made for stored or stockpiled living or perishable plant materials.

The Contractor shall bear all costs associated with the partial payment of stored or stockpiled materials in accordance with the provisions of this paragraph.

**90-08 Payment of withheld funds.** At the Contractor's option, if an Owner withholds retainage in accordance with the methods described in paragraph 90-06 *Partial Payments*, the Contractor may request that the Owner deposit the retainage into an escrow account. The Owner's deposit of retainage into an escrow account is subject to the following conditions:

- a. The Contractor shall bear all expenses of establishing and maintaining an escrow account and escrow agreement acceptable to the Owner.

b. The Contractor shall deposit to and maintain in such escrow only those securities or bank certificates of deposit as are acceptable to the Owner and having a value not less than the retainage that would otherwise be withheld from partial payment.

c. The Contractor shall enter into an escrow agreement satisfactory to the Owner.

d. The Contractor shall obtain the written consent of the surety to such agreement.

**90-09 Acceptance and final payment.** When the contract work has been accepted in accordance with the requirements of Section 50, paragraph 50-15, *Final Acceptance*, the RPR will prepare the final estimate of the items of work actually performed. The Contractor shall approve the RPR's final estimate or advise the RPR of the Contractor's objections to the final estimate which are based on disputes in measurements or computations of the final quantities to be paid under the contract as amended by change order or supplemental agreement. The Contractor and the RPR shall resolve all disputes (if any) in the measurement and computation of final quantities to be paid within 30 calendar days of the Contractor's receipt of the RPR's final estimate. If, after such 30-day period, a dispute still exists, the Contractor may approve the RPR's estimate under protest of the quantities in dispute, and such disputed quantities shall be considered by the Owner as a claim in accordance with Section 50, paragraph 50-16, *Claims for Adjustment and Disputes*.

After the Contractor has approved, or approved under protest, the RPR's final estimate, and after the RPR's receipt of the project closeout documentation required in paragraph 90-11, *Contractor Final Project Documentation*, final payment will be processed based on the entire sum, or the undisputed sum in case of approval under protest, determined to be due the Contractor less all previous payments and all amounts to be deducted under the provisions of the contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

If the Contractor has filed a claim for additional compensation under the provisions of Section 50, paragraph 50-16, *Claims for Adjustments and Disputes*, or under the provisions of this paragraph, such claims will be considered by the Owner in accordance with local laws or ordinances. Upon final adjudication of such claims, any additional payment determined to be due the Contractor will be paid pursuant to a supplemental final estimate.

#### **90-10 Construction warranty.**

a. In addition to any other warranties in this contract, the Contractor warrants that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, workmanship, or design furnished, or performed by the Contractor or any subcontractor or supplier at any tier.

b. This warranty shall continue for a period of one year from the date of final acceptance of the work, except as noted. If the Owner takes possession of any part of the work before final acceptance, this warranty shall continue for a period of one year from the date the Owner takes possession. However, this will not relieve the Contractor from corrective items required by the final acceptance of the project work. Light Emitting Diode emitting diode (LED) light fixtures with the exception of obstruction lighting, must be warranted by the manufacturer for a minimum of four (4) years after date of installation inclusive of all electronics.

c. The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Owner real or personal property, when that damage is the result of the Contractor's failure to conform to contract requirements; or any defect of equipment, material, workmanship, or design furnished by the Contractor.

**d.** The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for one year from the date of repair or replacement.

**e.** The Owner will notify the Contractor, in writing, within seven (7) days after the discovery of any failure, defect, or damage.

**f.** If the Contractor fails to remedy any failure, defect, or damage within 14 days after receipt of notice, the Owner shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

**g.** With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall: (1) Obtain all warranties that would be given in normal commercial practice; (2) Require all warranties to be executed, in writing, for the benefit of the Owner, as directed by the Owner, and (3) Enforce all warranties for the benefit of the Owner.

**h.** This warranty shall not limit the Owner's rights with respect to latent defects, gross mistakes, or fraud.

**i.** The Owner and Engineer will perform a warranty inspection with the Contractor approximately three (3) months before the end of the one year warranty period.

**90-11 Contractor Final Project Documentation.** Approval of final payment to the Contractor is contingent upon completion and submittal of the items listed below. The final payment will not be approved until the RPR approves the Contractor's final submittal. The Contractor shall:

**a.** Provide two (2) copies of all manufacturers warranties specified for materials, equipment, and installations.

**b.** Provide weekly payroll records (not previously received) from the general Contractor and all subcontractors.

**c.** Complete final cleanup in accordance with Section 40, paragraph 40-08, *Final Cleanup*.

**d.** Complete all punch list items identified during the Final Inspection.

**e.** Provide complete release of all claims for labor and material arising out of the Contract.

**f.** Provide a certified statement signed by the subcontractors, indicating actual amounts paid to the Disadvantaged Business Enterprise (DBE) subcontractors and/or suppliers associated with the project.

**g.** When applicable per state requirements, return copies of sales tax completion forms.

**h.** Manufacturer's certifications for all items incorporated in the work.

**i.** All required record drawings, as-built drawings or as-constructed drawings.

**j.** Project Operation and Maintenance (O&M) Manual(s). The Contractor shall prepare a project O&M Manual for the Owner. The O&M Manual shall consist of approved certification submittals, approved shop and setting drawing submittals, approved catalogue data submittals, circuit test results in accordance with Item L-108, and O&M Manuals for equipment installed that have operating procedures and/or maintenance requirements associated with them. The O&M manual shall be neatly bound in a properly sized 3-ring binder and tabbed by specification section. The O&M Manual shall be submitted to the Engineer prior to final payment to facilitate project closeout.

**k.** Security for Construction Warranty.

**l.** Equipment commissioning documentation submitted, if required.

**m.** Contractor's Affidavit of Payment of Debts and Claims (AIA Document G706) from the Prime Contractor.

**n.** Contractor's Affidavit of Release of Liens (AIA Document G706A) from the Prime Contractor.

**o.** Contractor's Affidavit of Payment of Debts and Claims (AIA Document G706) from each subcontractor.

**p.** Contractor's Affidavit of Release of Liens (AIA Document G706A) from each subcontractor.

**q.** Consent of Surety to Final Payment (AIA Document G707) from the Prime Contractor.

**END OF SECTION 90**

## Special Provisions to the General Provisions

**SP 20-16 Addenda and interpretation.** No interpretation of the meaning of the Contract Documents, Contract Drawings or other portions of the Contract will be made orally. Every request for such interpretation must be in writing and addressed to C&S Engineers, Inc., 2355 Northside Drive, San Diego, California 92108, and to be given consideration must be received at the above address at least ten (10) calendar days prior to the date fixed for opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda, which, when issued, will be posted to the website at which the Contract Documents were obtained, not later than seventy-two (72) hours prior to the date fixed for the opening of bids. When addenda are posted to a website, it is the Contractor's responsibility to retrieve the addenda. Failure of any Bidder to receive or retrieve any such addenda or interpretation shall not relieve said Bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract.

**SP 30-09 Conformed Contract Documents.** Conformed Contract Documents sent to the successful bidder for execution will consist of the original contract documents with a copy of the successful bidder's Proposal section inserted. In addition, the Form of Contract will be edited to include a contract date, the Contractor's name and address, the contract parts that are being awarded: Total Bid; Total Base Bid; Total Base Bid plus Add-On No. 1; Total Alternate No. 1 Bid plus Add-On No. 1; etc., the total contract amount awarded, the list of Addenda and dates, the contractor's company name on the signature page, a copy of the Contractor's Performance Bond, Labor and Material Payment Bond and Insurance Certificates will be inserted. The original completed and signed Proposal will be kept on file with the Owner or Engineer.

The Conformed Contracts Documents may incorporate changes to the General Provisions and the Technical Specifications which were made by addendum. If changes are so included, the addendum cover sheets will be included in the Conformed Contract Documents before the Table of Contents, otherwise the full addendum will be included before the Table of Contents.

The cover of the Contract Documents will be labeled "Conformed Contract".

**SP 30-10 Issued for Construction Contract Documents.** Issued for Construction (IFC) Contract Documents will be distributed prior to the start of construction. The IFC contract documents consist of the Conformed Contract Documents and the Contract Drawings. The IFC Contract Documents will include a copy of the executed Form of Contract. The original filled out and signed Form of Contract will be kept on file with the Owner or Engineer. The IFC Construction Drawings will incorporate any changes made by addendum during the bidding process.

The cover of the Contract Documents will be labeled "Conformed Contract" and "Issued for Construction". The title sheet of the Contract Drawings will be labeled "Issued for Construction".

**SP 50-18 Removal of water.** The Contractor shall at all times during construction, provide and maintain proper and satisfactory means and devices for the removal of all water entering the excavations, and shall remove all such water as fast as it may collect, in such manner as shall not interfere with the prosecution of the work or the proper placing of materials or other work.

Removal of water includes the construction and removal of cofferdams, sheeting and bracing, the furnishing of materials and labor necessary therefore, the excavation and maintenance of ditches and sluiceways and the furnishing and operation of pumps, wellpoints and appliances needed to maintain thorough drainage of the work in a satisfactory manner.

Water shall not be allowed to rise over or come in contact with any masonry, concrete or mortar, until at least twenty-four (24) hours after placement and no stream of water shall be allowed to flow over such work until such time as the RPR may permit.

Unless otherwise specified, all excavations which extend down to or below the static groundwater elevations at the sites of structures shall be dewatered by lowering and maintaining the groundwater beneath such excavations at an elevation not less than that specified herein at all times when work thereon is in progress, during subgrade preparation and the placing of the structure or other materials thereon.

Where the presence of fine granular subsurface materials and a high groundwater table may cause the upward flow of water into the excavation with a resulting quick condition, the Contractor shall install and operate a suitable dewatering system to prevent the upward flow of water during construction.

When the water table is within the capillary rise of silt/clay subsurface material, the Contractor shall select and operate his equipment in a manner to prevent the deterioration of the working surface due to the upward flow of water during construction.

The effluent pumped from the dewatering system shall be examined periodically by qualified personnel to determine if the system is operating satisfactorily without the removal of fines.

Unless otherwise directed by the RPR or shown on the Contract Documents, the water level shall not be permitted to rise until construction in the immediate area is completed and the excavation backfilled to the original grade or proposed grade.

Where well points are used, the groundwater shall be lowered and maintained continuously (day and night) at a level not less than two (2) feet below the bottom of the excavation. Excavation will not be permitted at a level lower than two (2) feet above the water level as indicated by the observation wells.

The wellpoint system shall be designed or installed by or under the supervision of an organization whose principal business is wellpointing and has at least five (5) consecutive years of similar experience and can furnish a representative list of satisfactory similar operations. Wellpoint headers, points and other pertinent equipment shall not be placed within the limits of the excavation in such a manner or location as to interfere with the laying of pipe or trenching operations or with the excavation for and/or construction of other structures. Standby gasoline or diesel powered equipment shall be provided so that in the event of failure of the operating equipment, the standby equipment can be readily connected to the dewatering system. The standby equipment shall be maintained in good order and actuated regularly not less than twice a week when directed.

Wellpoints shall be installed in the center of a sand wick drain which shall be placed by means of a sanding shell or other approved means to provide a sand core not less than ten (10) inches in diameter.

Detached observation wells of similar construction to the wellpoints shall be installed at intervals of not less than fifty (50) feet along the opposite side of the trench from the header pipe and line of wellpoints, or around the excavation for a structure or as shown on the Contract Drawings, to a depth of at least five (5) feet below the proposed excavation. In addition, one wellpoint in every fifty (50) feet shall be fitted with a tee, plug and valve so that the wellpoint can be converted for use as an observation well. Observation wells shall be not less than one and one-half (1 1/2) inch in diameter.

Water pumped or drained from excavations, or any sewers, drains, or water courses encountered in the work, shall be disposed of in a suitable manner without injury to adjacent property, the work under

construction, or to pavements, roads and drives. No water shall be discharged to sanitary sewers. Sanitary sewage shall be pumped to sanitary sewers or shall be disposed of by an approved method.

Any damage caused by improper handling of water shall be repaired by the Contractor at his/her own expense.

**SP 50-19 Sheeting and bracing.** The Contractor shall furnish, place and maintain such sheeting, bracing and shoring as required to support the sides and ends of excavations in such a manner as to prevent any movement which would in any way damage the pipe, sewers, masonry or other work, diminish the width necessary, otherwise damage or delay the work, or endanger existing structures, pipes or pavements, or to occasion a hazard to persons engaged on the project or to the general public.

Sheeting and bracing or other trench protection shall be utilized as required for the safety of employees exposed to the hazard of falling or sliding material from any trench or excavation in conformance with the provisions of Industrial Code Rule 23 as amended, and OSHA. Sheeting and bracing must be designed by, signed and stamped by a Professional Engineer licensed to practice in the State in which the project is located.

The Contractor shall be responsible for the adequacy of all trench support systems used and for all damage to persons or property resulting from improper quality, strength, placing, maintenance and removal.

All material used for sheeting and bracing shall be sound and free from defects which might impair its strength or effectiveness.

All timber sheeting and bracing shall be sound and straight, free from cracks, shakes and large or loose knots.

All steel sheeting and bracing shall be sound and straight, free from bends, twists or splits, having square and undamaged ends.

Sheeting shall be driven vertically from the original ground surface as the excavation progresses. Sufficient toe support shall be sustained so as to maintain pressure against the original ground at all times.

Timber sheeting shall be driven so that edges are tight together and steel sheeting driven with the individual members interlocking. All bracing shall be of such design and strength as to maintain the sheeting in its proper position.

The Contractor shall be solely responsible for the adequacy of all sheeting and bracing.

In general, all sheeting and bracing, whether of steel, timber or other material, used to support the sides of trenches or other open excavations, shall be withdrawn as the trenches or other open excavations are being refilled. That portion of the sheeting extending below the top of a pipe, sewer or structure shall be withdrawn, unless otherwise directed, before more than 6 inches of earth is placed above the top of the pipe, sewer or structure and before any bracing is removed. The voids left by the sheeting shall be carefully refilled with selected material and rammed tight with tools especially adapted for the purpose or otherwise as may be approved.

The Contractor shall be responsible for the adequate shoring and/or bracing of any existing utilities encountered during the excavation. Such utilities shall be braced or shored in a manner acceptable to the local jurisdictional agency having authority over the utility encountered. It shall be the responsibility of

the Contractor to prevent damage to or displacement of utilities, and to work with and request the concurrence of the utility's company representative in this matter.

**SP 60-09 Shop and setting drawings and catalogue data.** All materials and equipment used in the work shall be submitted to the RPR, unless otherwise directed. The RPR will forward the submittals to Engineer for their review and approval prior to ordering the equipment. All information required for the Engineer's review of each particular pay item shall be sent as one submittal. In addition, if the pay item interfaces with other pay items (as in the case of electrical equipment), then the submittals covering the interfacing pay items shall be sent at the same time. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Drawings and data shall be submitted sufficiently in advance of the work to permit proper review, including time for necessary revisions and re-submittals. The Contractor is solely responsible for delays in the project accruing directly or indirectly from late submissions or resubmissions of submittals.

Shop and setting drawings shall present complete and accurate information relative to all working dimensions, equipment weight assembly and sectional view, all the necessary details, pertaining to coordinating the work of the Contract, lists of materials and finishes, parts lists and the description thereof, lists of spare parts and tools where such parts or tools are required, no-scale control diagrams for control wiring and control piping, and any other items of information that are required to demonstrate detail compliance with the Plans and Specifications. Each drawing shall be dated and shall show the name of the Project, Contract Number and the name of the manufacturer of the equipment covered by the drawing or drawings. The Engineer will not review any drawings that are not properly identified or that do not contain complete data on the work or that have not been checked, stamped and signed by the Contractor for compliance with the Contract Documents.

The Engineer's review of the Contractor's Shop Drawings signifies only that such drawings appear to be in substantial conformity with the Contract Drawings and Contract Documents. Such review does not indicate approval of every detail of the drawings nor of the work methods of the Contractor which are indicated thereon. Regardless of the corrections made in or made of such drawings by the Engineer, the Contractor will nevertheless be responsible for the accuracy of such drawings, for their conformity to the Plans and Specifications and for the proper fitting and construction of the work.

No work covered by shop and setting drawings shall be done until the drawings have been reviewed and found acceptable by the Engineer. No payment shall be made on any item for which submittals are not received and found acceptable by the Engineer.

**SP 60-10 Electrical shop drawings.** Drawings for electrical equipment shall show physical dimensions and installation details and shall include elementary and connection diagrams for each control assembly and the interconnection diagrams for all equipment. The drawings shall show clearly the coordination of control work, shall identify the components external to electrical equipment and shall define the contact arrangement and control action of the primary and final control elements.

Where standard electrical control equipment having complex internal wiring is required, such as control panels, generator transfer panels, electric or electronic instruments and similar items, the detail shop wiring diagrams for such equipment will not be required, and, if submitted, will in general not be reviewed. The submittal for each such item of equipment shall, however, include an elementary diagram



of the input and output elements which require connections to external equipment, and/or a complete step by step description of the control action of the equipment being submitted. In the event that any questions arise as to the type of information to be presented on the submittal, the supplier shall direct inquiries to the RPR through the Prime Contractor in advance of the preparation of his/her submittal.

**SP 60-11 Substitute items.** If in the Engineer's sole judgment an item of material or equipment proposed by the Contractor does not qualify as an "or-equal" item, it will be considered a substitute item. The Contractor shall submit sufficient information as provided below to allow the Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefore. The procedure for review by the Engineer will include the following and as the Engineer may decide is appropriate under the circumstances. Requests for review of substitute items of material or equipment will not be accepted by the Engineer from anyone other than the Contractor. If the Contractor wishes to furnish or use a substitute item of material or equipment, the Contractor shall first make a written application through the RPR to the Engineer for acceptance thereof, certifying that the substitute will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified and be suited to the same use as that specified. The application will state the extent, if any, to which the evaluation and acceptance of the substitute will prejudice the Contractor's achievement of completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents or Contract Drawings (or in the provisions of any other direct contract with the Owner for work on the Project) to adapt the design to the substitute and whether or not incorporation or use of the substitute in connection with the work is subject to payment of any license fee or royalty. If the substitute item requires modifications to any existing features or to any proposed work, the application shall also include details of proposed modifications necessary to accommodate the substitute item. Such details shall include scaled layouts, dimensions and other pertinent information to enable the Engineer to accurately assess the entire application. If the substitute item and proposed modifications are approved, the Contractor, at no additional cost to the Owner, shall do all work necessary to make such modifications and absorb all costs of any related changes imposed on other Contractor's. All variations of the substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by the Engineer in evaluating the substitute. The Engineer may require the Contractor to furnish additional data about the substitute.

- A. Engineer's Evaluation.** The Engineer will be the sole judge of acceptability. No substitute will be ordered, installed or utilized without the Engineer's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. The Engineer will record time required by the Engineer and the Engineer's Consultants in evaluating substitutes proposed or submitted by the Contractor and in making changes in the Contract Documents or Contract Drawings (or in the provisions of any other direct contract with Owner for work on the Project) occasioned thereby. The Engineer's charges shall be at the same rates the Engineer charges for such services to the Owner.
- B. Contractor's Expense.** All data to be provided by the Contractor in support of any substitute item will be at the Contractor's expense. In order to aid the Engineer in determining the equality of an or substitute item (when compared to the item actually specified), the Contractor shall arrange for the performance of any tests requested by the Engineer. The Engineer shall determine the nature, extent, tester and degree of supervision of such tests. Certified test results shall be mailed directly to the Engineer for all tests requested. All costs of such tests, including engineering costs, shall be borne by the Contractor. The Owner may require the Contractor to furnish at the Contractor's expense a special performance guarantee or other surety with respect to

any substitute. Whether or not the Engineer accepts a substitute item so proposed or submitted by the Contractor, the Contractor shall reimburse the Owner for the charges of the Engineer and the Engineer's Consultants for evaluating each such substitute item. The costs for evaluating substitute items shall be deducted from the Owner's payment to the Contractor.

**SP 60-12 Submittal procedure.** The following procedure has been established for the submittal and processing of shop and setting drawings, working drawings, and catalogue data. Departures from this procedure may result in delay and misunderstandings.

- A. All information required for the Engineer's review of each particular pay item shall be sent as one submittal to the RPR with an attached submittal cover sheet. In addition, if the pay item interfaces with other pay items (as in the case of electrical equipment), then the submittals covering the interfacing pay items shall be sent at the same time.
- B. In submitting certifications, drawings, catalog data, and similar items for review, one (1) electronic copy shall be submitted to OneDrive. Access to OneDrive will be provided by the RPR upon award of the Contract. The submittal will be reviewed by the Engineer, stamped and signed. The submittal bearing the reviewed stamp and signature will be reloaded back to OneDrive by the Engineer. It will be the Contractor's responsibility to check OneDrive for updated submittals.

The Contractor shall provide one (1) hard copy of each of the stamped and signed submittals for inclusion in the O&M Manual prior to contract closeout.

The RPR shall be responsible for printing sufficient copies of each submittal for their own records. The Contractor shall be responsible for printing sufficient copies of each submittal for their own records and distributing to each of the other prime or subcontractors whose work is to be correlated with such submittals.

C. Submittals will be stamped by the Engineer as follows:

- 1. "Approved", if no change or rejection is made.
- 2. "Approved as Noted", if minor changes or additions are made, but re-submittal is not considered necessary. All copies will bear the corrective marks.
- 3. "Revise and Resubmit", if the changes requested are extensive. In this case, re-submittal after correction is necessary and the same number of copies shall be included in the re-submittal as in the first submittal.
- 4. "Rejected", if it is considered that the data submitted cannot with reasonable revision meet the requirements of the Plans and Specifications.
- 5. "Submit Specified Item", if the data submitted is not clear, complete, or for other reasons cannot be examined by the Engineer to establish compliance with the Plans and Specifications.

D. Unless otherwise approved in specific cases, all submittals must be transmitted by the Prime Contractor, not by the Subcontractors or vendors.

Any changes in re-submittals, other than those indicated as requested, must be specifically brought to the attention of the RPR. Changes or additions shall not be made in, or to, any fabricated item, part or material without having a re-review.

**SP 70-22 Additional sanitary, health, and safety provisions.**

The Contractor shall promptly, and before the following conditions are disturbed, notify the Owner, in writing, of any:

1. Material that the contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.
2. Subsurface or latent physical conditions at the site differing from those indicated by information about the site made available to bidders prior to the deadline for submitting bids.
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.

The Owner 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 in the contract.

In the event that a dispute arises between the Owner 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 which pertain to the resolution of disputes and protests between the contracting parties.

**SP 70-23 Federal Contract Provisions for procurement and contracting under AIP.**

The Contractor is required to insert these contract provision in each lower tier contract (e.g. subcontract or sub-agreement).

The Contractor is required (including all subcontractors) to incorporate these contract provisions by reference for work done under any purchase orders, rental agreements and other agreements for supplies or services.

The Contractor shall be responsible for compliance with these contract provisions by any subcontractor, lower-tier subcontractor or service provider.

**A1 ACCESS TO RECORDS AND REPORTS****ACCESS TO RECORDS AND REPORTS**

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Owner, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees

to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

## **A2 AFFIRMATIVE ACTION REQUIREMENT**

### **NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

#### **Timetables**

Goals for minority participation for each trade: 19%

Goals for female participation in each trade: 6.9%

These goals are applicable to all of the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the “covered area” is .

### **A3 BREACH OF CONTRACT TERMS**

#### **BREACH OF CONTRACT TERMS**

Any violation or breach of terms of this contract on the part of the Contractor or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement.

Owner will provide Contractor written notice that describes the nature of the breach and corrective actions the Contractor must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Contractor until such time the Contractor corrects the breach or the Owner elects to terminate the contract. The Owner’s notice will identify a specific date by which the Contractor must correct the breach. Owner may proceed with termination of the contract if the Contractor fails to correct the breach by the deadline indicated in the Owner’s notice.

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

### **A4 BUY AMERICAN PREFERENCE**

#### **BUY AMERICAN PREFERENCE**

The Contractor certifies that its bid/offer is in compliance with 49 USC § 50101, BABA and other related Made in America Laws (Per Executive Order 14005 “Made in America Laws” means all statutes, regulations, rules, and Executive Orders relating to federal financial assistance awards or federal procurement, including those that refer to “Buy America” or “Buy American,” that require, or provide a preference for, the purchase or acquisition of goods, products, or materials produced in the United States, including iron, steel, and manufactured products offered in the United States.), U.S. statutes, guidance, and FAA policies, which provide that Federal funds may not be obligated unless all iron, steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

The bidder or offeror must complete and submit the certification of compliance with FAA’s Buy American Preference, BABA and Made in America laws included herein with their bid or offer. The Airport Sponsor/Owner will reject as nonresponsive any bid or offer that does not include a completed certification of compliance with FAA’s Buy American Preference and BABA.

The bidder or offeror certifies that all constructions materials, defined to mean an article, material, or supply other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and

polymers used in fiber optic cables); glass (including optic glass); lumber; or drywall used in the project are manufactured in the U.S.

### **Certificate of Compliance with FAA Buy American Preference – Construction Projects**

**NOTE: Certification is included in the PROPOSAL.**

#### **A5 CIVIL RIGHTS – GENERAL**

##### **GENERAL CIVIL RIGHTS PROVISIONS**

In all its activities within the scope of its airport program, the Contractor agrees to comply with pertinent statutes, Executive Orders, and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

The above provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract.

#### **A6 CIVIL RIGHTS – TITLE VI ASSURANCE**

##### **Title VI Solicitation Notice:**

The Sponsor, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and no businesses will be discriminated against on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in consideration for an award.

##### **Title VI List of Pertinent Nondiscrimination Acts and Authorities**

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 et seq.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 et seq.) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-259) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990 (42 USC § 12101, et seq) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations);
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must Guidelines for Contract Provisions for Obligated Sponsors and Airport Improvement Program Projects Issued on November 18, 2022 take reasonable steps to ensure that LEP persons have meaningful access to your programs [70 Fed. Reg. 74087 (2005)];
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC § 1681, et seq).

#### **Compliance with Nondiscrimination Requirements:**

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”), agrees as follows:

1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and

leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.

3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a Contractor's noncompliance with the non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
  - a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or
  - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.



**A7 CLEAN AIR AND WATER POLLUTION CONTROL****CLEAN AIR AND WATER POLLUTION CONTROL**

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 USC §§ 740-7671q) and the Federal Water Pollution Control Act as amended (33 USC §§ 1251-1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

Contractor must include this requirement in all subcontracts that exceeds \$150,000.

**A8 CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS****CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS****1. Overtime Requirements.**

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**2. Violation; Liability for Unpaid Wages; Liquidated Damages.**

In the event of any violation of the clause set forth in paragraph (1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this clause, in the sum of \$29 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this clause.

**3. Withholding for Unpaid Wages and Liquidated Damages.**

The Federal Aviation Administration (FAA) or the Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this clause.

**4. Subcontractors.**

The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) and also a clause requiring the subcontractor to include these

clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this clause.

**A9 COPELAND “ANTI-KICKBACK” ACT**

**COPELAND “ANTI-KICKBACK” ACT**

Contractor must comply with the requirements of the Copeland “Anti-Kickback” Act (18 USC 874 and 40 USC 3145), as supplemented by Department of Labor regulation 29 CFR part 3. Contractor and subcontractors are prohibited from inducing, by any means, any person employed on the project to give up any part of the compensation to which the employee is entitled. The Contractor and each Subcontractor must submit to the Owner, a weekly statement on the wages paid to each employee performing on covered work during the prior week. Owner must report any violations of the Act to the Federal Aviation Administration.

**A10 DAVIS-BACON REQUIREMENTS**

**DAVIS-BACON REQUIREMENTS**

**1. Minimum Wages.**

- (i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer’s payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

- (ii)
- (A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination;
  - (2) The classification is utilized in the area by the construction industry; and
  - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (C) In the event the Contractor, the laborers, or mechanics to be employed in the classification, or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, that the Secretary of Labor has found, upon the written

request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program

## **2. Withholding.**

The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to the Contractor, Sponsor, Applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

## **3. Payrolls and Basic Records.**

- (i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records that show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (ii)
  - (A) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR § 5.5(a)(3)(i), except that full social

security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit them to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, Sponsor, or Owner).

- (B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
- (1) That the payroll for the payroll period contains the information required to be provided under 29 CFR § 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR § 5.5 (a)(3)(i), and that such information is correct and complete;
  - (2) That each laborer and mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR Part 3;
  - (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.
- (D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(E) A pay application can not be deemed acceptable until all Contractor and subcontractor are submitted and approved by the Owner representative for the work period of the pay application.

- (iii) The Contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Sponsor, the Federal Aviation Administration, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, Sponsor, applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR § 5.12.

#### **4. Apprentices and Trainees.**

- (i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or

a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (ii) Trainees. Except as provided in 29 CFR § 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination that provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (iii) Equal Employment Opportunity. The utilization of apprentices, trainees, and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

## **5. Compliance with Copeland Act Requirements.**

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

## **6. Subcontracts.**

The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR §§ 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR § 5.5.

**7. Contract Termination: Debarment.**

A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR § 5.12.

**8. Compliance with Davis-Bacon and Related Act Requirements.**

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes Concerning Labor Standards.**

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of Eligibility.**

- (i) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR § 5.12(a)(1).
- (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR § 5.12(a)(1).
- (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 USC § 1001.

**A11 DEBARMENT AND SUSPENSION****CERTIFICATION OF OFFERER/BIDDER REGARDING DEBARMENT**

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

**CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT**

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>.



2. Collecting a certification statement similar to the Certification of Offeror /Bidder Regarding Debarment, above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the Federal Aviation Administration later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

## **A12 DISADVANTAGED BUSINESS ENTERPRISE**

### **Contract Assurance (§ 26.13) –**

The Contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- 1) Withholding monthly progress payments;
- 2) Assessing sanctions;
- 3) Liquidated damages; and/or
- 4) Disqualifying the Contractor from future bidding as non-responsible.

**Prompt Payment (§26.29)** – The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 7 days from the receipt of each payment the prime contractor receives from the Owner. The prime contractor agrees further to return retainage payments to each subcontractor within 7 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Owner. This clause applies to both DBE and non-DBE subcontractors.

The Monthly Payment Report, found later in this section, is required to be submitted on a monthly basis throughout the entirety of the project. A progress payment will not be deemed complete and able to be processed until the reports are submitted. This report monitors the payments by providing a running tally of actual DBE attainments and compares this to the commitments.

The Monthly Payment Report, found later in this section, is required to be submitted along with a Disadvantaged Business Enterprise DBE Participation Summary for each DBE subcontractor on a monthly basis Subcontractor's Prompt Payment Certification throughout the entirety of the project. A progress payment will not be deemed complete and able to be processed until the reports are submitted. This report monitors the payments by providing a running tally of actual DBE attainments and compares this to the commitments.

The prime contractor is responsible for issuing the Subcontractor's Prompt Payment Certification to all subcontractors under this contract, and is required to ensure that all subcontractors issue the certificate to each of their subcontractors. Each subcontractor, DBE and non-DBE firms, are required to complete the Subcontractor's Prompt Payment Certification, found later in this section or electronically. A completed copy of this form shall be submitted to the Owner's representative, the Prime Contractor and the Contractor you are working for at least 7 days prior to an application for payment. This form is to be submitted with each payment application by every subcontractor, DBE and non-DBE firms until each subcontractor's work is complete and they have been paid in full and state so on their final Subcontractor's Prompt Payment Certification. Each Subcontractor's Prompt Payment Certificate must be received by the Owner's representative or the progress payment will not be deemed complete and able to be processed.

**Monitoring Responsibilities (§26.37)** – The prime contractor agrees to carry out all appropriate mechanisms to ensure compliance with 49 CFR Part 26 program requirements by all program participants, including monitoring of payments.

This project requires the following method to be utilized in tracking payments:

The Monthly Payment Report, found later in this section, is required to be submitted on a monthly basis throughout the entirety of the project. This report monitors the payments by providing a running tally of actual DBE attainments and compares this to the commitments. This report is submitted monthly throughout the entirety of the project.

The Disadvantaged Business Enterprise (DBE) Participation Summary Form, must be completed and signed by the DBE firm and Prime Contractor upon completion of the project. The intent of this form is to confirm total payments made to DBE firms.

or

Each sub-contractor, supplier must electronically acknowledge payments from the prime prior to the submission of the next pay application.

The following language in this section was taken from various sections of 49 CFR Part 26 titled Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs. They are not intended to be all encompassing, nor a comprehensive reiteration of the regulation.

- A. The Sponsor has established a Disadvantaged Business Enterprise (DBE) program in accordance with regulations of the U.S. Department of Transportation (DOT), 49 CFR Part 26. The Sponsor has received, or will receive, Federal financial assistance from the Department of Transportation, and as a condition of receiving this assistance, the Sponsor has signed an assurance that it will comply with 49 CFR Part 26.

It is the policy of the Sponsor to ensure that DBEs as defined in part 26, have an equal opportunity to receive and participate in DOT-assisted contracts. It is also the policy of the Sponsor:

1. To ensure nondiscrimination in the award and administration of DOT – assisted contracts;
  2. To create a level playing field on which DBEs can compete fairly for DOT-assisted contracts;
  3. To ensure that the DBE Program is narrowly tailored in accordance with applicable law;
  4. To ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are permitted to participate as DBEs;
  5. To help remove barriers to the participation of DBEs in DOT assisted contracts;
  6. To promote the use of DBEs in all types of federally-assisted contracts and procurement activities;
  7. To assist the development of firms that can compete successfully in the market place outside the DBE Program; and
  8. To make appropriate use of the flexibility afforded to recipients of Federal financial assistance in establishing and providing opportunities for DBEs.
- B. The obligation of the bidder is to make good faith efforts. The bidder can demonstrate that it has done so either by meeting the contract goal or documenting good faith efforts. Examples of good faith efforts are found in Appendix A to Part 26. Determination whether the bidder has made a good faith effort will be made by the Sponsor's DBE Liaison Officer. The Contractor's DBE Plan must be acceptable to the Sponsor before entering into a contract with the bidder.

Guidance pertaining to good faith efforts is provided in Appendix A to 49 CFR Part 26. In general, the bidder must demonstrate that they have taken all necessary and reasonable steps to achieve the identified DBE goal. The bidder should adequately document all such efforts, including contacts of DBE firms that are not interested.

Good Faith Efforts:

Bidder must demonstrate that they made good faith efforts to achieve participation with DBE firms. This requires that the bidder show that it took all necessary and reasonable steps to secure participation by certified DBE firms. Mere pro forma efforts will not be considered as a good faith effort.

Such actions constituting evidence of good faith efforts include but are not limited to:

- Soliciting DBE participation through all reasonable and available means. This may include but not limited to phone, emails, social media, public advertisements, outreach to known certified DBE firms.
- Researching the state's DBE directories to obtain a list of certified DBE firms.
- Selecting portions of work that increases the likelihood that DBE firms will be available to participate.
- Providing DBE firms with sufficient information and time to review the project plans and specifications.
- Documenting all contacts with DBE firms. This includes name, address, phone number, date of contact and record of conversation/negotiation.

- C. Within 7 days of being informed by the Airport that it is not responsive because it has not documented sufficient good faith efforts, a bidder may request administrative reconsideration. Bidder/offers should make this request in writing to the Sponsor's reconsideration official. The reconsideration official will not have played any role in the original determination that the bidder did not document sufficient good faith efforts.

As part of this reconsideration, the bidder/offeror will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. The bidder/offeror will have the opportunity to meet in person with the reconsideration official to discuss the issue of whether it met the goal or made adequate good faith efforts to do so. We will send the bidder/offeror a written decision on reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. The result of the reconsideration process is not administratively appealable to the Department of Transportation.

- D. Termination of DBE Subcontracts (49 CFR § 26.53(f))** – The prime contractor must not terminate a DBE subcontractor listed in response to the Contractor's DBE Plan and DBE Letter of Intent Forms (or an approved substitute DBE firm) without prior written consent of the Owner. This includes, but is not limited to, instances in which the prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

The prime contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent the Owner. Unless the Owner consent is provided, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

The Owner may provide such written consent only if the Owner agrees, for reasons stated in the concurrence document, that the prime contractor has good cause to terminate the DBE firm. For purposes of this paragraph, good cause includes the circumstances listed in 49 CFR §26.53.

Before transmitting to the Owner its request to terminate and/or substitute a DBE subcontractor, the prime contractor must give notice in writing to the DBE subcontractor, with a copy to the Owner, of its intent to request to terminate and/or substitute, and the reason for the request.

The prime contractor must give the DBE five days to respond to the prime contractor's notice and advise the Owner and the contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Owner should not approve the prime contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), the Owner may provide a response period shorter than five days.

In addition to post-award terminations, the provisions of this section apply to preaward deletions of or substitutions for DBE firms put forward by offerors in negotiated procurements.

The Airport will require a contractor to make good faith efforts to replace a DBE that is terminated or has otherwise failed to complete its work on a contract with another

certified DBE. These good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the contract goal that we established for the procurement. The good faith efforts shall be documented by the contractor. If we request documentation from the contractor under this provision, the contractor shall submit the documentation to us within 7 days, which may be extended for an additional 7 days if necessary at the request of the contractor, and the recipient shall provide a written determination to the contractor stating whether or not good faith efforts have been demonstrated.

As stated in Contract Assurance § 26.13, failure by the contractor to carry out the requirements of this part is a material breach of the contract and may result in the termination of the contract or such other remedies set forth in that section that we deem appropriate if the prime contractor fails to comply with the requirements of this section.

If the contractor fails or refuses to comply in the time specified, our contracting office will issue an order stopping all or part of payment/work until satisfactory action has been taken. If the contractor still fails to comply, the contracting officer may issue a termination for default proceeding.

- E. The sponsor will require the contractor to maintain records and documents of payments to DBEs for three years following the performance of the contract. These records will be made available for inspection upon request by any authorized representative of the Sponsor or DOT. This reporting requirement also extends to any certified DBE subcontractor.
- F. Fostering Small Business Participation (49 CFR Part 26, §26.39).

The Sponsor has determined that an SBE program is not feasible for this Contract.

## **A13 DISTRACTED DRIVING**

### **TEXTING WHEN DRIVING**

In accordance with Executive Order 13513, “Federal Leadership on Reducing Text Messaging While Driving”, (10/1/2009) and DOT Order 3902.10, “Text Messaging While Driving”, (12/30/2009), the Federal Aviation Administration encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or subgrant.

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding \$10,000 that involve driving a motor vehicle in performance of work activities associated with the project.

**A14 PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT**

Contractor and Subcontractor agree to comply with mandatory standards and policies relating to use and procurement of certain telecommunications and video surveillance services or equipment in compliance with the National Defense Authorization Act [Public Law 115-232 § 889(f)(1)].

**A15 DRUG FREE WORKPLACE REQUIREMENTS**

The Drug-Free Workplace Act of 1988 requires some Federal contractors and all Federal grantees to agree that they will provide drug-free workplaces as a condition of receiving a contract or grant from a Federal agency. The Act does not apply to contractors, subcontractors, or subgrantees, although the Federal grantee's workplace may be where the contractors, subcontractors, or subgrantees are working.

**A16 EQUAL EMPLOYEMENT OPPORTUNITY (EEO)****EQUAL OPPORTUNITY CLAUSE**

During the performance of this contract, the Contractor agrees as follows:

- (1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff, or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- (2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- (3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

- (4) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the Contractor's commitments under this section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (5) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor .
- (6) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any such rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (8) The Contractor will include the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY  
CONSTRUCTION CONTRACT SPECIFICATIONS**

1. As used in these specifications:
  - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
  - b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;
  - c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;

- d. "Minority" includes:
- (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
  - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
  - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
  - (4) American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR part 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.



5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
  - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
  - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
  - c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
  - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
  - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the

Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring

- all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
  - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
  - p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.
11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of

Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR part 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g. those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

#### **A17 FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)**

##### **SOLICITATION CLAUSE**

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.

The Contractor has full responsibility to monitor compliance to the referenced statute or regulation. The Contractor must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

#### **A18 LOBBYING AND INFLUENCING FEDERAL EMPLOYEES**

**NOTE: Certification is included in the PROPOSAL.**

**A19 PROHIBITION of SEGREGATED FACILITIES****PROHIBITION OF SEGREGATED FACILITIES**

- (a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Employment Opportunity clause in this contract.
- (b) “Segregated facilities,” as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.
- (c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Employment Opportunity clause of this contract .

**A20 OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970****CONTRACT CLAUSE**

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. The employer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The employer retains full responsibility to monitor its compliance and their subcontractor’s compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (29 CFR Part 1910). The employer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

**A21 PROCUREMENT OF RECOVERED MATERIALS****PROCUREMENT OF RECOVERED MATERIALS**

Contractor and subcontractor agree to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and the regulatory provisions of 40 CFR Part 247. In the performance of this contract and to the extent practicable, the Contractor and subcontractors are to use products containing the highest percentage of recovered materials for items designated by the Environmental Protection Agency (EPA) under 40 CFR Part 247 whenever:

- 1) The contract requires procurement of \$10,000 or more of a designated item during the fiscal year; or

- 2) The contractor has procured \$10,000 or more of a designated item using Federal funding during the previous fiscal year.

The list of EPA-designated items is available at [www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products](http://www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products).

Section 6002(c) establishes exceptions to the preference for recovery of EPA-designated products if the contractor can demonstrate the item is:

- a) Not reasonably available within a timeframe providing for compliance with the contract performance schedule;
- b) Fails to meet reasonable contract performance requirements; or
- c) Is only available at an unreasonable price.

## **A22 RIGHT TO INVENTIONS**

### **RIGHTS TO INVENTIONS**

Contracts or agreements that include the performance of experimental, developmental, or research work must provide for the rights of the Federal Government and the Owner in any resulting invention as established by 37 CFR part 401, Rights to Inventions Made by Non-profit Organizations and Small Business Firms under Government Grants, Contracts, and Cooperative Agreements. This contract incorporates by reference the patent and inventions rights as specified within 37 CFR § 401.14. Contractor must include this requirement in all sub-tier contracts involving experimental, developmental, or research work.

## **A23 SEISMIC SAFETY (Section not applicable.)**

## **A24 TAX DELINQUENCY AND FELONY CONVICTIONS**

**NOTE: Certification is included in the PROPOSAL.**

## **A25 TERMINATION OF CONTRACT**

### **TERMINATION FOR CONVENIENCE (CONSTRUCTION & EQUIPMENT CONTRACTS)**

The Owner may terminate this contract in whole or in part at any time by providing written notice to the Contractor. Such action may be without cause and without prejudice to any other right or remedy of Owner. Upon receipt of a written notice of termination, except as explicitly directed by the Owner, the Contractor shall immediately proceed with the following obligations regardless of any delay in determining or adjusting amounts due under this clause:

1. Contractor must immediately discontinue work as specified in the written notice.
2. Terminate all subcontracts to the extent they relate to the work terminated under the notice.
3. Discontinue orders for materials and services except as directed by the written notice.

4. Deliver to the Owner all fabricated and partially fabricated parts, completed and partially completed work, supplies, equipment and materials acquired prior to termination of the work, and as directed in the written notice.
5. Complete performance of the work not terminated by the notice.
6. Take action as directed by the Owner to protect and preserve property and work related to this contract that Owner will take possession.

Owner agrees to pay Contractor for:

- 1) completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination;
- 2) documented expenses sustained prior to the effective date of termination in performing work and furnishing labor, materials, or equipment as required by the contract documents in connection with uncompleted work;
- 3) reasonable and substantiated claims, costs, and damages incurred in settlement of terminated contracts with Subcontractors and Suppliers; and
- 4) reasonable and substantiated expenses to the Contractor directly attributable to Owner's termination action.

Owner will not pay Contractor for loss of anticipated profits or revenue or other economic loss arising out of or resulting from the Owner's termination action.

The rights and remedies this clause provides are in addition to any other rights and remedies provided by law or under this contract.

#### **TERMINATION FOR DEFAULT (CONSTRUCTION)**

Section 80-09 of FAA Advisory Circular 150/5370-10 establishes conditions, rights, and remedies associated with Owner termination of this contract due to default of the Contractor.

#### **TERMINATION FOR DEFAULT (EQUIPMENT)**

The Owner may, by written notice of default to the Contractor, terminate all or part of this Contract if the Contractor:

1. Fails to commence the Work under the Contract within the time specified in the Notice- to-Proceed;
2. Fails to make adequate progress as to endanger performance of this Contract in accordance with its terms;
3. Fails to make delivery of the equipment within the time specified in the Contract, including any Owner approved extensions;
4. Fails to comply with material provisions of the Contract;
5. Submits certifications made under the Contract and as part of their proposal that include false or fraudulent statements; or
6. Becomes insolvent or declares bankruptcy.

If one or more of the stated events occur, the Owner will give notice in writing to the Contractor and Surety of its intent to terminate the contract for cause. At the Owner's discretion, the notice may allow the Contractor and Surety an opportunity to cure the breach or default.

If within 10 days of the receipt of notice, the Contractor or Surety fails to remedy the breach or default to the satisfaction of the Owner, the Owner has authority to acquire equipment by other procurement action. The Contractor will be liable to the Owner for any excess costs the Owner incurs for acquiring such similar equipment.

Payment for completed equipment delivered to and accepted by the Owner shall be at the Contract price. The Owner may withhold from amounts otherwise due the Contractor for such completed equipment, such sum as the Owner determines to be necessary to protect the Owner against loss because of Contractor default.

Owner will not terminate the Contractor's right to proceed with the Work under this clause if the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such acceptable causes include: acts of God, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, and severe weather events that substantially exceed normal conditions for the location.

If, after termination of the Contractor's right to proceed, the Owner determines that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the Owner issued the termination for the convenience the Owner.

The rights and remedies of the Owner in this clause are in addition to any other rights and remedies provided by law or under this contract.

#### **A26 TRADE RESTRICTION CERTIFICATION**

**NOTE: Certification is included in the PROPOSAL.**

#### **A27 VETERAN'S PREFERENCE**

##### **VETERAN'S PREFERENCE**

In the employment of labor (excluding executive, administrative, and supervisory positions), the Contractor and all sub-tier contractors must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 USC § 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

#### **A28 DOMESTIC PREFERENCES FOR PROCUREMENTS**

##### **CERTIFICATION REGARDING DOMESTIC PREFERENCES FOR PROCUREMENTS**

The Bidder or Offeror certifies by signing and submitting this bid or proposal that, to the greatest extent practicable, the Bidder or Offeror has provided a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including, but not limited to, iron, aluminum, steel, cement, and other manufactured products) in compliance with 2 CFR § 200.322.



**SP 70-24 CALTRANS standard specifications (section 7 selections) for California state contracts (Appendix A).**

NOTE: As used in this Section, the term “Engineer” may refer to RPR. See FAA Section 10 for definitions of Engineer and RPR.

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter, "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract (the word "Contractor" herein refers to any party other than the State, whether a contractor, licensor, licensee, lessor, lessee or any other party):

In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the terms of this Appendix A, the terms of this Appendix A shall control.

This contract shall be governed by the laws of the State of California except where the Federal supremacy clause requires otherwise.

**7-1.01 Laws to be Observed.** The Contractor shall keep fully informed of all existing and future State and Federal laws and county and municipal ordinances and regulations which in any manner affect those engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of the work, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. The Contractor shall at all times observe and comply with, and shall cause all the Contractor's agents and employees to observe and comply with all existing and future laws, ordinances, regulations, orders and decrees of bodies or tribunals having any jurisdiction or authority over the work; and shall protect and indemnify the State of California, and all officers and employees thereof connected with the work, including but not limited to the Director and the Engineer, against any claim or liability arising from or based on the violation of any law, ordinance, regulation, order or decree, whether by the Contractor or the Contractor's employees. If any discrepancy or inconsistency is discovered in the plans, drawings, specifications or contract for the work in relation to any law, ordinance, regulation, order or decree, the Contractor shall forthwith report the same to the Engineer in writing.

**7-1.01A Labor Code Requirements.** Attention is directed to the following requirements of the Labor Code:

**7-1.01A(1) Hours of Labor.** Eight hours labor constitutes a legal day's work. The Contractor or any subcontractor under the Contractor shall forfeit, as a penalty to the State of California, twenty-five dollars (\$25) for each worker employed in the execution of the contract by the respective Contractor or subcontractor for each calendar day during which that worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the requirements of the Labor Code, and in particular, Section 1810 to Section 1815, thereof, inclusive, except that work performed by employees of Contractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon compensation for all hours worked in excess of 8 hours per day at not less than one and one-half times the basic rate of pay, as provided in Section 1815 thereof.

**7-1.01A(2) Prevailing Wage.** The Contractor and any subcontractor under the Contractor shall comply with Labor Code Sections 1774 and 1775. Pursuant to Section 1775, the Contractor and any subcontractor under the Contractor shall forfeit to the State or political subdivision on whose behalf the contract is made or awarded a penalty of not more than fifty dollars (\$50) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of Industrial Relations for the work or craft in which the worker is employed for any public work done under the contract by the Contractor or by any subcontractor under the Contractor in violation of the requirements of the Labor Code and in particular, Labor Code Sections 1770 to 1780, inclusive. The amount of this forfeiture shall be determined by the Labor Commissioner and shall be based on consideration of the mistake, inadvertence, or neglect of the Contractor or subcontractor in failing to pay the correct rate of prevailing wages, or the previous record of the Contractor or subcontractor in meeting their respective prevailing wage obligations, or the willful failure by the Contractor or subcontractor to pay the correct rates of prevailing wages. A mistake, inadvertence, or neglect in failing to pay the correct rate of prevailing wages is not excusable if the Contractor or subcontractor had knowledge of the obligations under the Labor Code. In addition to the penalty and pursuant to Labor Code Section 1775, the difference between the 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 the Contractor or subcontractor. If a worker employed by a subcontractor on a public works project is not paid the general prevailing per diem wages by the subcontractor, the prime contractor of the project is not liable for the penalties described above unless the prime contractor had knowledge of that failure of the subcontractor to pay the specified prevailing rate of wages to those workers or unless the prime contractor fails to comply with all of the following requirements:

- (1) The contract executed between the contractor and the subcontractor for the performance of work on the public works project shall include a copy of the requirements in Sections 1771, 1775, 1776, 1777.5, 1813 and 1815 of the Labor Code.
- (2) The contractor shall monitor the payment of the specified general prevailing rate of per diem wages by the subcontractor to the employees, by periodic review of the certified payroll records of the subcontractor.
- (3) Upon becoming aware of the subcontractor's failure to pay the specified prevailing rate of wages to the subcontractor's workers, the contractor shall diligently take corrective action to halt or rectify the failure, including, but not limited to, retaining sufficient funds due the subcontractor for work performed on the public works project.
- (4) Prior to making final payment to the subcontractor for work performed on the public works project, the contractor shall obtain an affidavit signed under penalty of perjury from the subcontractor that the subcontractor has paid the specified general prevailing rate of per diem wages to the subcontractor's employees on the public works project and any amounts due pursuant to Section 1813 of the Labor Code.

Pursuant to Section 1775 of the Labor Code, the Division of Labor Standards Enforcement shall notify the Contractor on a public works project within 15 days of the receipt by the Division of Labor Standards Enforcement of a complaint of the failure of a subcontractor on that public works project to pay workers the general prevailing rate of per diem wages. If the Division of Labor Standards Enforcement determines that employees of a subcontractor were not paid the general prevailing rate of per diem wages and if the Department did not retain sufficient money under the contract to pay those employees the balance of wages owed under the general prevailing rate of per diem wages, the contractor shall withhold an amount of moneys due the subcontractor sufficient to pay those employees the general prevailing rate of per diem wages if requested by the Division of Labor Standards Enforcement. The Contractor shall pay any money retained from and owed to a subcontractor upon receipt of notification by the Division of Labor Standards Enforcement that the wage complaint has been resolved. If notice of the resolution of the wage complaint has not been received by the Contractor within 180 days of the filing of a valid notice of completion or acceptance of the public works project, whichever occurs later, the Contractor shall pay all moneys retained from the subcontractor to the Department. These moneys shall be retained by the Department pending the final decision of an enforcement action.

Pursuant to the requirements in Section 1773 of the Labor Code, the Department has obtained the general prevailing rate of wages (which rate includes employer payments for health and welfare, pension, vacation, travel time and subsistence pay as provided for in Section 1773.8 of the Labor Code, apprenticeship or other training programs authorized by Section 3093 of the Labor Code, and similar purposes) applicable to the work to be done, for straight time, overtime, Saturday, Sunday and holiday work. The holiday wage rate listed shall be applicable to all holidays recognized in the collective bargaining agreement of the particular craft, classification or type of workmen concerned.

The general prevailing wage rates and any applicable changes to these wage rates are available at the Labor Compliance Office at the offices of the District Director of Transportation for the district in which the work is situated. General prevailing wage rates are also available from the California Department of Industrial Relations' Internet Web Site at: <http://www.dir.ca.gov>.

The wage rates determined by the Director of Industrial Relations for the project refer to expiration dates. Prevailing wage determinations with a single asterisk after the expiration date are in effect on the date of advertisement for bids and are good for the life of the contract. Prevailing wage determinations with double asterisks after the expiration date indicate that the wage rate to be paid for work performed after this date has been determined. If work is to extend past this date, the new rate shall be paid and incorporated in the contract. The Contractor shall contact the Department of Industrial Relations as indicated in the wage rate determinations to obtain predetermined wage changes.

Pursuant to Section 1773.2 of the Labor Code, general prevailing wage rates shall be posted by the Contractor at a prominent place at the site of the work.

Changes in general prevailing wage determinations which conform to Labor Code Section 1773.6 and Title 8 California Code of Regulations Section 16204 shall apply

to the project when issued by the Director of Industrial Relations at least 10 days prior to the date of the Notice to Contractors for the project.

The State will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth in the contract. The possibility of wage increases is one of the elements to be considered by the Contractor in determining the bid, and will not under any circumstances be considered as the basis of a claim against the State on the contract.

**7-1.01A(2)(a) Travel and Subsistence Payments.** Attention is directed to the requirements in Section 1773.8 of the Labor Code. The Contractor shall make travel and subsistence payments to each workman, needed to execute the work, in conformance with the requirements in Labor Code Section 1773.8.

**7-1.01A(3) Payroll Records.** Attention is directed to the requirements in Labor Code Section 1776, a portion of which is quoted below. Regulations implementing Labor Code Section 1776 are located in Sections 16016 through 16019 and Sections 16207.10 through 16207.19 of Title 8, California Code of Regulations.

(a) Each contractor and subcontractor shall keep accurate payroll records, 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 him or her in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

(1) The information contained in the payroll record is true and correct.

(2) The employer has complied with the requirements of Sections 1771, 1811, and 1815 for any work performed by his or her employees on the public works project.

(b) The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the contractor on the following basis:

(1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.

(2) A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the contract, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations.

(3) A certified copy of all payroll records enumerated in subdivision (a) shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through either the body awarding the contract, the Division of Apprenticeship Standards, or the

Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the 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 the contractor.

(c) The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the division.

(d) A contractor or subcontractor shall file a certified copy of the records enumerated in subdivision (a) with the entity that requested the records within 10 days after receipt of a written request.

(e) Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the awarding body, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement shall be marked or obliterated in a manner so as to prevent disclosure of an individual's name, address and social security number. The name and address of the contractor awarded the contract or the subcontractor performing the contract shall not be marked or obliterated.

(f) The contractor shall inform the body awarding the contract of the location of the records enumerated under subdivision (a), including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.

(g) The contractor or subcontractor shall have 10 days in which to comply subsequent to receipt of a written notice requesting the records enumerated in subdivision (a). In the event that the contractor or subcontractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars (\$25) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. A contractor is not subject to a penalty assessment pursuant to this section due to the failure of a subcontractor to comply with this section.

The penalties specified in subdivision (g) of Labor Code Section 1776 for noncompliance with the requirements in Section 1776 may be deducted from any moneys due or which may become due to the Contractor.

A copy of all payrolls shall be submitted weekly to the Engineer. Payrolls shall contain the full name, address and social security number of each employee, the employee's correct classification, rate of pay, daily and weekly number of hours worked, itemized deductions made and actual wages paid. They shall also indicate apprentices and ratio of apprentices to journeymen. The employee's address and social security number need only appear on the first payroll on which that name appears. The payroll shall be accompanied by a "Statement of

Compliance" signed by the employer or the employer's agent indicating that the payrolls are correct and complete and that the wage rates contained therein are not less than those required by the contract. The "Statement of Compliance" shall be on forms furnished by the Department or on any form with identical wording. The Contractor shall be responsible for the submission of copies of payrolls of all subcontractors.

If by the 15th of the month, the Contractor has not submitted satisfactory payrolls for all work performed during the monthly period ending on or before the first of that month, the Department will retain an amount equal to 10 percent of the estimated value of the work performed (exclusive of Mobilization) during the month from the next monthly estimate, except that this retention shall not exceed \$10,000 nor be less than \$1,000. Retentions for failure to submit satisfactory payrolls shall be additional to all other retentions provided for in the contract. The retention for failure to submit payrolls for any monthly period will be released for payment on the monthly estimate for partial payments next following the date that all the satisfactory payrolls for which the retention was made are submitted.

The Contractor and each subcontractor shall preserve their payroll records for a period of 3 years from the date of completion of the contract.

**7-1.01A(4) Labor Nondiscrimination.** Attention is directed to Section 1735 of the Labor Code, which reads as follows:

"No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons, except as provided in Section 12940 of the Government Code, and every contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter."

Attention is directed to the following "Nondiscrimination Clause" that is required by Chapter 5 of Division 4 of Title 2, California Code of Regulations.

**“NONDISCRIMINATION CLAUSE**

1. During the performance of this contract, contractor and its subcontractors shall not unlawfully discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, medical condition, marital status, age (over 40) or sex. Contractors and subcontractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination. Contractors and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code, Section 12990 et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12990, set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this contract by reference and made a part hereof as if set forth in full.

Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

2. This Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

**STANDARD CALIFORNIA NONDISCRIMINATION CONSTRUCTION CONTRACT SPECIFICATIONS (GOV. CODE, SECTION 12990).**

These specifications are applicable to all state contractors and subcontractors having a construction contract or subcontract of \$5,000, or more.

1. As used in the specifications:

a. "Administrator" means Administrator, Office of Compliance Programs, California Department of Fair Employment and Housing, or any person to whom the Administrator delegates authority;

b. "Minority" includes:

(i) Black (all persons having primary origins in any of the black racial groups of Africa, but not of Hispanic origin);

(ii) Hispanic (all persons of primary culture or origin in Mexico, Puerto Rico, Cuba, Central or South America or other Spanish derived culture or origin regardless of race);

(iii) Asian / Pacific Islander (all persons having primary origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent or the Pacific Islands); and

(iv) American Indian / Alaskan Native (all persons having primary origins in any of the original peoples of North America and who maintain culture identification through tribal affiliation or community recognition).

2. Whenever the contractor or any subcontractor subcontracts a portion of the work, it shall physically include in each subcontract of \$5,000 or more the nondiscrimination clause in this contract directly or through incorporation by reference. Any subcontract for work involving a construction trade shall also include the Standard California Construction Contract Specifications, either directly or through incorporation by reference.

3. The contractor shall implement the specific nondiscrimination standards provided in paragraph 6(a) through (e) of these specifications.

4. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the

contractor's obligations under these specifications, Government Code, Section 12990, or the regulations promulgated pursuant thereto.

5. In order for the nonworking training hours of apprentices and trainees to be counted, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor or the California Department of Industrial Relations.

6. The contractor shall take specific actions to implement its nondiscrimination program. The evaluation of the contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The contractor must be able to demonstrate fully its efforts under Steps a. through e. below:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and at all facilities at which the contractor's employees are assigned to work. The contractor, where possible, will assign two or more women to each construction project. The contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the contractor's obligations to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Provide written notification within seven days to the director of DFEH when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

c. Disseminate the Contractor's equal employment opportunity policy by providing notice of the policy to unions and training, recruitment and outreach programs and requesting their cooperation in assisting the Contractor to meet its obligations; and by posting the company policy on bulletin boards accessible to all employees at each location where construction work is performed.

d. Ensure all personnel making management and employment decisions regarding hiring, assignment, layoff, termination, conditions of work, training, rates of pay or other employment decisions, including all supervisory personnel, superintendents, general foremen, on-site foremen, etc., are aware of the Contractor's equal employment opportunity policy and obligations, and discharge their responsibilities accordingly.

e. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by



continually monitoring all personnel and employment related activities to ensure that the equal employment opportunity policy and the Contractor's obligations under these specifications are being carried out.

7. Contractors are encouraged to participate in voluntary associations which assist in fulfilling their equal employment opportunity obligations. The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's.

8. The Contractor is required to provide equal employment opportunity for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Fair Employment and Housing Act (Gov. Code, Section 12990 et seq.) if a particular group is employed in a substantially disparate manner.

9. Establishment and implementation of a bona fide affirmative action plan pursuant to Section 8104 (b) of this Chapter shall create a rebuttal presumption that a contractor is in compliance with the requirements of Section 12990 of the Government Code and its implementing regulations.

10. The Contractor shall not use the nondiscrimination standards to discriminate against any person because of race, color, religion, sex, national origin, ancestry, physical handicap, medical condition, marital status or age over 40.

11. The Contractor shall not enter into any subcontract with any person or firm decertified from state contracts pursuant to Government Code Section 12990.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and the nondiscrimination clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Government Code Section 12990 and its implementing regulations by the awarding agency. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Government Code Section 12990.

13. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company equal employment opportunity policy is being carried out, to submit reports relating to the provisions hereof as may be required by OCP and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification

number when assigned, social security number, race, sex, status, (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in any easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records. NOTE: Authority cited: Sections 12935(a) and 12990(d), Government Code. References: Section 12990, Government Code.”

**7-1.01A(5) Apprentices.** Attention is directed to Sections 1777.5, 1777.6 and 1777.7 of the California Labor Code and Title 8, California Code of Regulations Section 200 et seq. To ensure compliance and complete understanding of the law regarding apprentices, and specifically the required ratio thereunder, each contractor or subcontractor should, where some question exists, contact the Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, CA 94102, or one of its branch offices prior to commencement of work on the public works contract. Responsibility for compliance with this section lies with the Contractor.

It is State policy to encourage the employment and training of apprentices on public works contracts as may be permitted under local apprenticeship standards.

**7-1.01A(6) Workers' Compensation.** Pursuant to the requirements in Section 1860 of the Labor Code, the Contractor will be required to secure the payment of workers' compensation to the Contractor's employees in conformance with the requirements in Section 3700 of the Labor Code.

Prior to the commencement of work, the Contractor shall sign and file with the Engineer a certification in the following form:

"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 contract."

This certification is included in the contract, and signature and return of the contract shall constitute signing and filing of the certificate.

**7-1.01A(7) Suits to Recover Penalties and Forfeitures.** Attention is directed to Sections 1730 to 1733, inclusive, of the Labor Code concerning suits to recover amounts withheld from payment for failure to comply with requirements of the Labor Code or contract provisions based on those laws.

Those sections provide that a suit on the contract for alleged breach thereof in not making the payment is the exclusive remedy of the Contractor or the Contractor's assignees with reference to amounts withheld for those penalties or forfeitures; and that the suit must be commenced and actual notice thereof received by the awarding authority prior to 90 days after completion of the contract and the formal acceptance of the job.

Submission of a claim under Section 50-16, "Claims for Adjustment and Disputes," for the amounts withheld from payment for those penalties and forfeitures is not a prerequisite for those suits, and these claims will not be considered.

**7-1.01B Fair Labor Standards Act.** The attention of bidders is invited to the fact that the State of California, Department of Transportation, has been advised by the Wage and Hour Division, U.S. Department of Labor, that contractors engaged in highway construction work are required to meet the provisions of the Fair Labor Standards Act of 1938 and as amended (52 Stat. 1060).

**7-1.01C Contractor's Licensing Laws.** Attention is directed to the provisions of Chapter 9 of Division 3 of the Business and Professions Code concerning the licensing of contractors.

All bidders and contractors shall be licensed in accordance with the laws of this State and any bidder or contractor not so licensed is subject to the penalties imposed by those laws.

Attention is also directed to the requirements in Public Contract Code Section 10164 and Section 20103. In all projects where Federal funds are involved, the Contractor shall be properly licensed at the time the contract is awarded.

**7-1.01D Vehicle Code.** Pursuant to the authority contained in Vehicle Code Section 591, the Department has determined that within those areas that are within the limits of the project and are open to public traffic, the Contractor shall comply with all the requirements set forth in Divisions 11, 12, 13, 14 and 15 of the Vehicle Code.

Attention is directed to the statement in Vehicle Code Section 591 that this section shall not relieve the Contractor or any person from the duty of exercising due care. The Contractor shall take all necessary precautions for safe operation of the Contractor's equipment and the protection of the public from injury and damage from the Contractor's equipment.

**7-1.01E Trench Safety.** Attention is directed to the requirements in Section 6705 of the Labor Code concerning trench excavation safety plans.

**7-1.01F Air Pollution Control.** The Contractor shall comply with all air pollution control rules, regulations, ordinances and statutes which apply to any work performed pursuant to the contract, including any air pollution control rules, regulations, ordinances and statutes, specified in Section 11017 of the Government Code.

Unless otherwise provided in the special provisions, material to be disposed of shall not be burned, either inside or outside the highway right of way.

**7-1.01G Water Pollution.** The Contractor shall exercise every reasonable precaution to protect streams, lakes, reservoirs, bays, and coastal waters from pollution with fuels, oils, bitumens, calcium chloride and other harmful materials and shall conduct and schedule operations so as to avoid or minimize muddying and silting of streams, lakes, reservoirs, bays and coastal waters. Care shall be exercised to preserve roadside vegetation beyond the limits of construction.

Water pollution control work is intended to provide prevention, control and abatement of water pollution to streams, waterways and other bodies of water, and shall consist of constructing those facilities which may be shown on the plans, specified herein or in the special provisions, or directed by the Engineer.

In order to provide effective and continuous control of water pollution it may be necessary for the Contractor to perform the contract work in small or multiple units, on an out of phase schedule, and with modified construction procedures. The Contractor shall provide temporary water pollution control measures, including but not limited to, dikes, basins, ditches, and applying straw and seed, which become necessary as a result of the Contractor's operations. The Contractor shall coordinate water pollution control work with all other work done on the contract.

Before starting any work on the project, the Contractor shall submit, for acceptance by the Engineer, a program to control water pollution effectively during construction of the project. The program shall show the schedule for the erosion control work included in the contract and for all water pollution control measures which the Contractor proposes to take in connection with construction of the project to minimize the effects of the operations upon adjacent streams and other bodies of water. The Contractor shall not perform any clearing and grubbing or earthwork on the project, other than that specifically authorized in writing by the Engineer, until the program has been accepted.

If the measures being taken by the Contractor are inadequate to control water pollution effectively, the Engineer may direct the Contractor to revise the operations and the water pollution control program. The directions will be in writing and will specify the items of work for which the Contractor's water pollution control measures are inadequate. No further work shall be performed on those items until the water pollution control measures are adequate and, if also required, a revised water pollution control program has been accepted.

The Engineer will notify the Contractor of the acceptance or rejection of any submitted or revised water pollution control program in not more than 5 working days.

The State will not be liable to the Contractor for failure to accept all or any portion of an originally submitted or revised water pollution control program, nor for any delays to the work due to the Contractor's failure to submit an acceptable water pollution control program.

The Contractor may request the Engineer to waive the requirement for submission of a written program for control of water pollution when the nature of the Contractor's operation is such that erosion is not likely to occur. Waiver of this requirement will not relieve the Contractor from responsibility for compliance with the other provisions of this section. Waiver of the requirement for a written program for control of water pollution will not preclude requiring submittal of a written program at a later time if the Engineer deems it necessary because of the effect of the Contractor's operations.

Unless otherwise approved by the Engineer in writing, the Contractor shall not expose a total area of erodible earth material, which may cause water pollution, exceeding 750,000 square feet for each separate location, operation or spread of equipment before either temporary or permanent erosion control measures are accomplished.

Where erosion which will cause water pollution is probable due to the nature of the material or the season of the year, the Contractor's operations shall be so scheduled that permanent erosion control features will be installed concurrently with or immediately following grading operations.

Nothing in the terms of the contract nor in the provisions in this Section 7-1.01G shall relieve the Contractor of the responsibility for compliance with Sections 5650 and 12015 of the Fish and Game Code, or other applicable statutes relating to prevention or abatement of water pollution.

When borrow material is obtained from other than commercially operated sources, erosion of the borrow site during and after completion of the work shall not result in water pollution. The material source shall be finished, where practicable, so that water will not collect or stand therein.

The requirements of this section shall apply to all work performed under the contract and to all non-commercially operated borrow or disposal sites used for the project.

The Contractor shall also conform to the following provisions:

1. Where working areas encroach on live streams, barriers adequate to prevent the flow of muddy water into streams shall be constructed and maintained between working areas and streams, and during construction of the barriers, muddying of streams shall be held to a minimum.
2. Removal of material from beneath a flowing stream shall not be commenced until adequate means, such as a bypass channel, are provided to carry the stream free from mud or silt around the removal operations.
3. Should the Contractor's operations require transportation of materials across live streams, the operations shall be conducted without muddying the stream. Mechanized equipment shall not be operated in the stream channels of the live streams except as may be necessary to construct crossings or barriers and fills at channel changes.
4. Water containing mud or silt from aggregate washing or other operations shall be treated by filtration, or retention in a settling pond, or ponds, adequate to prevent muddy water from entering live streams.
5. Oily or greasy substances originating from the Contractor's operations shall not be allowed to enter or be placed where they will later enter a live stream.
6. Portland cement or fresh portland cement concrete shall not be allowed to enter flowing water of streams.
7. When operations are completed, the flow of streams shall be returned as nearly as possible to a meandering thread without creating possible future bank erosion, and settling pond sites shall be graded so they will drain and will blend in with the surrounding terrain.
8. Material derived from roadway work shall not be deposited in a live stream channel where it could be washed away by high stream flows.

9. Where there is possible migration of anadromous fish in streams affected by construction on the project, the Contractor shall conduct work operations so as to allow free passage of the migratory fish.

Compliance with the provisions in this section shall in no way relieve the Contractor from the responsibility to comply with the other provisions of the contract, in particular the responsibility for damage and for preservation of property.

Full compensation for conforming to the provisions in this section shall be considered as included in the prices paid for the various items of work and no additional compensation will be allowed therefor.

**7-1.01H Use of Pesticides.** The Contractor shall comply with all rules and regulations of the Department of Food and Agriculture, the Department of Health, the Department of Industrial Relations and all other agencies which govern the use of pesticides required in the performance of the work on the contract.

Pesticides shall include but shall not be limited to herbicides, insecticides, fungicides, rodenticides, germicides, nematocides, bactericides, inhibitors, fumigants, defoliant, desiccants, soil sterilants and repellents.

Any substance or mixture of substances intended for preventing, repelling, mitigating, or destroying weeds, insects, diseases, rodents, or nematodes and any substance or mixture of substances intended for use as a plant regulator, defoliant or desiccant shall be considered a pesticide.

**7-1.01I Sound Control Requirements.** The Contractor shall comply with all local sound control and noise level rules, regulations and ordinances which apply to any work performed pursuant to the contract.

Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler.

**7-1.01J Assignment of Antitrust Actions.** The Contractor's attention is directed to the following requirements in Public Contract Code 7103.5 and Government Code Sections 4553 and 4554, which shall be applicable to the Contractor and the Contractor's subcontractors:

"In entering into a public works contract or a 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 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment by the parties.

"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.

"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."

**7-1.02 Load limitations.** Unless expressly permitted in the special provisions, construction equipment or vehicles of any kind which, laden or unladen, exceed the maximum weight limitations set forth in Division 15 of the Vehicle Code, shall not be operated over completed or existing treated bases, surfacing, pavement or structures in any areas within the limits of the project, whether or not the area is subject to weight limitations under Section 7-1.01D, "Vehicle Code," except as hereinafter provided in this Section 7-1.02.

After application of the curing seal, no traffic or Contractor's equipment will be permitted on cement treated base or lean concrete base for a period of 72 hours. After 72 hours, traffic and equipment operated on the base shall be limited to that used in paving operations and placing additional layers of cement treated base. No traffic or Contractor's equipment will be permitted on treated permeable base except for that equipment required to place the permeable base and the subsequent layer of pavement. Trucks used to haul treated base, Portland cement concrete, or asphalt concrete shall enter onto the base to dump at the nearest practical entry point ahead of spreading equipment. Empty haul trucks shall exit from the base at the nearest practical exit point. Entry and exit points shall not be more than 1,000 feet ahead of spreading equipment except in locations where specifications prohibit operation of trucks outside the area occupied by the base or where steep slopes or other conditions preclude safe operation of hauling equipment. In those locations, entry and exit points shall be established at the nearest point ahead of spreading equipment permitted by specifications and allowing safe operation of hauling equipment. Damage to curing seal or base shall be repaired promptly by the Contractor, at the Contractor's expense, as directed by the Engineer.

Within the limits of the project and subject to the control of the Engineer, and provided that the Contractor, at the Contractor's expense, shall provide such protective measures as are deemed necessary by the Engineer and shall repair any damage caused by the operations, the Contractor will be permitted to:

- (1) Make transverse crossings of those portions of an existing public road or street that are within the highway right of way, with construction equipment which exceeds the size or weight limitations set forth in Division 15 of the Vehicle Code.
- (2) Make transverse crossings of treated bases, surfacing or pavement which are under construction or which have been completed, with construction equipment

which exceeds the size or weight limitations set forth in Division 15 of the Vehicle Code.

(3) Cross bridge structures that are not open to public traffic and which are designed for HS20-44 Live Loading (culverts and pipes excluded), with construction equipment which exceeds the size or weight limitations set forth in Division 15 of the Vehicle Code, but not exceeding the load limitations hereinafter specified, provided that the Contractor furnishes to the Engineer the dimensions and maximum axle loadings of equipment proposed for use on bridge structures:

(a) The maximum loading on bridge structures due to pneumatic-tired truck and trailer combinations shall not exceed (1) 28,000 pounds for single axles, (2) 48,000 pounds for tandem axles, nor (3) 60,000 pounds total gross load for single vehicles or 110,000 pounds total gross load for truck and trailer or semi-trailer combinations.

(b) The loading on bridge structures due to 2 and 3 axle pneumatic-tired earthmovers shall not exceed that shown in the following table.

Allowable Construction Loading On Bridges For 2 and 3 Axle Earthmovers	
Spacing of Bridge Girders (center to center in feet)	Maximum Axle Loading (in pounds)
4	28,000
5	29,000
6	30,000
7	32,000
8	34,000
9	37,000
10 and over	40,000

Minimum axle spacing:

For 3-axle earthmovers

Axles 1 to 2 = 8 feet

Axles 2 to 3 = 20 feet

For 2-axle earthmovers

Axles 1 to 2 = 20 feet



(4) Move equipment within the limits of the project over completed or existing base, surfacing, pavement and structures, whether or not open to the public, in accordance with the limitations and conditions in the "Permit Policy" of the Department of Transportation.

Within the limits of the project and subject to the condition that the Contractor shall repair, at the Contractor's expense, any damage caused thereby, the Contractor will be permitted to cross culverts and pipes with construction equipment which exceeds the size or weight limitations set forth in Division 15 of the Vehicle Code in accordance with the conditions set forth on the plans. If the conditions are not set forth on the plans, the provisions in the first paragraph in this Section 7-1.02 will apply.

Should the Contractor desire to increase the load carrying capacity of a structure or structures which are to be constructed as a part of the contract, in order to facilitate the Contractor's own operations, the Contractor may request the Engineer to consider redesigning the structure or structures. Proposals by the Contractor to increase the load carrying capacity of structures above 130,000 pounds per single axle or pair of axles less than 8 feet apart, or above 330,000 pounds total gross vehicle weight, will not be approved. The request shall include a description of the structure or structures involved and a detailed description of the overloads to be carried, the date the revised plans would be required, and a statement that the Contractor agrees to pay all costs involved in the strengthening of the structure or structures, including the cost of revised plans, and further that the Contractor agrees that no extension of time will be allowed by reason of any delay to the work which may be due to the alteration of the structure or structures. If the Engineer determines that strengthening the structure or structures will be permitted, the Engineer will inform the Contractor of the estimated cost of the alterations, including engineering, and the date that revised plans could be furnished. If the cost and date are satisfactory to the Contractor, the Engineer will prepare a change order providing for the agreed upon alterations.

**7-1.03 PAYMENT OF TAXES.** The contract prices paid for the work shall include full compensation for all taxes which the Contractor is required to pay, whether imposed by Federal, State or local government, including, without being limited to, Federal excise tax. No tax exemption certificate nor any document designed to exempt the Contractor from payment of any tax will be furnished to the Contractor by the Department, as to any tax on labor, services, materials, transportation, or any other items furnished pursuant to the contract.

**7-1.04 PERMITS AND LICENSES.** The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work.

The Environmental Quality Act (Public Resources Code, Sections 21000 to 21176, inclusive) may be applicable to permits, licenses and other authorizations which the Contractor must obtain from local agencies in connection with performing the work of the contract. The Contractor shall comply with the provisions of those statutes in obtaining the permits, licenses and other authorizations and they shall be obtained in sufficient time to prevent delays to the work.

In the event that the Department has obtained permits, licenses or other authorizations, applicable to the work, in conformance with the requirements in the Environmental Quality

Act, the Contractor shall comply with the provisions of those permits, licenses and other authorizations.

**7-1.05 PATENTS.** The Contractor shall assume all costs arising from the use of patented materials, equipment, devices or processes used on or incorporated in the work, and agrees to indemnify and save harmless the State of California, the Director, the Engineer, and their duly authorized representatives, from all suits at law, or actions of every nature for, or on account of the use of any patented materials, equipment, devices or processes.

**7-1.06 SAFETY AND HEALTH PROVISIONS.** The Contractor shall conform to all applicable occupational safety and health standards, rules, regulations and orders established by the State of California. Working areas utilized by the Contractor to perform work during the hours of darkness, shall be lighted to conform to the minimum illumination intensities established by California Division of Occupational Safety and Health Construction Safety Orders.

All lighting fixtures shall be mounted and directed in a manner precluding glare to approaching traffic.

Full compensation for conforming to the provisions in this section shall be considered as included in the contract prices paid for the various items of work involved and no separate payment will be made therefor.

**7-1.07 (BLANK)**

**7-1.08 PUBLIC CONVENIENCE.** This Section 7-1.08 defines the Contractor's responsibility with regard to convenience of the public and public traffic in connection with the Contractor's operations.

Attention is directed to Section 7-1.09, "Public Safety," for provisions relating to the Contractor's responsibility for the safety of the public. The provisions in Section 7-1.09 are in addition to the provisions in this Section 7-1.08, and the Contractor will not be relieved of the responsibilities as set forth in Section 7-1.09 by reason of conformance with any of the provisions in this Section 7-1.08.

The Contractor shall so conduct operations as to offer the least possible obstruction and inconvenience to the public and shall have under construction no greater length or amount of work than can be prosecuted properly with due regard to the rights of the public.

Unless otherwise provided in the special provisions, all public traffic shall be permitted to pass through the work with as little inconvenience and delay as possible. Where possible, public traffic shall be routed on new or existing paved surfaces.

Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately by the Contractor at the Contractor's expense.

Existing traffic signals and highway lighting shall be kept in operation for the benefit of the traveling public during progress of the work, and other forces will continue routine maintenance of existing systems.

Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners.

Convenient access to driveways, houses, and buildings along the line of the work shall be maintained and temporary approaches to crossings or intersecting highways shall be provided and kept in good condition. When the abutting property owner's access across the right of way line is to be eliminated, or to be replaced under the contract by other access facilities, the existing access shall not be closed until the replacement access facilities are usable.

Roadway excavation and the construction of embankments shall be conducted in such a manner as to provide a reasonably smooth and even surface satisfactory for use by public traffic at all times; sufficient fill at culverts and bridges to permit traffic to cross shall be placed in advance of other grading operations; and if ordered by the Engineer roadway cuts shall be excavated in lifts and embankments constructed part width at a time, construction being alternated from one side to the other and traffic routed over the side opposite the one under construction. Culvert installation or culvert construction shall be conducted on but one-half the width of the traveled way at a time, and that portion of the traveled way being used by public traffic shall be kept open and unobstructed until the opposite side of the traveled way is ready for use by traffic.

Upon completion of rough grading at the grading plane, or placing any subsequent layer thereon, the surface of the roadbed shall be brought to a smooth, even condition free of humps and depressions, satisfactory for the use of public traffic.

After the surface of the roadbed has been brought to a smooth and even condition for the passage of public traffic as above provided, any work ordered by the Engineer for the accommodation of public traffic prior to commencing subgrade operations will be paid for as extra work as provided in the provision set forth in this Contract. After subgrade preparation for a specified layer of material has been completed, the Contractor shall, at the Contractor's expense, repair any damage to the roadbed or completed subgrade, including damage caused by the Contractor's operations or use by public traffic.

While subgrade and paving operations are underway, public traffic shall be permitted to use the shoulders and, if half-width paving methods are used, shall also be permitted to use the side of the roadbed opposite the one under construction. When sufficient width is available, a passageway wide enough to accommodate at least 2 lanes of traffic shall be kept open at locations where subgrade and paving operations are in active progress. Any shaping of shoulders or reshaping of subgrade necessary for the accommodation of public traffic thereon during subgrade preparation and paving operations will be paid for as extra work as provided in the provisions set forth in this Contract.

When ordered by the Engineer, the Contractor shall furnish a pilot car and driver and flaggers for the purpose of expediting the passage of public traffic through the work under one-way controls, and the cost thereof will be paid for as extra work as provided in the provisions set forth in this Contract. At locations where traffic is being routed through construction under one-way controls and when ordered by the Engineer, the movement of the Contractor's equipment from one portion of the work to another shall be governed in accordance with the one-way controls.

Water or dust palliative shall be applied if ordered by the Engineer for the alleviation or prevention of dust nuisance as provided in the provisions set forth in this Contract.

In order to expedite the passage of public traffic through or around the work and where ordered by the Engineer, the Contractor shall install signs, lights, flares, temporary railing (Type K), barricades and other facilities for the sole convenience and direction of public traffic. Also where directed by the Engineer, the Contractor shall furnish competent flaggers whose sole duties shall consist of directing the movement of public traffic through or around the work. The cost of furnishing and installing the signs, lights, flares, temporary railing (Type K), barricades, and other facilities, not to be paid for as separate contract items, will be paid for as extra work as provided in the provisions set forth in this Contract.

The cost of furnishing flaggers for the sole convenience and direction of public traffic will be paid for as provided in the provisions set forth in this Contract.

The Contractor will be required to pay the cost of replacing or repairing all facilities installed under extra work for the convenience or direction or warning of public traffic that are lost while in the Contractor's custody, or are damaged by reason of the Contractor's operations to such an extent as to require replacement or repair, and deductions from any moneys due or to become due the Contractor will be made to cover the cost.

Whenever a section of surfacing, pavement or the deck of a structure has been completed, the Contractor shall open it to use by public traffic if the Engineer so orders or may open it to use by public traffic if the Engineer so consents. In either case the Contractor will not be allowed any compensation due to any delay, hindrance or inconvenience to the Contractor's operations caused by public traffic, but will thereupon be relieved of responsibility for damage to completed permanent facilities caused by public traffic, within the limits of that use. The Contractor will not be relieved of any other responsibility under the contract nor will the Contractor be relieved of cleanup and finishing operations.

Except as otherwise provided in this Section 7-1.08 or in the special provisions, full compensation for conforming to the provisions in this Section 7-1.08 shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefor.

**7-1.09 PUBLIC SAFETY.** It is the Contractor's responsibility to provide for the safety of traffic and the public during construction.

Attention is directed to Section 7-1.12, "Idemnification and Insurance."

Attention is directed to Section 7-1.08, "Public Convenience," for provisions relating to the Contractor's responsibility for providing for the convenience of the public in connection with the Contractor's operations.

Whenever the Contractor's operations create a condition hazardous to traffic or to the public, the Contractor shall, at the Contractor's expense and without cost to the State, furnish, erect and maintain those fences, temporary railing (Type K), barricades, lights, signs and other devices and take such other protective measures that are necessary to prevent accidents or damage or injury to the public.

The Contractor shall also furnish such flaggers as are necessary to give adequate warning to traffic or to the public of any dangerous conditions to be encountered, and payment therefor will be made as provided in the provisions set forth in this Contract.

Signs, lights, flags, and other warning and safety devices and their use shall conform to the requirements set forth in Part 6 of the MUTCD and of the MUTCD California Supplement. Signs or other protective devices furnished and erected by the Contractor, at the Contractor's expense, as above provided, shall not obscure the visibility of, nor conflict in intent, meaning and function of either existing signs, lights and traffic control devices or any construction area signs and traffic control devices for which furnishing of, or payment for, is provided elsewhere in the specifications. Signs furnished and erected by the Contractor, at the Contractor's expense, shall be approved by the Engineer as to size, wording and location.

The installation of general roadway illumination shall not relieve the Contractor of the responsibility for furnishing and maintaining any of the protective facilities herein before specified.

Construction equipment shall enter and leave the highway via existing ramps and crossovers and shall move in the direction of public traffic. All movements of workmen and construction equipment on or across lanes open to public traffic shall be performed in a manner that will not endanger public traffic.

The Contractor's trucks or other mobile equipment which leave a freeway lane, that is open to public traffic, to enter the construction area, shall slow down gradually in advance of the location of the turnoff to give following public traffic an opportunity to slow down.

When leaving a work area and entering a roadway carrying public traffic, the Contractor's equipment, whether empty or loaded, shall in all cases yield to public traffic.

No material or equipment shall be stored where it will interfere with the free and safe passage of public traffic, and at the end of each day's work and at other times when construction operations are suspended for any reason, the Contractor shall remove all equipment and other obstructions from that portion of the roadway open for use by public traffic.

Temporary facilities which the Contractor uses to perform the work shall not be installed or placed where they will interfere with the free and safe passage of public traffic.

Temporary facilities which could be a hazard to public safety if improperly designed shall comply with design requirements specified in the contract for those facilities or, if none are specified, with standard design criteria or codes appropriate for the facility involved. Working drawings and design calculations for the temporary facilities shall be prepared and signed by an engineer who is registered as a Civil Engineer in the State of California and shall be submitted to the Engineer for approval pursuant to the provisions set forth in this Contract. The submittals shall designate thereon the standard design criteria or codes used. Installation of the temporary facilities shall not start until the Engineer has reviewed and approved the drawings.

Should the Contractor appear to be neglectful or negligent in furnishing warning devices and taking protective measures as above provided, the Engineer may direct attention to the existence of a hazard and the necessary warning devices shall be furnished and installed and protective measures taken by the Contractor at the Contractor's expense. Should the Engineer point out the inadequacy of warning devices and protective measures, that action on the part of the Engineer shall not relieve the Contractor from responsibility for public safety or abrogate the obligation to furnish and pay for these devices and measures.

Provision for the payment for signs, lights, flares, temporary railing (Type K), barricades, and other facilities by extra work as provided in Section 7-1.08, "Public Convenience," or by contract item as provided in the provisions set forth in this Contract shall in nowise relieve the Contractor from the responsibility as provided in this Section 7-1.09.

Except as otherwise provided in this Section 7-1.09 or in the special provisions, full compensation for conforming to all of the provisions in this Section 7-1.09 shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore.

**7-1.10 USE OF EXPLOSIVES.** When explosives are used, the Contractor shall exercise the utmost care not to endanger life or property.

In advance of doing any blasting work within 200 feet of any railroad's tracks or structures, the Contractor shall notify the railroad of the location, date, time and approximate duration of the blasting operations.

**7-1.11 PRESERVATION OF PROPERTY.** Due care shall be exercised to avoid injury to existing highway improvements or facilities, utility facilities, adjacent property, and roadside trees, shrubs and other plants that are not to be removed.

Roadside trees, shrubs and other plants that are not to be removed, and pole lines, fences, signs, markers and monuments, buildings and structures, conduits, pipelines under or above ground, sewer and water lines, all highway facilities and any other improvements or facilities within or adjacent to the highway shall be protected from injury or damage, and if ordered by the Engineer, the Contractor shall provide and install suitable safeguards, approved by the Engineer, to protect the objects from injury or damage. If the objects are injured or damaged by reason of the Contractor's operations, the objects shall be replaced or restored at the Contractor's expense. The facilities shall be replaced or restored to a condition as good as when the Contractor entered upon the work, or as good as required by the specifications accompanying the contract, if any of the objects are a part of the work being performed under the contract. The Engineer may make or cause to be made those temporary repairs that are necessary to restore to service any damaged highway facility. The cost of the repairs shall be borne by the Contractor and may be deducted from any moneys due or to become due to the Contractor under the contract.

It shall be the Contractor's responsibility, pursuant to the provisions set forth in this Contract, to ascertain the location of those underground improvements or facilities which may be subject to damage by reason of the Contractor's operations.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in protecting or repairing property as specified in this Section 7-1.11, shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore.

**7-2.01** Contractor recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with Section 5200) of

Part 5 of Division 9 of the Family Code of the State of California. By entering into the contract Contractor acknowledges that to the best of its knowledge Contractor is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the Employment Development Department.

**SP 70-25 California State Department of Industrial Relations (DIR) requirements:**

No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

**SP 70-26 Required workplace posters.** Contractor shall provide and post on the project site any and all notification posters for public works projects, as required by the State of California and Federal Government. All penalties or fines shall be the responsibility of the Contractor.

**SP 90-12 Security for construction warranty.** The Contractor shall upon final acceptance of the work, furnish a bond to the Owner in a penal sum equal to five percent (5%) of the amount of the Contract price, executed by a surety company authorized by the Department of Insurance of the State of California to execute such a bond in this State, and which bond shall be approved as to form and manner of execution by the Owner's attorney. This bond shall be conditioned for the faithful performance by the said Contractor of the conditions and stipulations of the subsection titled ACCEPTANCE AND FINAL PAYMENT of this section, thereof relating to maintenance and repair, for a period of one (1) year from the date of the final acceptance of the work. In default of the filing of such bond, a sum of money equal to said five percent (5%) may be retained out of any monies due to the Contractor and be held for one (1) year, or until the bond above described is filed.

For Contractors who have elected to set up an escrow account, they may elect to maintain the escrow account for a period of one (1) year from the date of final acceptance of the work in lieu of providing a bond for security of guarantee as described above.

## MONTHLY PAYMENT REPORT

Name of Contractor's Firm: \_\_\_\_\_

Project Name/Location: \_\_\_\_\_

FAA AIP Project No.: \_\_\_\_\_

Subcontractor/DBE Supplier Name*	DBE Y/N	Subcontractor Contract Amount	Pay App #	Payment Period Date (From-To)	Amount Invoiced To Date	Amount Paid To Date	Current Retainage Amount	Total Retainage	Previous Payment Amount	Previous Payment Date	Total Payment Amount to Date

**\*ALL Subcontractors Must Be Listed – ONLY DBE Suppliers Must Be Listed**\_\_\_\_\_  
Signature of Contractor's Representative\_\_\_\_\_  
Print Contractor's Representative\_\_\_\_\_  
Date



**SUBCONTRACTOR'S PROMPT PAYMENT CERTIFICATION**

**NOTE:** Each Contractor shall provide a copy of this form to each of their Subcontractors (DBE and non-DBE) that are working on or has worked on this project. This certification applies to all tier Subcontractors. A completed copy of this form shall be submitted to the Sponsor's representative, the Prime Contractor and the Contractor you are working for at least 7 days prior to an application for payment. Any Subcontractor failing to submit a copy of this form shall be cause for the Sponsor's representative to delay the payment application. Reference Section 70-21, Item 12 for information on 49 CFR §26.29 with regard to Prompt Payment.

Should a Subcontractor indicate that they have not received payment for work they performed in which their Contractor has received payment, the Sponsor shall withhold the delinquent amount indicated unless the Contractor received written approval from the Sponsor of the Contractor's written request justifying withholding payment from the Subcontractor.

Project Title: \_\_\_\_\_

Airport Name: \_\_\_\_\_

AIP No.: \_\_\_\_\_

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

\_\_\_\_\_ Contact Phone No.: \_\_\_\_\_

Contractor's Name you subcontract to: \_\_\_\_\_

1. Have you performed work on this project within the last 30 days? Yes \_\_\_ No \_\_\_

2. Has the work you performed within the last 30 days been completed and accepted by the RPR?  
Yes \_\_\_ No \_\_\_ Not sure \_\_\_

3. Have you been paid by the contractor you subcontracted with for the work you performed?  
Yes \_\_\_ No \_\_\_

4. Estimated value of work performed in which you did not receive payment: \$ \_\_\_\_\_

5. Have you completed all work that you are required to perform on this contract? Yes \_\_\_ No \_\_\_

Written Name of Subcontractor's Rep. \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## DISADVANTAGED BUSINESS ENTERPRISE DBE PARTICIPATION SUMMARY

(Submit one form for each DBE Firm.)

**Airport Name:** \_\_\_\_\_ **AIP No.** \_\_\_\_\_

**Project Name:** \_\_\_\_\_

**Contractor:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **Zip:** \_\_\_\_\_

**Contact Name:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**DBE Firm:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **Zip:** \_\_\_\_\_

**Contact Name:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

**Email:** \_\_\_\_\_

*Each DBE Firm shall submit evidence (such as a photocopy) of their certification status.*

**Classification:**

☐ Prime Contractor

☐ Supplier

☐ Manufacturer

☐ Broker

☐ Subcontractor

☐ Joint Venture

☐ Black American

☐ Asian-Pacific American

☐ Hispanic American

☐ Non-Minority Women

**Disadvantaged Group  
(check one):**

☐ Native American

☐ Subcontinent Asian American

☐ Other (Please specify): \_\_\_\_\_

**Summary of work performed:**

Description of work	NAICS	Amount Paid to DBE

**Contractor's Affirmation:**

The Contractor utilized the above-named DBE Firm for the work items described above.

**Initial Contract Amount:** \_\_\_\_\_ **Difference:** \_\_\_\_\_

Explanation of Difference: (Additional documentation may be requested)

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
**Contractor's Signature**

\_\_\_\_\_  
**Title**

\_\_\_\_\_  
**Date**

**DBE Firm's Affirmation:**

The above-named DBE Firm affirms that it has performed the work it was contracted to perform, as listed above and was paid in full as stated above.

\_\_\_\_\_  
**DBE Firm's Signature**

\_\_\_\_\_  
**Title**

\_\_\_\_\_  
**Date**

Special Provisions

SP-62

# Equal Employment Opportunity is THE LAW

## Private Employers, State and Local Governments, Educational Institutions, Employment Agencies and Labor Organizations

Applicants to and employees of most private employers, state and local governments, educational institutions, Employment agencies, and labor organizations are protected under Federal law from discrimination on the following bases.

### **RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN**

Title VII of the Civil Rights Act of 1964, as amended, protects applicants and employees from discrimination in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment, on the basis of race, color, religion, sex (including pregnancy), or national origin. Religious discrimination includes failing to reasonably accommodate an employee's religious practices where the accommodation does not impose undue hardship.

### **DISABILITIES**

Title I and Title V of the Americans with Disabilities Act of 1990, as amended, protect qualified individuals from discrimination on the basis of disability in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. Disability discrimination includes not making reasonable accommodation to the known physical or mental limitations of an otherwise qualified individual with a disability who's is an applicant or employee, barring undue hardship.

### **AGE**

The Age Discrimination in Employment Act of 1967, as amended, protects applicants and employees 40 years of age or older from discrimination based on age in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment.

### **SEX (WAGES)**

In addition to sex discrimination prohibited by Title VII of the Civil Rights Act, as amended, the Equal Pay Act of 1963, as amended, prohibits sex discrimination in payment of wages to women and men performing substantially equal work jobs that require equal skill, effort, and responsibility, under similar working conditions, in the same establishment.

### **GENETICS**

Title II of the Genetic Information Nondiscrimination Act of 2008 protects applicants and employees from discrimination based on genetic information in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. GINA also restricts employers' acquisition of genetic information and strictly limits disclosure of genetic information. Genetic information includes information about genetic tests of applicants, employees, or their family members; the manifestation of diseases or disorders in family members (family medical history); and requests for or receipt of genetic services by applicants, employees, or their family members.

### **RETALIATION**

All of these Federal laws prohibit covered entities from retaliating against a person who files a charge of discrimination, participates in a discrimination proceeding, or otherwise opposes an unlawful employment practice.

### **WHAT TO DO IF YOU BELIEVE DISCRIMINATION HAS OCCURRED**

There are strict time limits for filing charges of employment discrimination. To preserve the ability of EEOC to act on your behalf and to protect your right to file a private lawsuit, should you ultimately need to, you should contact EEOC promptly when discrimination is suspected:

The U.S. Equal Employment Opportunity Commission (EEOC), 1-800-669-4000 (toll-free) or 1-800-669-6820 (toll-free TTY number for individuals with hearing impairments). EEOC field office information is available at [www.eeoc.gov](http://www.eeoc.gov) or in most telephone directories in the U.S. Government or Federal Government section. Additional information about EEOC, including information about charge filing, is available at [www.eeoc.gov](http://www.eeoc.gov).

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## Employers Holding Federal Contracts or Subcontracts

Applicants to and employees of companies with a Federal government contract or subcontract, are protected under Federal law from discrimination on the following bases.

### **RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN**

Executive Order 11246, as amended, prohibits job discrimination on the basis of race, color, religion, sex or national origin, and requires affirmative action to ensure equality of opportunity in all aspects of employment.

### **INDIVIDUALS WITH DISABILITIES**

Section 503 of the Rehabilitation Act of 1973, as amended, protects qualified individuals from discrimination on the basis of disability in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. Disability discrimination includes not making reasonable accommodation to the known physical or mental limitations of an otherwise qualified employee, barring undue hardship. Section 503 also requires that Federal contractors take affirmative action to employ and advance in employment qualified individuals with disabilities at all levels of employment, including the executive level.

### **DISABLED, RECENTLY SEPARATED, OTHER PROTECTED, AND ARMED FORCES SERVICE MEDAL VETERANS**

The Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended, 38 U.S.C. 4212, prohibits job discrimination and requires affirmative action to employ and advance in employment disabled veterans, recently separated veterans (within

three years of discharge or release from active duty), other protected veterans (veterans who served during a war or in a campaign or expedition for which a campaign badge has been authorized), and Armed Forces service medal veterans (veterans who, while on active duty, participated in a U.S. military operation for which an Armed Forces service medal was awarded).

### **RETALIATION**

Retaliation is prohibited against a person who files a complaint of discrimination, participates in an OFCCP proceeding, or otherwise opposes discrimination under these Federal laws.

Any person who believes a contractor has violated its nondiscrimination or affirmative action obligations under the authorities above should contact immediately:

The Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210, 1-800-397-6251 (toll-free) or (202) 693-1337 (TTY). OFCCP may also be contacted by e-mail at [OFCCP-Public@dol.gov](mailto:OFCCP-Public@dol.gov), or by calling an OFCCP regional or district office, listed in most telephone directories under U.S. Government, Department of Labor.

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## Programs or Activities Receiving Federal Financial Assistance

### **RACE, COLOR, NATIONAL ORIGIN, SEX**

In addition to the protections of Title VII of the Civil Rights Act of 1964, as amended, Title VI of the Civil Rights Act of 1964, as amended, prohibits discrimination on the basis of race, color or national origin in programs or activities receiving Federal financial assistance. Employment discrimination is covered by Title VI if the primary objective of the financial assistance is provision of employment, or where employment discrimination causes or may cause discrimination in providing services under such programs. Title IX of the Education Amendments of 1972 prohibits employment discrimination on the basis of sex in educational programs or activities which receive Federal financial assistance.

### **INDIVIDUALS WITH DISABILITIES**

Section 504 of the Rehabilitation Act of 1973, as amended, prohibits employment discrimination on the basis of disability in any program or activity which receives Federal financial assistance. Discrimination is prohibited in all aspects of employment against persons with disabilities who, with or without reasonable accommodation, can perform the essential functions of the job.

If you believe you have been discriminated against in a program of any institution which receives Federal financial assistance, you should immediately contact the Federal agency providing such assistance.

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## FEDERAL WAGE RATES

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"General Decision Number: CA20240025 12/06/2024

Superseded General Decision Number: CA20230025

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

County: Riverside County in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none"> <li>. Executive Order 14026 generally applies to the contract.</li> <li>. The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.</li> </ul>
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none"> <li>. Executive Order 13658 generally applies to the contract.</li> <li>. The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.</li> </ul>

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/05/2024
1	01/12/2024
2	01/19/2024
3	02/23/2024
4	03/08/2024
5	05/24/2024
6	06/28/2024
7	07/05/2024
8	07/12/2024
9	08/09/2024
10	08/16/2024
11	08/23/2024
12	09/06/2024
13	09/13/2024
14	09/20/2024
15	10/18/2024
16	11/08/2024
17	11/29/2024
18	12/06/2024

ASBE0005-002 09/01/2023

	Rates	Fringes
Asbestos Workers/Insulator (Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems).....	\$ 49.58	25.27
Fire Stop Technician (Application of Firestopping Materials for wall openings and penetrations in walls, floors, ceilings and curtain walls).....	\$ 36.97	20.36

ASBE0005-004 07/04/2022

	Rates	Fringes
Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not)....	\$ 23.52	13.37

BOIL0092-003 01/01/2024

	Rates	Fringes
BOILERMAKER.....	\$ 51.98	42.11

\* BRCA0004-011 05/01/2024

	Rates	Fringes
BRICKLAYER; MARBLE SETTER.....	\$ 45.53	20.29

\*The wage scale for prevailing wage projects performed in Blythe, China lake, Death Valley, Fort Irwin, Twenty-Nine Palms, Needles and 1-15 corridor (Barstow to the Nevada State Line) will be Three Dollars (\$3.00) above the standard San Bernardino/Riverside County hourly wage rate

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BRCA0018-004 06/01/2023

	Rates	Fringes
MARBLE FINISHER.....	\$ 40.21	15.23
TILE FINISHER.....	\$ 34.78	13.64
TILE LAYER.....	\$ 48.29	19.18

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BRCA0018-010 09/01/2023

	Rates	Fringes
TERRAZZO FINISHER.....	\$ 39.95	14.65
TERRAZZO WORKER/SETTER.....	\$ 47.85	15.14

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\* CARP0213-001 01/01/2024

	Rates	Fringes
CARPENTER		
(1) Carpenter, Cabinet Installer, Insulation Installer, Hardwood Floor Worker and acoustical installer.....	\$ 48.86	22.88
(2) Millwright.....	\$ 49.36	22.88
(3) Piledrivermen/Derrick Bargeman, Bridge or Dock Carpenter, Heavy Framer, Rock Bargeman or Scowman, Rockslinger, Shingler (Commercial).....	\$ 48.99	22.88
(4) Pneumatic Nailer, Power Stapler.....	\$ 51.85	16.28
(5) Sawfiler.....	\$ 51.69	16.28
(6) Scaffold Builder.....	\$ 40.77	22.38
(7) Table Power Saw Operator.....	\$ 51.70	16.28

FOOTNOTE: Work of forming in the construction of open cut sewers or storm drains, on operations in which horizontal lagging is used in conjunction with steel H-Beams driven or placed in pre- drilled holes, for that portion of a lagged trench against which concrete is poured, namely, as a substitute for back forms (which work is performed by piledrivers): \$0.13 per hour additional.

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CARP0213-002 07/01/2021

	Rates	Fringes
Diver		
(1) Wet.....	\$ 834.40	16.28
(2) Standby.....	\$ 445.84	16.28
(3) Tender.....	\$ 437.84	16.28
(4) Assistant Tender.....	\$ 413.84	16.28



Amounts in ""Rates' column are per day

\* CARP0213-004 01/01/2024

	Rates	Fringes
Drywall		
DRYWALL INSTALLER/LATHER....	\$ 48.86	22.88
STOCKER/SCRAPPER.....	\$ 20.80	9.97

CARP0721-001 07/01/2021

	Rates	Fringes
Modular Furniture Installer.....	\$ 21.85	7.15

ELEC0440-001 01/01/2024

	Rates	Fringes
ELECTRICIAN		
INSIDE ELECTRICIAN.....	\$ 53.76	3%+27.50
INTELLIGENT TRANSPORTATION SYSTEMS		
Electrician.....	\$ 36.99	3%+23.18
Technician.....	\$ 27.75	3%+23.18

ZONE PAY: Zone A: Free travel zone for all contractors performing work in Zone A.

Zone B: Any work performed in Zone (B) shall add \$12.00 per hour to the current wage scale. Zone (B) shall be the area from the eastern perimeter of Zone (A) to a line which runs north and south beginning at Little Morongo Canyon (San Bernardino/Riverside County Line), Southeast along the Coachella Tunnels, Colorado River Aqueduct and Mecca Tunnels to Pinkham Wash then South to Box Canyon Road, then southwest along Box Canyon Road to Highway 195 west onto 195 south to Highway 86 to Riverside/Imperial County Line.

ELEC1245-001 06/01/2024

	Rates	Fringes
LINE CONSTRUCTION		
(1) Lineman; Cable splicer..	\$ 70.16	24.46
(2) Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes, trenchers, cranes (50 tons and below), overhead & underground distribution line equipment).....	\$ 53.30	22.01
(3) Groundman.....	\$ 40.76	21.51
(4) Powderman.....	\$ 51.87	18.79

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and day after Thanksgiving, Christmas Day

ELEV0018-001 01/01/2024

	Rates	Fringes
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ELEVATOR MECHANIC.....\$ 66.63                      37.885+a+b

FOOTNOTE:

a. PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.

b. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

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ENGI0012-004 08/01/2024

	Rates	Fringes
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OPERATOR: Power Equipment  
(DREDGING)

(1) Leverman.....	\$ 64.10	38.75
(2) Dredge dozer.....	\$ 58.13	38.75
(3) Deckmate.....	\$ 58.02	38.75
(4) Winch operator (stern winch on dredge).....	\$ 57.47	38.75
(5) Fireman-Oiler, Deckhand, Bargeman, Leveehand.....	\$ 56.93	38.75
(6) Barge Mate.....	\$ 57.54	38.75

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ENGI0012-024 07/01/2023

	Rates	Fringes
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OPERATOR: Power Equipment  
(All Other Work)

GROUP 1.....	\$ 53.90	32.80
GROUP 2.....	\$ 54.68	32.80
GROUP 3.....	\$ 54.97	32.80
GROUP 4.....	\$ 56.46	32.80
GROUP 6.....	\$ 56.68	32.80
GROUP 8.....	\$ 56.79	32.80
GROUP 10.....	\$ 56.91	32.80
GROUP 12.....	\$ 57.08	32.80
GROUP 13.....	\$ 57.18	32.80
GROUP 14.....	\$ 57.21	32.80
GROUP 15.....	\$ 57.29	32.80
GROUP 16.....	\$ 57.41	32.80
GROUP 17.....	\$ 57.58	32.80
GROUP 18.....	\$ 57.68	32.80
GROUP 19.....	\$ 57.79	32.80
GROUP 20.....	\$ 57.91	32.80
GROUP 21.....	\$ 58.08	32.80
GROUP 22.....	\$ 58.18	32.80
GROUP 23.....	\$ 58.29	32.80
GROUP 24.....	\$ 58.41	32.80
GROUP 25.....	\$ 58.58	32.80

OPERATOR: Power Equipment  
(Cranes, Piledriving &  
Hoisting)

GROUP 1.....	\$ 55.25	32.80
GROUP 2.....	\$ 56.03	32.80
GROUP 3.....	\$ 56.32	32.80
GROUP 4.....	\$ 56.46	32.80
GROUP 5.....	\$ 56.68	32.80
GROUP 6.....	\$ 56.79	32.80

GROUP 7.....	\$ 56.91	32.80
GROUP 8.....	\$ 57.08	32.80
GROUP 9.....	\$ 57.25	32.80
GROUP 10.....	\$ 58.25	32.80
GROUP 11.....	\$ 59.25	32.80
GROUP 12.....	\$ 60.25	32.80
GROUP 13.....	\$ 61.25	32.80
OPERATOR: Power Equipment (Tunnel Work)		
GROUP 1.....	\$ 55.75	32.80
GROUP 2.....	\$ 56.53	32.80
GROUP 3.....	\$ 56.82	32.80
GROUP 4.....	\$ 56.96	32.80
GROUP 5.....	\$ 57.18	32.80
GROUP 6.....	\$ 57.29	32.80
GROUP 7.....	\$ 57.41	32.80

#### PREMIUM PAY:

\$10.00 per hour shall be paid on all Power Equipment Operator work on the following Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton

Workers required to suit up and work in a hazardous material environment: \$2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.

#### SEE ZONE DEFINITIONS AFTER CLASSIFICATIONS

#### POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bargeman; Brakeman; Compressor operator; Ditch Witch, with seat or similar type equipment; Elevator operator-inside; Engineer Oiler; Forklift operator (includes loed, lull or similar types under 5 tons; Generator operator; Generator, pump or compressor plant operator; Pump operator; Signalman; Switchman

GROUP 2: Asphalt-rubber plant operator (nurse tank operator);Coil Tubing Rig Operator, Concrete mixer operator-skip type; Conveyor operator; Fireman; Forklift operator (includes loed, lull or similar types over 5 tons; Hydrostatic pump operator; oiler crusher (asphalt or concrete plant); Petromat laydown machine; PJU side dum jack; Screening and conveyor machine operator (or similar types); Skiploader (wheel type up to 3/4 yd. without attachment); Tar pot fireman; Temporary heating plant operator; Trenching machine oiler

GROUP 3: Asphalt-rubber blend operator; Bobcat or similar type (Skid steer); Equipment greaser (rack); Ford Ferguson (with dragtype attachments); Helicopter radioman (ground); Stationary pipe wrapping and cleaning machine operator

GROUP 4: Asphalt plant fireman; Backhoe operator (mini-max or similar type); Boring machine operator; Boxman or mixerman (asphalt or concrete); Chip spreading machine operator; Concrete cleaning decontamination machine operator; Concrete Pump Operator (small portable);Direct Push Operator (Geoprobe or similar types) Drilling machine operator, small auger types (Texoma super economatic or similar types - Hughes 100 or 200 or similar types -

drilling depth of 30' maximum); Equipment greaser (grease truck); Guard rail post driver operator; Highline cableway signalman; Hydra-hammer-aero stomper; Micro Tunneling (above ground tunnel); Power concrete curing machine operator; Power concrete saw operator; Power-driven jumbo form setter operator; Power sweeper operator; Rock Wheel Saw/Trencher; Roller operator (compacting); Screed operator (asphalt or concrete); Trenching machine operator (up to 6 ft.); Vacuum or much truck

GROUP 6: Articulating material hauler; Asphalt plant engineer; Batch plant operator; Bit sharpener; Concrete joint machine operator (canal and similar type); Concrete planer operator; Dandy digger; Deck engine operator; Derrickman (oilfield type); Drilling machine operator, bucket or auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum); Drilling machine operator; Hydrographic seeder machine operator (straw, pulp or seed), Jackson track maintainer, or similar type; Kalamazoo Switch tamper, or similar type; Machine tool operator; Maginnis internal full slab vibrator, Mechanical berm, curb or gutter (concrete or asphalt); Mechanical finisher operator (concrete, Clary-Johnson-Bidwell or similar); Micro tunnel system (below ground); Pavement breaker operator (truck mounted); Road oil mixing machine operator; Roller operator (asphalt or finish), rubber-tired earth moving equipment (single engine, up to and including 25 yds. struck); Self-propelled tar pipelining machine operator; Skiploader operator (crawler and wheel type, over 3/4 yd. and up to and including 1-1/2 yds.); Slip form pump operator (power driven hydraulic lifting device for concrete forms); Tractor operator-bulldozer, tamper-scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types); Tugger hoist operator (1 drum); Ultra high pressure waterjet cutting tool system operator; Vacuum blasting machine operator

GROUP 8: Asphalt or concrete spreading operator (tamping or finishing); Asphalt paving machine operator (Barber Greene or similar type); Asphalt-rubber distribution operator; Backhoe operator (up to and including 3/4 yd.), small ford, Case or similar types; Cable Bundling Machine Operator (excluding handheld); Cable Trenching Machine Operator (Spider Plow or similar types) Cast-in-place pipe laying machine operator; Combination mixer and compressor operator (guniting work); Compactor operator (self-propelled); Concrete mixer operator (paving); Crushing plant operator; Drill Doctor; Drilling machine operator, Bucket or auger types (Calweld 150 bucket or similar types - Watson 1500, 2000 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum); Elevating grader operator; Grade checker; Gradall operator; Grouting machine operator; Heavy-duty repairman; Heavy equipment robotics operator; Kalamazoo balliste regulator or similar type; Kolman belt loader and similar type; Le Tourneau blob compactor or similar type; Loader operator (Athey, Euclid, Sierra and similar types); Mobark Chipper or similar; Ozzie padder or similar types; P.C. slot saw; Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pumpcrete gun operator; RCM Cementing Unit Operator, Rail/Switch Grinder Operator (Harsco or similar types) Rock Drill or similar types; Rotary drill operator

(excluding caisson type); Rubber-tired earth-moving equipment operator (single engine, caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator (multiple engine up to and including 25 yds. struck); Rubber-tired scraper operator (self-loading paddle wheel type-John Deere, 1040 and similar single unit); Self-propelled curb and gutter machine operator; Shuttle buggy; Skiploader operator (crawler and wheel type over 1-1/2 yds. up to and including 6-1/2 yds.); Soil remediation plant operator; Surface heaters and planer operator; Tractor compressor drill combination operator; Tractor operator (any type larger than D-5 - 100 flywheel h.p. and over, or similar-bulldozer, tamper, scraper and push tractor single engine); Tractor operator (boom attachments), Traveling pipe wrapping, cleaning and bending machine operator; Trenching machine operator (over 6 ft. depth capacity, manufacturer's rating); trenching Machine with Road Miner attachment (over 6 ft depth capacity); Ultra high pressure waterjet cutting tool system mechanic; Water pull (compaction) operator

GROUP 10: Drilling machine operator, Bucket or auger types (Calweld 200 B bucket or similar types-Watson 3000 or 5000 auger or similar types-Texoma 900 auger or similar types-drilling depth of 105' maximum); Dual drum mixer, dynamic compactor LDC350 (or similar types); Monorail locomotive operator (diesel, gas or electric); Motor patrol-blade operator (single engine); Multiple engine tractor operator (Euclid and similar type-except Quad 9 cat.); Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Pneumatic pipe ramming tool and similar types; Prestressed wrapping machine operator; Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Rubber tired earth moving equipment operator (multiple engine, Euclid, caterpillar and similar over 25 yds. and up to 50 yds. struck), Tower crane repairman; Tractor loader operator (crawler and wheel type over 6-1/2 yds.); Woods mixer operator (and similar Pugmill equipment)

GROUP 12: Auto grader operator; Automatic slip form operator; Drilling machine operator, bucket or auger types (Calweld, auger 200 CA or similar types - Watson, auger 6000 or similar types - Hughes Super Duty, auger 200 or similar types - drilling depth of 175' maximum); Hoe ram or similar with compressor; Mass excavator operator less than 750 cu. yards; Mechanical finishing machine operator; Mobile form traveler operator; Motor patrol operator (multi-engine); Pipe mobile machine operator; Rubber-tired earth-moving equipment operator (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck); Rubber-tired self-loading scraper operator (paddle-wheel-auger type self-loading - two (2) or more units)

GROUP 13: Rubber-tired earth-moving equipment operator operating equipment with push-pull system (single engine, up to and including 25 yds. struck)

GROUP 14: Canal liner operator; Canal trimmer operator; Remote-control earth-moving equipment operator (operating a second piece of equipment: \$1.00 per hour additional); Wheel excavator operator (over 750 cu. yds.)

GROUP 15: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine-up to and including 25 yds. struck)

GROUP 16: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 17: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 50 cu. yds. struck); Tandem tractor operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 18: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

GROUP 19: Rotex concrete belt operator (or similar types); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, up to and including 25 yds. struck)

GROUP 20: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 21: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

GROUP 22: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, up to and including 25 yds. struck)

GROUP 23: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating with the tandem push-pull system (multiple engine, up to and including 25 yds. struck)

GROUP 24: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 25: Concrete pump operator-truck mounted; Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck); Spyder Excavator Operator, with all attachments

#### CRANES, PILEDRIVING AND HOISTING EQUIPMENT CLASSIFICATIONS

GROUP 1: Engineer oiler; Fork lift operator (includes loed, lull or similar types)

GROUP 2: Truck crane oiler

GROUP 3: A-frame or winch truck operator; Ross carrier operator (jobsite)

GROUP 4: Bridge-type unloader and turntable operator; Helicopter hoist operator

GROUP 5: Hydraulic boom truck; Stinger crane (Austin-Western or similar type); Tugger hoist operator (1 drum)

GROUP 6: Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist and/or manlift operator; Polar gantry crane operator; Self Climbing scaffold (or similar type); Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator

GROUP 7: Pedestal crane operator; Shovel, backhoe, dragline, clamshell operator (over 5 cu. yds. mrc); Tower crane repair; Tugger hoist operator (3 drum)

GROUP 8: Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity); Shovel, backhoe, dragline, clamshell operator (over 7 cu. yds., M.R.C.)

GROUP 9: Crane operator (over 25 tons and up to and including 50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator; Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator; Self erecting tower crane operator maximum lifting capacity ten tons

GROUP 10: Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.);

GROUP 11: Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc) ; Tower crane operator and tower gantry

GROUP 12: Crane operator (over 200 tons up to and including 300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc)

GROUP 13: Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons)

#### TUNNEL CLASSIFICATIONS

GROUP 1: Skiploader (wheel type up to 3/4 yd. without attachment)

GROUP 2: Power-driven jumbo form setter operator

GROUP 3: Dinkey locomotive or motorperson (up to and including 10 tons)

GROUP 4: Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons)

GROUP 5: Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons)

GROUP 6: Heavy Duty Repairman

GROUP 7: Tunnel mole boring machine operator

#### ENGINEERS ZONES

\$1.00 additional per hour for all of IMPERIAL County and the portions of KERN, RIVERSIDE & SAN BERNARDINO Counties as defined below:

That area within the following Boundary: Begin in San Bernardino County, approximately 3 miles NE of the intersection of I-15 and the California State line at that point which is the NW corner of Section 1, T17N,m R14E, San Bernardino Meridian. Continue W in a straight line to that point which is the SW corner of the northwest quarter of Section 6, T27S, R42E, Mt. Diablo Meridian. Continue North to the intersection with the Inyo County Boundary at that point which is the NE



corner of the western half of the northern quarter of Section 6, T25S, R42E, MDM. Continue W along the Inyo and San Bernardino County boundary until the intersection with Kern County, as that point which is the SE corner of Section 34, T24S, R40E, MDM. Continue W along the Inyo and Kern County boundary until the intersection with Tulare County, at that point which is the SW corner of the SE quarter of Section 32, T24S, R37E, MDM. Continue W along the Kern and Tulare County boundary, until that point which is the NW corner of T25S, R32E, MDM. Continue S following R32E lines to the NW corner of T31S, R32E, MDM. Continue W to the NW corner of T31S, R31E, MDM. Continue S to the SW corner of T32S, R31E, MDM. Continue W to SW corner of SE quarter of Section 34, T32S, R30E, MDM. Continue S to SW corner of T11N, R17W, SBM. Continue E along south boundary of T11N, SBM to SW corner of T11N, R7W, SBM. Continue S to SW corner of T9N, R7W, SBM. Continue E along south boundary of T9N, SBM to SW corner of T9N, R1E, SBM. Continue S along west boundary of R1E, SMB to Riverside County line at the SW corner of T1S, R1E, SBM. Continue E along south boundary of T1s, SBM (Riverside County Line) to SW corner of T1S, R10E, SBM. Continue S along west boundary of R10E, SBM to Imperial County line at the SW corner of T8S, R10E, SBM. Continue W along Imperial and Riverside county line to NW corner of T9S, R9E, SBM. Continue S along the boundary between Imperial and San Diego Counties, along the west edge of R9E, SBM to the south boundary of Imperial County/California state line. Follow the California state line west to Arizona state line, then north to Nevada state line, then continuing NW back to start at the point which is the NW corner of Section 1, T17N, R14E, SBM

\$1.00 additional per hour for portions of SAN LUIS OBISPO, KERN, SANTA BARBARA & VENTURA as defined below:

That area within the following Boundary: Begin approximately 5 miles north of the community of Cholame, on the Monterey County and San Luis Obispo County boundary at the NW corner of T25S, R16E, Mt. Diablo Meridian. Continue south along the west side of R16E to the SW corner of T30S, R16E, MDM. Continue E to SW corner of T30S, R17E, MDM. Continue S to SW corner of T31S, R17E, MDM. Continue E to SW corner of T31S, R18E, MDM. Continue S along West side of R18E, MDM as it crosses into San Bernardino Meridian numbering area and becomes R30W. Follow the west side of R30W, SBM to the SW corner of T9N, R30W, SBM. Continue E along the south edge of T9N, SBM to the Santa Barbara County and Ventura County boundary at that point which is the SW corner of Section 34. T9N, R24W, SBM, continue S along the Ventura County line to that point which is the SW corner of the SE quarter of Section 32, T7N, R24W, SBM. Continue E along the south edge of T7N, SBM to the SE corner to T7N, R21W, SBM. Continue N along East side of R21W, SBM to Ventura County and Kern County boundary at the NE corner of T8N, R21W. Continue W along the Ventura County and Kern County boundary to the SE corner of T9N, R21W. Continue North along the East edge of R21W, SBM to the NE corner of T12N, R21W, SBM. Continue West along the north edge of T12N, SBM to the SE corner of T32S, R21E, MDM. [T12N SBM is a think strip between T11N SBM and T32S MDM]. Continue North along the East side of R21E, MDM to the Kings County and Kern County border at the NE corner of T25S, R21E, MDM, continue West along the Kings County and Kern County Boundary until the intersection of San Luis Obispo County. Continue west along the Kings County and San Luis Obispo County boundary until the intersection with Monterey County. Continue West along the Monterey County and San Luis Obispo County boundary to the beginning point at the NW corner

of T25S, R16E, MDM.

\$2.00 additional per hour for INYO and MONO Counties and the Northern portion of SAN BERNARDINO County as defined below:

That area within the following Boundary: Begin at the intersection of the northern boundary of Mono County and the California state line at the point which is the center of Section 17, T10N, R22E, Mt. Diablo Meridian. Continue S then SE along the entire western boundary of Mono County, until it reaches Inyo County at the point which is the NE corner of the Western half of the NW quarter of Section 2, T8S, R29E, MDM. Continue SSE along the entire western boundary of Inyo County, until the intersection with Kern County at the point which is the SW corner of the SE 1/4 of Section 32, T24S, R37E, MDM. Continue E along the Inyo and Kern County boundary until the intersection with San Bernardino County at that point which is the SE corner of section 34, T24S, R40E, MDM. Continue E along the Inyo and San Bernardino County boundary until the point which is the NE corner of the Western half of the NW quarter of Section 6, T25S, R42E, MDM. Continue S to that point which is the SW corner of the NW quarter of Section 6, T27S, R42E, MDM. Continue E in a straight line to the California and Nevada state border at the point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Then continue NW along the state line to the starting point, which is the center of Section 18, T10N, R22E, MDM.

REMAINING AREA NOT DEFINED ABOVE RECIEVES BASE RATE

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IRON0433-006 01/01/2024

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 42.53	26.26
Ornamental, Reinforcing and Structural.....	\$ 47.45	34.90

PREMIUM PAY:

\$9.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland,  
Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Seale, Vandenberg AFB Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center  
Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

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LAB00300-005 07/01/2024

	Rates	Fringes
Asbestos Removal Laborer.....	\$ 43.88	25.13

SCOPE OF WORK: Includes site mobilization, initial site cleanup, site preparation, removal of asbestos-containing material and toxic waste, encapsulation, enclosure and disposal of asbestos- containing materials and toxic waste by hand or with equipment or machinery; scaffolding, fabrication of temporary wooden barriers and assembly of decontamination stations.

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LAB00345-001 07/01/2022

	Rates	Fringes
LABORER (GUNITE)		
GROUP 1.....	\$ 48.50	21.37
GROUP 2.....	\$ 47.55	21.37
GROUP 3.....	\$ 44.01	21.37

FOOTNOTE: GUNITE PREMIUM PAY: Workers working from a Bosn'n's Chair or suspended from a rope or cable shall receive 40 cents per hour above the foregoing applicable classification rates. Workers doing gunite and/or shotcrete work in a tunnel shall receive 35 cents per hour above the foregoing applicable classification rates, paid on a portal-to-portal basis. Any work performed on, in or above any smoke stack, silo, storage elevator or similar type of structure, when such structure is in excess of 75'-0"" above base level and which work must be performed in whole or in part more than 75'-0"" above base level, that work performed above the 75'-0"" level shall be compensated for at 35 cents per hour above the applicable classification wage rate.

#### GUNITE LABORER CLASSIFICATIONS

GROUP 1: Rodmen, Nozzlemen

GROUP 2: Gunmen

GROUP 3: Reboundmen

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LAB01184-001 07/01/2022

	Rates	Fringes
Laborers: (HORIZONTAL DIRECTIONAL DRILLING)		
(1) Drilling Crew Laborer...	\$ 40.69	18.25
(2) Vehicle Operator/Hauler.	\$ 40.86	18.25
(3) Horizontal Directional Drill Operator.....	\$ 42.71	18.25
(4) Electronic Tracking Locator.....	\$ 44.71	18.25
Laborers: (STRIPING/SLURRY SEAL)		
GROUP 1.....	\$ 41.90	21.32
GROUP 2.....	\$ 43.20	21.32
GROUP 3.....	\$ 45.21	21.32
GROUP 4.....	\$ 46.95	21.32

#### LABORERS - STRIPING CLASSIFICATIONS

GROUP 1: Protective coating, pavement sealing, including repair and filling of cracks by any method on any surface

in parking lots, game courts and playgrounds; carstops;  
operation of all related machinery and equipment; equipment  
repair technician

GROUP 2: Traffic surface abrasive blaster; pot tender -  
removal of all traffic lines and markings by any method  
(sandblasting, waterblasting, grinding, etc.) and  
preparation of surface for coatings. Traffic control  
person: controlling and directing traffic through both  
conventional and moving lane closures; operation of all  
related machinery and equipment

GROUP 3: Traffic delineating device applicator: Layout and  
application of pavement markers, delineating signs, rumble  
and traffic bars, adhesives, guide markers, other traffic  
delineating devices including traffic control. This  
category includes all traffic related surface preparation  
(sandblasting, waterblasting, grinding) as part of the  
application process. Traffic protective delineating system  
installer: removes, relocates, installs, permanently  
affixed roadside and parking delineation barricades,  
fencing, cable anchor, guard rail, reference signs,  
monument markers; operation of all related machinery and  
equipment; power broom sweeper

GROUP 4: Striper: layout and application of traffic stripes  
and markings; hot thermo plastic; tape traffic stripes and  
markings, including traffic control; operation of all  
related machinery and equipment

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LAB01184-002 07/01/2022

	Rates	Fringes
LABORER (TUNNEL)		
GROUP 1.....	\$ 45.68	23.30
GROUP 2.....	\$ 46.00	23.30
GROUP 3.....	\$ 46.46	23.30
GROUP 4.....	\$ 47.15	23.30
LABORER		
GROUP 1.....	\$ 36.39	21.04
GROUP 2.....	\$ 36.94	21.04
GROUP 3.....	\$ 37.49	21.04
GROUP 4.....	\$ 39.04	21.04
GROUP 5.....	\$ 39.39	21.04

#### LABORER CLASSIFICATIONS

GROUP 1: Cleaning and handling of panel forms; Concrete  
screeding for rough strike-off; Concrete, water curing;  
Demolition laborer, the cleaning of brick if performed by a  
worker performing any other phase of demolition work, and  
the cleaning of lumber; Fire watcher, limber, brush loader,  
piler and debris handler; Flag person; Gas, oil and/or  
water pipeline laborer; Laborer, asphalt-rubber material  
loader; Laborer, general or construction; Laborer, general  
clean-up; Laborer, landscaping; Laborer, jetting; Laborer,  
temporary water and air lines; Material hose operator  
(walls, slabs, floors and decks); Plugging, filling of shee  
bolt holes; Dry packing of concrete; Railroad maintenance,  
repair track person and road beds; Streetcar and railroad  
construction track laborers; Rigging and signaling; Scaler;  
Slip form raiser; Tar and mortar; Tool crib or tool house  
laborer; Traffic control by any method; Window cleaner;

Wire mesh pulling - all concrete pouring operations

GROUP 2: Asphalt shoveler; Cement dumper (on 1 yd. or larger mixer and handling bulk cement); Cesspool digger and installer; Chucktender; Chute handler, pouring concrete, the handling of the chute from readymix trucks, such as walls, slabs, decks, floors, foundation, footings, curbs, gutters and sidewalks; Concrete curer, impervious membrane and form oiler; Cutting torch operator (demolition); Fine grader, highways and street paving, airport, runways and similar type heavy construction; Gas, oil and/or water pipeline wrapper - pot tender and form person; Guinea chaser; Headerboard person - asphalt; Laborer, packing rod steel and pans; Membrane vapor barrier installer; Power broom sweeper (small); Riprap stonepaver, placing stone or wet sacked concrete; Roto scraper and tiller; Sandblaster (pot tender); Septic tank digger and installer(lead); Tank scaler and cleaner; Tree climber, faller, chain saw operator, Pittsburgh chipper and similar type brush shredder; Underground laborer, including caisson bellower

GROUP 3: Buggymobile person; Concrete cutting torch; Concrete pile cutter; Driller, jackhammer, 2-1/2 ft. drill steel or longer; Dri-pak-it machine; Gas, oil and/or water pipeline wrapper, 6-in. pipe and over, by any method, inside and out; High scaler (including drilling of same); Hydro seeder and similar type; Impact wrench multi-plate; Kettle person, pot person and workers applying asphalt, lay-kold, creosote, lime caustic and similar type materials ("applying" means applying, dipping, brushing or handling of such materials for pipe wrapping and waterproofing); Operator of pneumatic, gas, electric tools, vibrating machine, pavement breaker, air blasting, come-alongs, and similar mechanical tools not separately classified herein; Pipelayer's backup person, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services; Rock slinger; Rotary scarifier or multiple head concrete chipping scarifier; Steel headerboard and guideline setter; Tamper, Barko, Wacker and similar type; Trenching machine, hand-propelled

GROUP 4: Asphalt raker, lute person, ironer, asphalt dump person, and asphalt spreader boxes (all types); Concrete core cutter (walls, floors or ceilings), grinder or sander; Concrete saw person, cutting walls or flat work, scoring old or new concrete; Cribber, shorer, lagging, sheeting and trench bracing, hand-guided lagging hammer; Head rock slinger; Laborer, asphalt- rubber distributor boot person; Laser beam in connection with laborers' work; Oversize concrete vibrator operator, 70 lbs. and over; Pipelayer performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, metallic or non-metallic, conduit and any other stationary type of tubular device used for the conveying of any substance or element, whether water, sewage, solid gas, air, or other product whatsoever and without regard to the nature of material from which the tubular material is fabricated; No-joint pipe and stripping of same; Prefabricated manhole installer; Sandblaster (nozzle person), water blasting, Porta Shot-Blast

GROUP 5: Blaster powder, all work of loading holes, placing and blasting of all powder and explosives of whatever type,

regardless of method used for such loading and placing;  
 Driller: All power drills, excluding jackhammer, whether  
 core, diamond, wagon, track, multiple unit, and any and all  
 other types of mechanical drills without regard to the form  
 of motive power; Toxic waste removal

#### TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Batch plant laborer; Changehouse person; Dump  
 person; Dump person (outside); Swamper (brake person and  
 switch person on tunnel work); Tunnel materials handling  
 person; Nipper; Pot tender, using mastic or other materials  
 (for example, but not by way of limitation, shotcrete, etc.)

GROUP 2: Chucktender, cabletender; Loading and unloading  
 agitator cars; Vibrator person, jack hammer, pneumatic  
 tools (except driller); Bull gang mucker, track person;  
 Concrete crew, including rodger and spreader

GROUP 3: Blaster, driller, powder person; Chemical grout jet  
 person; Cherry picker person; Grout gun person; Grout mixer  
 person; Grout pump person; Jackleg miner; Jumbo person;  
 Kemper and other pneumatic concrete placer operator; Miner,  
 tunnel (hand or machine); Nozzle person; Operating of  
 troweling and/or grouting machines; Powder person (primer  
 house); Primer person; Sandblaster; Shotcrete person; Steel  
 form raiser and setter; Timber person, retimber person,  
 wood or steel; Tunnel Concrete finisher

GROUP 4: Diamond driller; Sandblaster; Shaft and raise work

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 LAB01184-004 07/01/2022

	Rates	Fringes
Brick Tender.....	\$ 37.32	21.45

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 LAB01414-001 08/03/2022

	Rates	Fringes
LABORER		
PLASTER CLEAN-UP LABORER....	\$ 38.92	23.32
PLASTER TENDER.....	\$ 41.47	23.32

Work on a swing stage scaffold: \$1.00 per hour additional.

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 PAIN0036-001 07/01/2023

	Rates	Fringes
Painters: (Including Lead Abatement)		
(1) Repaint (excludes San Diego County).....	\$ 29.59	17.12
(2) All Other Work.....	\$ 38.52	18.64

REPAINT of any previously painted structure. Exceptions:  
 work involving the aerospace industry, breweries,  
 commercial recreational facilities, hotels which operate  
 commercial establishments as part of hotel service, and  
 sports facilities.

PAIN0036-008 09/01/2024

	Rates	Fringes
DRYWALL FINISHER/TAPER.....	\$ 49.33	26.82

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PAIN0036-015 06/01/2024

	Rates	Fringes
GLAZIER.....	\$ 58.00	26.25

FOOTNOTE: Additional \$1.25 per hour for work in a condor,  
from the third (3rd) floor and up Additional \$1.25 per  
hour for work on the outside of the building from a swing  
stage or any suspended contrivance, from the ground up

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PLAS0200-009 08/03/2022

	Rates	Fringes
PLASTERER.....	\$ 47.37	19.64

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PLAS0500-002 07/01/2023

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 44.00	27.11

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PLUM0016-001 09/01/2024

	Rates	Fringes
PLUMBER/PIPEFITTER		
Work ONLY on new additions and remodeling of bars, restaurant, stores and commercial buildings not to exceed 5,000 sq. ft. of floor space.....	\$ 57.67	25.63
Work ONLY on strip malls, light commercial, tenant improvement and remodel work.....	\$ 44.24	23.96
All other work except work on new additions and remodeling of bars, restaurant, stores and commercial buildings not to exceed 5,000 sq. ft. of floor space and work on strip malls, light commercial, tenant improvement and remodel work.....	\$ 59.48	26.61

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PLUM0345-001 09/01/2023

	Rates	Fringes
PLUMBER		
Landscape/Irrigation Fitter..	\$ 40.20	25.90
Sewer & Storm Drain Work....	\$ 44.29	23.28

ROOF0036-002 08/01/2024

	Rates	Fringes
ROOFER.....	\$ 49.43	20.58

FOOTNOTE: Pitch premium: Work on which employees are exposed to pitch fumes or required to handle pitch, pitch base or pitch impregnated products, or any material containing coal tar pitch, the entire roofing crew shall receive \$1.75 per hour ""pitch premium"" pay.

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SFCA0669-002 01/01/2024

	Rates	Fringes
SPRINKLER FITTER.....	\$ 45.31	27.91

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SHEE0105-003 07/01/2024

LOS ANGELES (South of a straight line drawn between Gorman and Big Pines)and Catalina Island, INYO, KERN (Northeast part, East of Hwy 395), MONO ORANGE, RIVERSIDE, AND SAN BERNARDINO COUNTIES

	Rates	Fringes
SHEET METAL WORKER		
(1) Commercial - New Construction and Remodel work.....	\$ 59.40	30.34
(2) Industrial work including air pollution control systems, noise abatement, hand rails, guard rails, excluding aritechatural sheet metal work, excluding A-C, heating, ventilating systems for human comfort...	\$ 56.95	30.04

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TEAM0011-002 07/01/2024

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 39.59	34.34
GROUP 2.....	\$ 39.74	34.34
GROUP 3.....	\$ 39.87	34.34
GROUP 4.....	\$ 40.06	34.34
GROUP 5.....	\$ 40.09	34.34
GROUP 6.....	\$ 40.12	34.34
GROUP 7.....	\$ 40.37	34.34
GROUP 8.....	\$ 40.62	34.34
GROUP 9.....	\$ 40.82	34.34
GROUP 10.....	\$ 41.12	34.34
GROUP 11.....	\$ 41.62	34.34
GROUP 12.....	\$ 42.05	34.34

WORK ON ALL MILITARY BASES:

PREMIUM PAY: \$3.00 per hour additional.

[29 palms Marine Base, Camp Roberts, China Lake, Edwards AFB, El Centro Naval Facility, Fort Irwin, Marine Corps Logistics Base at Nebo & Yermo, Mountain Warfare Training



Center, Bridgeport, Point Arguello, Point Conception,  
Vandenberg AFB]

## TRUCK DRIVERS CLASSIFICATIONS

### GROUP 1: Truck driver

GROUP 2: Driver of vehicle or combination of vehicles - 2 axles; Traffic control pilot car excluding moving heavy equipment permit load; Truck mounted broom

GROUP 3: Driver of vehicle or combination of vehicles - 3 axles; Boot person; Cement mason distribution truck; Fuel truck driver; Water truck - 2 axle; Dump truck, less than 16 yds. water level; Erosion control driver

GROUP 4: Driver of transit mix truck, under 3 yds.; Dumpcrete truck, less than 6-1/2 yds. water level

GROUP 5: Water truck, 3 or more axles; Truck greaser and tire person (\$0.50 additional for tire person); Pipeline and utility working truck driver, including winch truck and plastic fusion, limited to pipeline and utility work; Slurry truck driver

GROUP 6: Transit mix truck, 3 yds. or more; Dumpcrete truck, 6-1/2 yds. water level and over; Vehicle or combination of vehicles - 4 or more axles; Oil spreader truck; Dump truck, 16 yds. to 25 yds. water level

GROUP 7: A Frame, Swedish crane or similar; Forklift driver; Ross carrier driver

GROUP 8: Dump truck, 25 yds. to 49 yds. water level; Truck repair person; Water pull - single engine; Welder

GROUP 9: Truck repair person/welder; Low bed driver, 9 axles or over

GROUP 10: Dump truck - 50 yds. or more water level; Water pull - single engine with attachment

GROUP 11: Water pull - twin engine; Water pull - twin engine with attachments; Winch truck driver - \$1.25 additional when operating winch or similar special attachments

### GROUP 12: Boom Truck 17K and above

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their

own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at

<https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

#### State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R. 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

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## STATE WAGE RATES

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GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1 FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

LOCALITY: RIVERSIDE COUNTY  
DETERMINATION: RIV-2024-2

CRAFT	CLASSIFICATION	CRAFT FOOTNOTE	ISSUE DATE	EXPIRATION DATE	BASIC HOURLY RATE	BASIC HOURLY RATE FOOTNOTE	HEALTH AND WELFARE	HEALTH AND WELFARE FOOTNOTE	PENSION	PENSION FOOTNOTE	VACATION/ HOLIDAY	VACATION/ HOLIDAY FOOTNOTE	TRAINING	TRAINING FOOTNOTE	OTHER PAYMENTS	OTHER PAYMENTS FOOTNOTE	HOURS	HOURS FOOTNOTE	STRAIGHT-TIME TOTAL HOURLY RATE	DAILY OVERTIME HOURLY RATE	DAILY OVERTIME HOURLY RATE FOOTNOTE	SATURDAY OVERTIME HOURLY RATE	SATURDAY OVERTIME HOURLY RATE FOOTNOTE	SUNDAY AND HOLIDAY OVERTIME HOURLY RATE	SUNDAY AND HOLIDAY OVERTIME HOURLY RATE FOOTNOTE	HOLIDAY PROVISIONS	SCOPE OF WORK PROVISIONS	TRAVEL & SUBSISTENCE PROVISIONS
#BRICKLAYER:	BRICKLAYER, CEMENT BLOCKLAYER, POINTER, CAULKER, CLEANER		08/22/2024	04/30/2025**	\$50.070	A	\$9.250		\$9.830		\$0.000		\$1.210	B	\$1.050		8.0	C	\$71.410	\$94.180	D	\$94.180	D	\$116.940		Holidays	Scope of Work	Travel & Subsistence
#BRICKLAYER:	STONEMASON, MARBLE MASON		08/22/2024	04/30/2025**	\$50.070	A	\$9.250		\$9.830		\$0.000		\$1.210	B	\$0.650		8.0	C	\$71.010	\$93.780	D	\$93.780	D	\$116.540		Holidays	Scope of Work	Travel & Subsistence
#BRICKLAYER:	MASON FINISHER		08/22/2024	04/30/2025**	\$45.060	A	\$9.250		\$9.830		\$0.000		\$1.160	B	\$0.650		8.0	C	\$65.950	\$86.410	D	\$86.410	D	\$106.870		Holidays	Scope of Work	Travel & Subsistence
#BRICK TENDER		E	08/22/2024	06/30/2025**	\$41.530		\$9.250		\$9.820	F	\$4.400	G	\$0.800		\$0.450		8.0	C	\$66.250	\$87.020		\$87.020		\$107.780		Holidays	Scope of Work	Travel & Subsistence
#BRICK TENDER	FORKLIFT OPERATOR		08/22/2024	06/30/2025**	\$41.980		\$9.250		\$9.820	F	\$4.400	G	\$0.800		\$0.450		8.0	C	\$66.700	\$87.690		\$87.690		\$108.680		Holidays	Scope of Work	Travel & Subsistence
#CARPET, LINOLEUM,	RESILIENT TILE LAYER		08/22/2024	12/31/2024**	\$43.200	H	\$8.780		\$6.050		\$2.520		\$0.680		\$0.280		8.0		\$61.510	\$83.110		\$83.110	I	\$104.710		Holidays	Scope of Work	Travel & Subsistence
CARPET, LINOLEUM,	MATERIAL HANDLER	J	08/22/2024	12/31/2024**	\$17.280	H	\$8.780		\$2.140		\$1.020		\$0.680		\$0.280		8.0		\$30.180	\$38.820		\$38.820	K	\$47.460		Holidays	Scope of Work	Travel & Subsistence
#DRYWALL FINISHER			08/22/2024	08/31/2025**	\$49.330	H	\$9.200		\$11.630		\$5.070		\$0.920		\$1.170		8.0		\$77.320	\$101.990		\$101.990	L	\$126.650		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	SOUND INSTALLER		08/22/2024	12/30/2024**	\$44.070		\$10.720		\$7.300	M	\$0.000		\$0.650		\$0.300	N	8.0		\$64.360	\$87.060	Q	\$87.060	Q	\$109.750		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	INSIDE WIREMAN, TECHNICIAN		02/22/2023	11/30/2023*	\$52.510	P	\$10.160		\$14.330	M	\$0.000		\$0.920		\$0.260	Q	8.0		\$80.040	\$107.210	R	\$107.210	R	\$134.380		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	CABLE SPLICER		02/22/2023	11/30/2023*	\$55.140	P	\$10.160		\$14.330	M	\$0.000		\$0.920		\$0.280	Q	8.0		\$82.760	\$111.300	R	\$111.300	R	\$139.840		Holidays	Scope of Work	Travel & Subsistence
#FIELD SURVEYOR:	CHIEF OF PARTY (018.167-010)	S	08/22/2024	09/30/2024**	\$61.510		\$12.850		\$14.650		\$5.070	G	\$1.150		\$0.150		8.0		\$95.380	\$126.140	Q	\$126.140	Q	\$156.890		Holidays	Scope of Work	Travel & Subsistence
#FIELD SURVEYOR:	INSTRUMENTMAN (018.167-034)	S	08/22/2024	09/30/2024**	\$55.860		\$12.850		\$14.650		\$4.900	G	\$1.150		\$0.150		8.0		\$89.560	\$117.490	Q	\$117.490	Q	\$145.420		Holidays	Scope of Work	Travel & Subsistence
#FIELD SURVEYOR:	CHAINMAN/RODMAN (869.567-010)	S	08/22/2024	09/30/2024**	\$55.280		\$12.850		\$14.650		\$4.850	G	\$1.150		\$0.150		8.0		\$88.930	\$116.570	Q	\$116.570	Q	\$144.210		Holidays	Scope of Work	Travel & Subsistence
#GLAZIER			08/22/2024	05/31/2025**	\$58.000	I	\$9.150	U	\$15.750		\$0.000	V	\$0.820		\$1.260		8.0		\$84.980	\$111.480	W	\$111.480	W	\$137.980		Holidays	Scope of Work	Travel & Subsistence
#MARBLE FINISHER			08/22/2024	05/31/2025**	\$43.380	X	\$9.250		\$5.020		\$0.000		\$1.190		\$0.510		8.0		\$59.350	\$81.040	Y	\$81.040	Z	\$102.730	AA	Holidays	Scope of Work	Travel & Subsistence
#PAINTER:	PAINTER, LEAD ABATEMENT	AB	08/22/2024	06/30/2025*	\$40.620	P	\$9.200		\$6.040		\$3.050		\$0.750		\$1.010		8.0		\$60.670	\$80.980	AC	\$80.980	AC	\$101.290		Holidays	Scope of Work	Travel & Subsistence
#PAINTER:	INDUSTRIAL PAINTER	AB	08/22/2024	06/30/2025*	\$44.020	P	\$9.200		\$6.040		\$3.350		\$0.850		\$1.010		8.0		\$64.470	\$86.480	AC	\$86.480	AC	\$108.490		Holidays	Scope of Work	Travel & Subsistence
PAINTER:	GRAFFITI REMOVAL WORKER JOURNEYMAN (APPLIES ONLY TO PAINT-OVER METHOD)	AD	02/22/2024	01/31/2025*	\$29.000	X	\$8.500		\$1.000		\$1.000		\$0.750		\$0.000		8.0		\$40.250	\$54.750		\$54.750	K	\$69.250		Holidays	Scope of Work	Travel & Subsistence
PAINTER:	GRAFFITI REMOVAL WORKER 1 (APPLIES ONLY TO PAINT-OVER METHOD)	AE	02/22/2024	01/31/2025*	\$19.500	X	\$8.500		\$1.000		\$1.000		\$0.750		\$0.000		8.0		\$30.750	\$40.500		\$40.500	K	\$50.250		Holidays	Scope of Work	Travel & Subsistence
PAINTER:	GRAFFITI REMOVAL WORKER 2 (APPLIES ONLY TO PAINT-OVER METHOD)	AF	02/22/2024	01/31/2025*	\$20.370	X	\$8.500		\$1.000		\$1.000		\$0.750		\$0.000		8.0		\$31.620	\$41.810		\$41.810	K	\$51.990		Holidays	Scope of Work	Travel & Subsistence
#PLASTERER			08/22/2024	07/31/2025**	\$44.180		\$9.630		\$9.840		\$8.370	AG	\$1.490		\$1.190		8.0	AH	\$74.700	\$96.790	AC	\$96.790	AI	\$118.880		Holidays	Scope of Work	Travel & Subsistence
#PLASTER TENDER		AJ	08/22/2024	08/05/2025**	\$46.120		\$9.250		\$11.470		\$5.300	AK	\$1.200		\$0.960		8.0		\$74.300	\$97.360	AL	\$97.360	AM	\$120.420		Holidays	Scope of Work	Travel & Subsistence
PLASTER TENDER	PLASTER CLEAN-UP LABORER		08/22/2024	08/05/2025**	\$43.570		\$9.250		\$11.470		\$5.300	AK	\$1.200		\$0.960		8.0		\$71.750	\$93.540	AL	\$93.540	AM	\$115.320		Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	PLUMBER, INDUSTRIAL AND GENERAL PIPEFITTER		08/22/2024	08/31/2025**	\$59.480	AN	\$9.260		\$14.300	AO	\$0.000	AP	\$3.050		\$1.600	AQ	8.0		\$87.690	\$116.460	D	\$116.460	D	\$143.520		Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	SEWER AND STORM DRAIN PIPELAYER		08/22/2024	08/31/2025**	\$46.590	AN	\$9.150		\$11.450	AO	\$0.000	AP	\$2.780		\$1.600	AQ	8.0		\$71.570	\$93.890		\$93.890	AR	\$115.530		Holidays	Scope of Work	Travel & Subsistence
PLUMBER:	SEWER AND STORM DRAIN PIPE TRADESMAN	AS	08/22/2024	08/31/2025**	\$23.020	AT	\$9.400		\$0.380		\$0.000		\$1.860		\$1.450	AQ	8.0		\$36.110	\$46.650		\$46.650	AR	\$57.180		Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	SERVICE & REPAIR (PLUMBER/HVAC-FITTER)		08/22/2024	08/31/2025**	\$57.670	AN	\$9.260		\$13.990	AO	\$0.000	AP	\$2.380		\$1.600	AQ	8.0		\$84.900	\$112.760		\$112.760	AU	\$138.920	AV	Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	LANDSCAPE/IRRIGATION FITTER		08/22/2024	08/31/2025**	\$42.500	X	\$9.260		\$14.300	AO	\$0.000	AP	\$2.440		\$1.400	AQ	8.0		\$69.900	\$91.150		\$91.150	AR	\$110.970		Holidays	Scope of Work	Travel & Subsistence
PLUMBER:	LANDSCAPE/IRRIGATION TRADESMAN	AW	08/22/2024	08/31/2025**	\$19.010	X	\$3.000		\$1.160	AO	\$0.000		\$0.100		\$1.200	AQ	8.0		\$24.470	\$33.980		\$33.980	AR	\$43.480		Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	FIRE SPRINKLER FITTER (PROTECTION AND CONTROL SYSTEMS, OVERHEAD AND UNDERGROUND)		08/22/2024	12/31/2024**	\$47.450		\$11.910		\$15.460	AX	\$0.000		\$0.540		\$0.250		8.0		\$75.610	\$99.340		\$99.340		\$123.060		Holidays	Scope of Work	Travel & Subsistence
#ROOFER			08/22/2024	07/31/2025**	\$49.430	AY	\$8.560		\$11.400	F	\$0.000	AZ	\$0.530		\$0.720	BA	8.0		\$70.640	\$93.190	BB	\$93.190	BB	\$115.740		Holidays	Scope of Work	Travel & Subsistence
#ROOFER	PITCH WORK		08/22/2024	07/31/2025**	\$51.180	AY	\$8.560		\$11.400	F	\$0.000	AZ	\$0.530		\$0.720	BA	8.0		\$72.390	\$95.820	BB	\$95.820	BB	\$119.240		Holidays	Scope of Work	Travel & Subsistence
#ROOFER	PREPARER		08/22/2024	07/31/2025**	\$50.430	AY	\$8.560		\$11.400	F	\$0.000	AZ	\$0.530		\$0.720	BA	8.0		\$71.640	\$94.690	BB	\$94.690	BB	\$117.740		Holidays	Scope of Work	Travel & Subsistence
#SHEET METAL WORKER			08/22/2024	12/31/2024*	\$59.400	P	\$11.620		\$17.920	BC	\$0.000		\$0.820		\$0.720		8.0		\$90.480	\$120.180	BD	\$120.180	BD	\$149.880		Holidays	Scope of Work	Travel & Subsistence
#TERRAZZO FINISHER			08/22/2024	08/31/2025**	\$42.110	H	\$9.250		\$4.600		\$0.000	BE	\$0.820		\$0.320		8.0	AR	\$57.100	\$78.160	Y	\$78.160	BE	\$99.210	AA	Holidays	Scope of Work	Travel & Subsistence
#TERRAZZO WORKER			08/22/2024	08/31/2025**	\$49.620	H	\$9.250		\$4.860		\$0.000	BE	\$1.150		\$0.370		8.0	AR	\$65.250	\$90.060	Y	\$90.060	BF	\$114.870	AA	Holidays	Scope of Work	Travel & Subsistence
#TILE FINISHER			08/22/2024	05/31/2025**	\$37.960	X	\$9.250		\$3.500		\$0.000		\$1.120		\$0.460		8.0		\$52.290	\$71.270	Y	\$71.270	Z	\$90.250	AA	Holidays	Scope of Work	Travel & Subsistence
#TILE LAYER			08/22/2024	05/31/2025**	\$51.820	X	\$9.250		\$8.850		\$0.000		\$1.320		\$0.570		8.0		\$71.810	\$97.720	Y	\$97.720	Z	\$123.630	AA	Holidays	Scope of Work	Travel & Subsistence

[Go to increase page](#)

FOOTNOTES

- \* EFFECTIVE UNTIL SUPERSEDED BY A NEW DETERMINATION ISSUED BY THE DIRECTOR OF INDUSTRIAL RELATIONS. CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774 FOR THE NEW RATES AFTER TEN DAYS AFTER THE EXPIRATION DATE IF NO SUBSEQUENT DETERMINATION IS ISSUED.
- \*\* THE RATE TO BE PAID FOR WORK PERFORMED AFTER THIS DATE HAS BEEN DETERMINED. IF WORK WILL EXTEND PAST THIS DATE, THE NEW RATE MUST BE PAID AND SHOULD BE INCORPORATED IN CONTRACTS ENTERED INTO NOW. CONTACT THE OFFICE OF THE DIRECTOR RESEARCH UNIT FOR SPECIFIC RATES AT (415) 703-4774.
- # INDICATES AN APPRENTICEABLE CRAFT. THE CURRENT APPRENTICE WAGE RATES ARE AVAILABLE ON THE INTERNET @ HTTP://WWW.DIR.CA.GOV/OPRL/PWAPPWAGE/PWAPPWAGESTART.ASP.
- & THE BASIC HOURLY RATE AND EMPLOYER PAYMENTS ARE NOT TAKEN FROM A COLLECTIVE BARGAINING AGREEMENT FOR THIS CRAFT OR CLASSIFICATION.
- A INCLUDES AMOUNTS FOR DUES CHECK OFF, CONTRACT COMPLIANCE AND VACATION WHICH ARE NOT FACTORED INTO OVERTIME RATES.
- B INCLUDES AN AMOUNT FOR IMI TRAINING FUND.
- C SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER, OR REASONS BEYOND THE CONTROL OF THE EMPLOYER.
- D RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.
- E THE RATIO OF BRICK TENDERS TO BRICKLAYERS SHALL BE AS FOLLOWS: ONE (1) BRICK TENDER TO NO MORE THAN THREE (3) BRICKLAYERS DURING THE INSTALLATION OF BLOCK ON A TYPICAL MASONRY PROJECT.
- F INCLUDES AN AMOUNT PER HOUR WORKED FOR ANNUITY TRUST FUND.
- G INCLUDES AN AMOUNT PER HOUR WORKED FOR SUPPLEMENTAL DUES.
- H INCLUDES AMOUNT WITHHELD FOR DUES CHECK OFF.
- I RATE APPLIES TO THE FIRST 12 HOURS WORKED ON SATURDAY, ALL OTHER TIME IS PAID AT DOUBLE TIME. SATURDAY MAY BE WORKED AT THE STRAIGHT-TIME HOURLY RATE FOR THE FIRST 8 HOURS IF INCLEMENT WEATHER FORCES A SYNTHETIC/ARTIFICIAL TURF PROJECT TO SHUT DOWN DURING THE REGULAR WORK WEEK (MONDAY THOUGH FRIDAY).
- J A MATERIAL HANDLER MAY BE UTILIZED IN RATIO OF ONE (1) MATERIAL HANDLER WITH ANY FIVE (5) JOURNEYMEN ON ANY GIVEN PROJECT.
- K RATE APPLIES TO THE FIRST 12 HOURS ON SATURDAY, ALL OTHER TIME IS PAID AT DOUBLE TIME.
- L RATE APPLIES TO FIRST 8 HOURS ONLY. DOUBLE TIME THEREAFTER. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER.
- M IN ADDITION, AN AMOUNT EQUAL TO 3% OF THE BASIC HOURLY RATE IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE NATIONAL EMPLOYEES BENEFIT BOARD.
- N INCLUDES AN AMOUNT FOR THE NATIONAL LABOR-MANAGEMENT COOPERATION FUND AND THE ADMINISTRATIVE MAINTENANCE FUND.
- O RATE APPLIES TO THE FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 12 HOURS WORKED ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.
- P INCLUDES AMOUNT WITHHELD FOR WORKING DUES.
- Q IN ADDITION TO THE AMOUNT SHOWN, WHICH IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER FOR EACH OVERTIME HOUR, \$0.28 IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE LABOR MANAGEMENTCOOPERATION COMMITTEE FUND. AMOUNT FOR LABOR MANAGEMENTCOOPERATION COMMITTEE FUND IS NOT FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER
- R RATE APPLIES TO THE FIRST 3 DAILY OVERTIME HOURS AND THE FIRST 8 HOURS WORKED ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.
- S DICTIONARY OF OCCUPATIONAL TITLES, FOURTH EDITION, 1977, U.S. DEPARTMENT OF LABOR.
- T INCLUDES AMOUNT WITHHELD FOR DUES CHECKOFF, WHICH IS FACTORED IN THE OVERTIME RATES. INCLUDES \$5.00 FOR VACATION THAT IS NOT FACTORED IN THE OVERTIME RATES.
- U INCLUDES AN AMOUNT PER HOUR WORKED OR PAID TO DISABILITY FUND.
- V INCLUDED IN STRAIGHT-TIME HOURLY RATE WHICH IS NOT FACTORED IN THE OVERTIME RATES.
- W RATE APPLIES TO THE FIRST 2 OVERTIME HOURS MONDAY THROUGH FRIDAY AND THE FIRST 8 HOURS WORKED ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE.
- X INCLUDES AMOUNT WITHHELD FOR ADMINISTRATIVE DUES.
- Y RATE APPLIES TO FIRST TWO DAILY OVERTIME HOURS WORKED; ALL OTHER OVERTIME IS PAID AT THE HOLIDAY OVERTIME HOURLY RATE.
- Z SATURDAY OVERTIME HOURLY RATE SHALL NOT BE OWED FOR WORK PERFORMED ON A SATURDAY UNLESS AND UNTIL THE EMPLOYEE HAS WORKED 8 HOURS ON THAT DAY OR 40 HOURS OVER THE COURSE OF THE WORK WEEK OF WHICH THE SATURDAY IS A PART, WHICHEVER COMES FIRST. RATE APPLIES TO THE FIRST 8 HOURS WORKED ON A SIXTH OR SEVENTH CONSECUTIVE DAY DURING ANY ONE CALENDAR WEEK UP TO 50 HOURS IN ANY ONE CALENDAR WEEK. ALL HOURS IN EXCESS OF 10 HOURS DAILY OR 50 HOURS WEEKLY ARE PAID AT THE HOLIDAY RATE. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.
- AA RATE APPLIES TO WORK ON HOLIDAYS ONLY; SUNDAYS ARE PAID AT THE SATURDAY OVERTIME HOURLY RATE.
- AB AN ADDITIONAL \$0.25 PER HOUR WILL BE ADDED TO THE BASIC HOURLY RATE WHEN PERFORMING PAPERHANGING WORK.
- AC DOUBLE TIME SHALL BE PAID FOR ALL HOURS WORKED OVER 12 HOURS IN ANY ONE DAY.
- AD RATE APPLIES AFTER 36 MONTHS OF EXPERIENCE
- AE RATE APPLIES TO FIRST 12 MONTHS OF EXPERIENCE
- AF RATE APPLIES AFTER 12 MONTHS THROUGH 36 MONTHS EXPERIENCE
- AG INCLUDES AN AMOUNT PER HOUR WORKED OR PAID FOR DUES CHECK OFF
- AH SATURDAY IN THE SAME WORKWEEK MAY BE WORKED AT THE STRAIGHT-TIME HOURLY RATE IF IT IS NOT POSSIBLE TO COMPLETE FORTY HOURS OF WORK MONDAY THROUGH FRIDAY WHEN THE JOB IS SHUT DOWN DUE TO INCLEMENT WEATHER OR SIMILAR ACT OF GOD, OR BEYOND THE CONTRACTOR'S CONTROL.
- AI RATE APPLIES TO THE FIRST 8 HOURS WORKED; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.
- AJ THE RATIO OF PLASTER TENDERS TO PLASTERERS SHALL BE AS FOLLOWS: THERE SHALL BE A PLASTER TENDER ON THE JOBSITE WHENEVER THERE IS A PLASTERER PERFORMING WORK ON THE JOBSITE, EXCEPT ON SMALL PATCH WORK WHERE ONLY ONE PLASTERER IS PERFORMING WORK. FOR INSIDE BROWN COATINGS THERE SHALL BE 2 PLASTER TENDERS FOR UP TO EVERY 3 PLASTERERS. FOR INSIDE FINISH COATINGS THERE SHALL BE 1 PLASTER TENDER FOR UP TO EVERY 3 PLASTERERS. ON OUTSIDE FINISH AND BROWN COATINGS AND FOR ALL OTHER WORK, THERE SHALL BE 1 PLASTER TENDER FOR UP TO EVERY 2 PLASTERERS.
- AK INCLUDES AN AMOUNT PER HOUR WORKED OR PAID FOR SUPPLEMENTAL DUES.
- AL ALL WORK PERFORMED AFTER TWELVE (12) HOURS IN A DAY SHALL BE PAID AT THE SUNDAY/HOLIDAY RATE.
- AM RATE APPLIES TO THE FIRST EIGHT HOURS ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE. SATURDAY WORK MAY BE PAID AT THE STRAIGHT TIME RATE IF THE JOB IS SHUT DOWN DURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER.
- AN INCLUDES AN AMOUNT WITHHELD FOR ADMINISTRATIVE DUES WHICH IS NOT FACTORED INTO OVERTIME AND AN AMOUNT FOR VACATION WHICH IS FACTORED AT 1.5 TIMES FOR ALL OVERTIME.
- AO INCLUDES AMOUNT FOR NATIONAL PENSION AND RETIREE'S X-MAS FUND.
- AP AMOUNT INCLUDED IN BASIC HOURLY RATE AND FACTORED AT 1.5 TIMES FOR ALL OVERTIME.
- AQ INCLUDES AN AMOUNT FOR THE P.I.P.E. LABOR MANAGEMENT COOPERATION COMMITTEE AND THE CONTRACTOR EDUCATION & DEVELOPMENT FUND.
- AR SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.
- AS PIPE TRADESMEN SHALL NOT BE PERMITTED ON ANY JOB WITHOUT A JOURNEYMAN.
- AT INCLUDES AN AMOUNT WITHHELD FOR ADMINISTRATIVE DUES WHICH IS NOT FACTORED IN THE OVERTIME RATES.
- AU SATURDAY MAY BE WORKED AT STRAIGHT-TIME RATE, PROVIDED THAT THE HOURS DO NOT EXCEED 8 HOURS PER DAY OR 40 HOURS PER WEEK.
- AV DOUBLE TIME SHALL BE PAID FOR NEW YEAR'S DAY, EASTER SUNDAY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS.
- AW TRADESMEN SHALL ONLY BE USED IF THE FIRST WORKER ON THE JOB IS A LANDSCAPE/IRRIGATION FITTER, SECOND WORKER MUST BE A LANDSCAPE/IRRIGATION FITTER OR APPRENTICE LANDSCAPE/IRRIGATION FITTER. THE 3RD AND 4TH MAY BE A TRADESMAN. THE 5TH MUST BE A LANDSCAPE/IRRIGATION FITTER AND THEREAFTER TRADESMEN WILL BE REFERRED ON A 50-50 BASIS, TO JOURNEYMAN OR APPRENTICE.
- AX INCLUDES AN AMOUNT FOR SUPPLEMENTAL PENSION FUND.

- AY INCLUDE AMOUNTS FOR DUES CHECK OFF AND VACATION/HOLIDAY, WHICH ARE NOT FACTORED INTO OVERTIME.
- AZ INCLUDED IN BASIC HOURLY RATE. VACATION IS NOT FACTORED INTO OVERTIME.
- BA INCLUDE AMOUNTS FOR ADMINISTRATIVE FUND, COMPLIANCE FUND, INDUSTRY FUND, AND RESEARCH AND EDUCATION TRUST FUND.
- BB RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; SUNDAY AND HOLIDAY OVERTIME HOURLY RATE WILL BE PAID AFTER 10 HOURS PER DAY AND ALL HOURS WORKED OVER 55 HOURS PER WEEK.
- BC PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.
- BD RATE APPLIES FOR THE FIRST 4 OVERTIME HOURS MONDAY THROUGH FRIDAY AND THE FIRST 12 HOURS WORKED ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY/HOLIDAY RATE. SATURDAYS IN THE SAME WORKWEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.
- BE INCLUDED IN STRAIGHT-TIME HOURLY RATE.
- BF RATE APPLIES TO THE FIRST 8 HOURS WORKED ON A SIXTH OR SEVENTH CONSECUTIVE DAY DURING ANY ONE CALENDAR WEEK UP TO 50 HOURS IN ANY ONE CALENDAR WEEK. ALL OTHER TIME IS PAID AT THE HOLIDAY RATE.

RECOGNIZED HOLIDAYS: HOLIDAYS UPON WHICH THE GENERAL PREVAILING HOURLY WAGE RATE FOR HOLIDAY WORK SHALL BE PAID, SHALL BE ALL HOLIDAYS IN THE COLLECTIVE BARGAINING AGREEMENT, APPLICABLE TO THE PARTICULAR CRAFT, CLASSIFICATION, OR TYPE OF WORKER EMPLOYED ON THE PROJECT, WHICH IS ON FILE WITH THE DIRECTOR OF INDUSTRIAL RELATIONS. 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. YOU MAY OBTAIN THE HOLIDAY PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT [HTTP://WWW.DIR.CA.GOV/OPRL/DPreWageDetermination.htm](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). HOLIDAY PROVISIONS FOR THE CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE: IN ACCORDANCE WITH LABOR CODE SECTIONS 1773.1 AND 1773.9, CONTRACTORS SHALL MAKE TRAVEL AND/OR SUBSISTENCE PAYMENTS TO EACH WORKER TO EXECUTE THE WORK. YOU MAY OBTAIN THE TRAVEL AND/OR SUBSISTENCE PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT [HTTP://WWW.DIR.CA.GOV/OPRL/DPreWageDetermination.htm](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). TRAVEL AND/OR SUBSISTENCE REQUIREMENTS FOR CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.

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# GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1 FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

LOCALITY: RIVERSIDE COUNTY

DETERMINATION: RIV-2024-2

PREDETERMINED INCREASES

CRAFT	CLASSIFICATION	CRAFT FOOTNOTE	ISSUE DATE	EXPIRATION DATE	DATE OF NEXT INCREASE 1	AMOUNT OF INCREASE 1	INCREASE FOOTNOTE 1	DATE OF NEXT INCREASE 2	AMOUNT OF INCREASE 2	INCREASE FOOTNOTE 2
BRICKLAYER:	BRICKLAYER, CEMENT BLOCKLAYER, POINTER, CAULKER, CLEANER		08/22/2024	04/30/2025**	05/01/2025	\$3.450	<a href="#">A</a>			
BRICKLAYER:	STONEMASON, MARBLE MASON		08/22/2024	04/30/2025**	05/01/2025	\$3.450	<a href="#">A</a>			
BRICKLAYER:	MASON FINISHER		08/22/2024	04/30/2025**	05/01/2025	\$3.100	<a href="#">A</a>			
BRICK TENDER		<a href="#">B</a>	08/22/2024	06/30/2025**	07/01/2025	\$2.200	<a href="#">A</a>			
BRICK TENDER	FORKLIFT OPERATOR		08/22/2024	06/30/2025**	07/01/2025	\$2.200	<a href="#">A</a>			
CARPET, LINOLEUM,	RESILIENT TILE LAYER		08/22/2024	12/31/2024**	01/01/2025	\$3.350	<a href="#">C</a>	01/01/2026	\$2.650	<a href="#">D</a>
CARPET, LINOLEUM,	MATERIAL HANDLER	<a href="#">E</a>	08/22/2024	12/31/2024**	01/01/2025	\$2.030	<a href="#">F</a>	01/01/2026	\$1.320	<a href="#">G</a>
DRYWALL FINISHER			08/22/2024	08/31/2025**	09/01/2025	\$3.500	<a href="#">A</a>			
ELECTRICIAN:	SOUND INSTALLER		08/22/2024	12/30/2024**	12/31/2024	\$1.600	<a href="#">A</a>	06/30/2025	\$1.600	<a href="#">A</a>
FIELD SURVEYOR:	CHIEF OF PARTY (018.167-010)	<a href="#">H</a>	08/22/2024	09/30/2024**	10/01/2024	\$4.000	<a href="#">I</a>			
FIELD SURVEYOR:	INSTRUMENTMAN (018.167-034)	<a href="#">H</a>	08/22/2024	09/30/2024**	10/01/2024	\$3.000	<a href="#">J</a>			
FIELD SURVEYOR:	CHAINMAN/RODMAN (869.567-010)	<a href="#">H</a>	08/22/2024	09/30/2024**	10/01/2024	\$3.000	<a href="#">J</a>			
GLAZIER			08/22/2024	05/31/2025**	06/01/2025	\$3.270	<a href="#">K</a>			
MARBLE FINISHER			08/22/2024	05/31/2025**	06/01/2025	\$3.410	<a href="#">A</a>			
PLASTERER			08/22/2024	07/31/2025**	08/01/2025	\$3.500	<a href="#">A</a>			
PLASTER TENDER		<a href="#">L</a>	08/22/2024	08/05/2025**	08/06/2025	\$3.400	<a href="#">A</a>			
PLASTER TENDER	PLASTER CLEAN-UP LABORER		08/22/2024	08/05/2025**	08/06/2025	\$3.400	<a href="#">A</a>			
PLUMBER:	PLUMBER, INDUSTRIAL AND GENERAL PIPEFITTER		08/22/2024	08/31/2025**	09/01/2025	\$2.500	<a href="#">A</a>			
PLUMBER:	SEWER AND STORM DRAIN PIPELAYER		08/22/2024	08/31/2025**	09/01/2025	\$2.500	<a href="#">A</a>			
PLUMBER:	SEWER AND STORM DRAIN PIPE TRADESMAN	<a href="#">M</a>	08/22/2024	08/31/2025**	09/01/2025	\$1.000	<a href="#">A</a>			

CRAFT	CLASSIFICATION	CRAFT FOOTNOTE	ISSUE DATE	EXPIRATION DATE	DATE OF NEXT INCREASE 1	AMOUNT OF INCREASE 1	INCREASE FOOTNOTE 1	DATE OF NEXT INCREASE 2	AMOUNT OF INCREASE 2	INCREASE FOOTNOTE 2
PLUMBER:	SERVICE & REPAIR (PLUMBER/HVAC-FITTER)		08/22/2024	08/31/2025**	09/01/2025	\$2.500	<a href="#">A</a>			
PLUMBER:	LANDSCAPE/IRRIGATION FITTER		08/22/2024	08/31/2025**	09/01/2025	\$2.500	<a href="#">A</a>			
PLUMBER:	LANDSCAPE/IRRIGATION TRADESMAN	<a href="#">N</a>	08/22/2024	08/31/2025**	09/01/2025	\$0.650	<a href="#">A</a>			
PLUMBER:	FIRE SPRINKLER FITTER (PROTECTION AND CONTROL SYSTEMS, OVERHEAD AND UNDERGROUND)		08/22/2024	12/31/2024**	01/01/2025	\$0.590	<a href="#">A</a>			
ROOFER			08/22/2024	07/31/2025**	08/01/2025	\$3.350	<a href="#">Q</a>			
ROOFER	PITCH WORK		08/22/2024	07/31/2025**	08/01/2025	\$3.350	<a href="#">Q</a>			
ROOFER	PREPARER		08/22/2024	07/31/2025**	08/01/2025	\$3.350	<a href="#">Q</a>			
TERRAZZO FINISHER			08/22/2024	08/31/2025**	09/01/2025	\$3.430	<a href="#">A</a>			
TERRAZZO WORKER			08/22/2024	08/31/2025**	09/01/2025	\$3.260	<a href="#">A</a>			
TILE FINISHER			08/22/2024	05/31/2025**	06/01/2025	\$3.410	<a href="#">A</a>			
TILE LAYER			08/22/2024	05/31/2025**	06/01/2025	\$3.780	<a href="#">A</a>			

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FOOTNOTES

- \*\*

THE RATE TO BE PAID FOR WORK PERFORMED AFTER THIS DATE HAS BEEN DETERMINED. IF WORK WILL EXTEND PAST THIS DATE, THE NEW RATE MUST BE PAID AND SHOULD BE INCORPORATED IN CONTRACTS ENTERED INTO NOW. CONTACT THE OFFICE OF THE DIRECTOR RESEARCH UNIT FOR SPECIFIC RATES AT (415) 703-4774.
- A

THE PREDETERMINED INCREASE SHOWN IS TO BE ALLOCATED TO WAGES AND/OR EMPLOYER PAYMENTS. PLEASE CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774 WHEN THE PREDETERMINED INCREASE BECOMES DUE TO CONFIRM THE DISTRIBUTION. PLEASE ALSO EXAMINE THE IMPORTANT NOTICES TO SEE IF ANY MODIFICATIONS HAVE BEEN ISSUED, AS THERE MAY BE REDUCTIONS TO PREDETERMINED INCREASES.
- B

THE RATIO OF BRICK TENDERS TO BRICKLAYERS SHALL BE AS FOLLOWS: ONE (1) BRICK TENDER TO NO MORE THAN THREE (3) BRICKLAYERS DURING THE INSTALLATION OF BLOCK ON A TYPICAL MASONRY PROJECT.
- C

\$1.95 TO BASIC HOURLY RATE, \$1.00 TO HEALTH & WELFARE, \$0.10 TO VACATION/HOLIDAY, \$0.25 TO PENSION, AND \$0.05 TO TRAINING
- D

\$1.70 TO BASIC HOURLY RATE, \$0.60 TO HEALTH & WELFARE, \$0.06 TO VACATION/HOLIDAY, \$0.25 TO PENSION, AND \$0.04 TO OTHER.
- E

A MATERIAL HANDLER MAY BE UTILIZED IN RATIO OF ONE (1) MATERIAL HANDLER WITH ANY FIVE (5) JOURNEYMEN ON ANY GIVEN PROJECT.
- F

\$0.78 TO BASIC HOURLY RATE, \$1.00 TO HEALTH & WELFARE, \$0.10 TO PENSION, \$0.10 TO VACATION, \$0.05 TO TRAINING.
- G

\$0.68 TO BASIC HOURLY RATE, \$0.60 TO HEALTH & WELFARE, \$0.04 TO OTHER.
- H

DICTIONARY OF OCCUPATIONAL TITLES, FOURTH EDITION, 1977, U.S. DEPARTMENT OF LABOR.
- I

\$2.50 TO BASIC HOURLY RATE, \$0.35 TO HEALTH & WELFARE, \$1.00 TO PENSION, \$0.10 TO VACATION/HOLIDAY AND \$0.05 TO TRAINING
- J

\$1.50 TO BASIC HOURLY RATE, \$0.35 TO HEALTH & WELFARE, \$1.00 TO PENSION, \$0.10 TO VACATION/HOLIDAY AND \$0.05 TO TRAINING
- K

\$2.50 TO BASIC HOURLY RATE, \$0.45 TO HEALTH & WELFARE, \$0.20 PENSION \$0.05 TO TRAINING AND \$0.07 TO OTHER PAYMENTS.
- L

THE RATIO OF PLASTER TENDERS TO PLASTERERS SHALL BE AS FOLLOWS: THERE SHALL BE A PLASTER TENDER ON THE JOBSITE WHENEVER THERE IS A PLASTERER PERFORMING WORK ON THE JOBSITE, EXCEPT ON SMALL PATCH WORK WHERE ONLY ONE PLASTERER IS PERFORMING WORK. FOR INSIDE BROWN COATINGS THERE SHALL BE 2 PLASTER TENDERS FOR UP TO

- EVERY 3 PLASTERERS. FOR INSIDE FINISH COATINGS THERE SHALL BE 1 PLASTER TENDER FOR UP TO EVERY 3 PLASTERERS. ON OUTSIDE FINISH AND BROWN COATINGS AND FOR ALL OTHER WORK, THERE SHALL BE 1 PLASTER TENDER FOR UP TO EVERY 2 PLASTERERS.
- M PIPE TRADESMEN SHALL NOT BE PERMITTED ON ANY JOB WITHOUT A JOURNEYMAN.
- N TRADESMEN SHALL ONLY BE USED IF THE FIRST WORKER ON THE JOB IS A LANDSCAPE/IRRIGATION FITTER, SECOND WORKER MUST BE A LANDSCAPE/IRRIGATION FITTER OR APPRENTICE LANDSCAPE/IRRIGATION FITTER. THE 3RD AND 4TH MAY BE A TRADESMAN. THE 5TH MUST BE A LANDSCAPE/IRRIGATION FITTER AND THEREAFTER TRADESMEN WILL BE REFERRED ON A 50-50 BASIS, TO JOURNEYMAN OR APPRENTICE.
- O \$3.20 TO BASIC HOURLY RATE, \$0.10 TO PENSION, AND \$0.05 TO TRAINING.

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GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER<sup>#</sup>**

**Determination:**

SC-23-63-2-2024-1D

**Issue Date:**

August 22, 2024

**Expiration date of determination:**

June 30, 2025\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

**Localities:**

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

**Wages and Employer Payments:**

Classification <sup>a</sup> (Journeyman)	Basic Hourly Rate	Health and Welfare	Pension <sup>b</sup>	Vacation and Holiday <sup>c</sup>	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate <sup>d</sup> (1½ x)	Saturday Overtime Hourly Rate <sup>e</sup> (1½ x)	Sunday/ Holiday Overtime Hourly Rate (2 x)
Group 1	\$59.18	\$13.20	\$15.65	\$3.95	\$1.10	\$0.43	8	\$93.51	\$123.10	\$123.10	\$152.69
Group 2	\$60.96	\$13.20	\$15.65	\$3.95	\$1.10	\$0.43	8	\$95.29	\$125.77	\$125.77	\$156.25
Group 3	\$62.96	\$13.20	\$15.65	\$3.95	\$1.10	\$0.43	8	\$97.29	\$128.77	\$128.77	\$160.25

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER#  
(SPECIAL SHIFT)**

**Determination:**  
SC-23-63-2-2024-1D

**Issue Date:**  
August 22, 2024

**Expiration date of determination:**  
June 30, 2025\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

**Localities:**  
All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

**Wages and Employer Payments:**

Classification <sup>a</sup> (Journey person)	Basic Hourly Rate	Health and Welfare	Pension <sup>b</sup>	Vacation and Holiday <sup>c</sup>	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate <sup>d</sup> (1½ x)	Saturday Overtime Hourly Rate <sup>e</sup> (1½ x)	Sunday/ Holiday Overtime Hourly Rate (2 x)
Group 1	\$60.18	\$13.20	\$15.65	\$3.95	\$1.10	\$0.43	8	\$94.51	\$124.60	\$124.60	\$154.69
Group 2	\$61.96	\$13.20	\$15.65	\$3.95	\$1.10	\$0.43	8	\$96.29	\$127.27	\$127.27	\$158.25
Group 3	\$63.96	\$13.20	\$15.65	\$3.95	\$1.10	\$0.43	8	\$98.29	\$130.27	\$130.27	\$162.25

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER #  
(MULTI-SHIFT)**

**Determination:**  
SC-23-63-2-2024-1D

**Issue Date:**  
August 22, 2024

**Expiration date of determination:**  
June 30, 2025\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

**Localities:**  
All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

**Wages and Employer Payments:**

Classification <sup>a</sup> (Journey person)	Basic Hourly Rate	Health and Welfare	Pension <sup>b</sup>	Vacation and Holiday <sup>c</sup>	Training	Other	Hours <sup>f</sup>	Total Hourly Rate	Daily Overtime Hourly Rate <sup>d</sup> (1½ x)	Saturday Overtime Hourly Rate <sup>e</sup> (1½ x)	Sunday/ Holiday Overtime Hourly Rate (2 x)
Group 1	\$60.18	\$13.20	\$15.65	\$3.95	\$1.10	\$0.43	8	\$94.51	\$124.60	\$124.60	\$154.69
Group 2	\$61.96	\$13.20	\$15.65	\$3.95	\$1.10	\$0.43	8	\$96.29	\$127.27	\$127.27	\$158.25
Group 3	\$63.96	\$13.20	\$15.65	\$3.95	\$1.10	\$0.43	8	\$98.29	\$130.27	\$130.27	\$162.25

**Recognized holidays:**  
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. 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. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**Travel and/or subsistence payment:**

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**Classifications:**

**Group 1**

Field Soils and Materials Tester  
Field Asphaltic Concrete (Soils and Materials Tester)  
Field Earthwork (Grading Excavation and Filling)  
Roof Inspector  
Water Proofer

**Group 2**

AWS-CWI Welding Inspector  
Building/Construction Inspector  
Licensed Grading Inspector  
Reinforcing Steel  
Reinforced Concrete  
Pre-Tension Concrete

Post-Tension Concrete  
Structural Steel and Welding Inspector  
Glue-Lam and truss Joints  
Truss-Type Joint Construction  
Shear Wall and Floor System used as diaphragms  
Concrete batch Plant  
Spray-Applied Fireproofing  
Structural masonry

**Group 3**

Nondestructive Testing (NDT)  
Unmanned Aircraft Systems (UAS Drones) Operator (when used in conjunction with field soils and material testing – building/construction inspection

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the [Prevailing Wage Apprentice Determinations Website](http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp) (<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>).

<sup>a</sup> For classifications within each group, see Page 4.

<sup>b</sup> Includes an amount for Annuity.

<sup>c</sup> Includes an amount withheld for supplemental dues.

<sup>d</sup> Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

<sup>e</sup> Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

<sup>f</sup> The Third Shift shall work 6.5 hours, exclusive of meal period, for which 8 hours straight-time shall be paid at the non-shift rate, Monday through Friday.

## **PREDETERMINED INCREASE**

### **CRAFT:**

Laborer and Related Classifications

### **DETERMINATION:**

SC-23-102-2-2024-1

### **LOCALITIES:**

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

This predetermined increase for the above named craft applies only to the current determination for work being performed on public works projects with bid advertisement dates on or after September 1, 2024, until this determination is superseded by a new determination or a predetermined increase modification notice becomes effective.

When referencing our prevailing wage determinations, please note that if the prevailing wage rate determination which was in effect on the bid advertisement date of a project, has a single asterisk (\*) after the expiration date, the rate will be good for the life of the project. However, if a prevailing wage rate determination has double asterisks (\*\*) after the expiration date, the rate must be updated on the following date to reflect the predetermined rate change(s).

### **LABORER**

Determination SC-23-102-2-2024-1 is currently in effect and expires on June 30, 2025\*\*.

Effective July 1, 2025, there will be an increase of \$3.40 to be allocated to wages and/or fringes.

There will be no further increases applicable to this determination.

Issued 8/22/2024, Effective 9/1/2024 until superseded.

This page will be updated when wage rate breakdown information becomes available.

Last Updated: September 1, 2024



GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**Craft: Laborer and Related Classifications #**

**Determination:**

SC-23-102-2-2024-1

**Issue Date:**

August 22, 2024

**Expiration date of determination:**

June 30, 2025\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**Localities:**

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

**Wages and Employer Payments:**

Classification <sup>a</sup> (Journeyman)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>b</sup>	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X) <sup>c</sup>	Saturday Overtime Hourly Rate (1 ½ X) <sup>cd</sup>	Sunday/ Holiday Overtime Hourly Rate (2 X)
Group 1	\$43.88	\$9.25	\$12.07	\$5.02	\$0.80	\$0.67	8.0	\$71.69	\$93.630	\$93.630	\$115.570
Group 2	\$44.43	\$9.25	\$12.07	\$5.02	\$0.80	\$0.67	8.0	\$72.24	\$94.455	\$94.455	\$116.670
Group 3	\$44.98	\$9.25	\$12.07	\$5.02	\$0.80	\$0.67	8.0	\$72.79	\$95.280	\$95.280	\$117.770
Group 4	\$46.53	\$9.25	\$12.07	\$5.02	\$0.80	\$0.67	8.0	\$74.34	\$97.605	\$97.605	\$120.870
Group 5	\$46.88	\$9.25	\$12.07	\$5.02	\$0.80	\$0.67	8.0	\$74.69	\$98.130	\$98.130	\$121.570

**Group 1**

Boring Machine Helper (Outside)  
Certified Confined Space Laborer  
Cleaning and Handling of Panel Forms  
Concrete Screeding for Rough Strike-Off  
Concrete, Water Curing  
Demolition Laborer, the cleaning of brick if performed by an employee performing any other phase of demolition work, and the cleaning of lumber  
Fiberoptic Installation, Blowing, Splicing, and Testing Technician on public right-of-way only  
Fire Watcher, Limbers, Brush Loaders, Pilers and Debris Handlers  
Flagman  
Gas, Oil and/or Water Pipeline Laborer  
Laborer, Asphalt-Rubber Material Loader  
Laborer, General or Construction  
Laborer, General Cleanup  
Laborer, Jetting  
Laborer, Temporary Water and Air Lines  
Plugging, Filling of Shee-Bolt Holes; Dry Packing of Concrete and Patching  
Post Hole Digger (Manual)  
Railroad Maintenance, Repair Trackman and Road Beds; Streetcar and Railroad Construction Track Laborers  
Rigging and Signaling  
Scaler  
Slip Form Raisers  
Tarman and Mortar Man  
Tool Crib or Tool House Laborer  
Traffic Control by any method  
Water Well Driller Helper  
Window Cleaner  
Wire Mesh Pulling - All Concrete Pouring Operations

**Group 2**

Asphalt Shoveler  
Cement Dumper (on 1 yard or larger mixer and handling bulk cement)  
Cesspool Digger and Installer  
Chucktender  
Chute Man, pouring concrete, the handling of the chute from readymix trucks, such as walls, slabs, decks,

floors, foundations, footings, curbs, gutters and sidewalks  
Concrete Curer-Impervious Membrane and Form Oiler  
Cutting Torch Operator (Demolition)  
Fine Grader, Highways and Street Paving, Airport, Runways, and similar type heavy construction  
Gas, Oil and/or Water Pipeline Wrapper-Pot Tender and Form Man  
Guinea Chaser  
Headerboard Man-Asphalt  
Installation of all Asphalt Overlay Fabric and Materials used for Reinforcing Asphalt  
Laborer, Packing Rod Steel and Pans  
Membrane Vapor Barrier Installer  
Power Broom Sweepers (small)  
Riprap, Stonepaver, placing stone or wet sacked concrete  
Roto Scraper and Tiller  
Sandblaster (Pot Tender)  
Septic Tank Digger and Installer (leadman)  
Tank Scaler and Cleaner  
Tree Climber, Faller, Chain Saw Operator, Pittsburgh Chipper and similar type Brush Shredders  
Underground Laborer, including Caisson Bellow

**Group 3**

Asphalt Installation of all fabrics  
Buggymobile Man  
Compactor (all types including Tampers, Barko, Wacker)  
Concrete Cutting Torch  
Concrete Pile Cutter  
Driller, Jackhammer, 2 1/2 ft. drill steel or longer  
Dri Pak-it Machine  
Gas, Oil and/or Water Pipeline Wrapper - 6-inch pipe and over by any method, inside and out  
Impact Wrench, Multi-Plate  
Kettlemen, Potmen and Men applying asphalt, lay-kold, creosote, lime caustic and similar type materials  
Laborer, Fence Erector  
Material Hoseman (Walls, Slabs, Floors and Decks)  
Operators of Pneumatic, Gas, Electric Tools, Vibrating Machines, Pavement Breakers, Air Blasting, Come-

Alongs, and similar mechanical tools not separately classified herein; operation of remote controlled robotic tools in connection with Laborers work  
Pipelayer's backup man, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services  
Power Post Hole Digger  
Rock Slinger  
Rotary Scarifier or Multiple Head Concrete Chipping Scarifier  
Steel Headerboard Man and Guideline Setter  
Trenching Machine, Hand Propelled

**Group 4**

Any Worker Exposed to Raw Sewage  
Asphalt Raker, Luteman, Ironer, Asphalt Dumpman, and Asphalt Spreader Boxes (all types)  
Concrete Core Cutter (walls, floors or ceilings), Grinder or Sander  
Concrete Saw Man, Cutting Walls or Flat Work, Scoring old or new concrete  
Cribber, Shorer, Lagging, Sheeting and Trench Bracing, Hand-Guided Lagging Hammer  
Head Rock Slinger  
High Scaler (including drilling of same)  
Laborer, Asphalt-Rubber Distributor Bootman  
Laser Beam in connection with Laborer's work  
Oversize Concrete Vibrator Operator, 70 pounds and over  
Pipelayer  
Prefabricated Manhole Installer  
Sandblaster (Nozzleman), Water Blasting, Porta Shot-Blast  
Subsurface Imaging Laborer  
Traffic Lane Closure, certified

**Group 5**

Blasters Powderman  
Driller  
Toxic Waste Removal  
Welding, certified or otherwise in connection with Laborers' work

**Recognized holidays:**

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. 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. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**Travel and/or subsistence payment:**

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

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# Indicates an apprenticeable craft. The current apprentice wage rates are available on the [Prevailing Wage Apprentice Determinations Website](http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp) (<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>).

<sup>a</sup> For classification within each group, see page 2.

<sup>b</sup> Includes an amount per hour worked for supplemental dues.

<sup>c</sup> Any hours worked over 12 hours in a single workday are double (2) time.

<sup>d</sup> Saturdays in the same work week may be worked at straight-time if job is shut down during work week due to inclement weather or similar Act of God, or a situation beyond the employer's control.

GENERAL PREVAILING WAGE DETERMINATION MADE BY  
THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE  
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: OPERATING ENGINEER<sup>#</sup>**

**Determination:**

SC-23-63-2-2024-1

**Issue Date:**

August 22, 2024

**Expiration date of determination:**

June 30, 2025\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

**Localities:**

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

**Wages and total hourly rates (including employer payments):**

Classification <sup>a</sup> (Journey person)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate <sup>b</sup> (1½ x)	Saturday Overtime Hourly Rate <sup>c</sup> (1½ x)	Sunday/Holiday Overtime Hourly Rate (2 x)
Group 1	\$58.40	8	\$92.73	\$121.93	\$121.93	\$151.13
Group 2	\$59.18	8	\$93.51	\$123.10	\$123.10	\$152.69
Group 3	\$59.47	8	\$93.80	\$123.54	\$123.54	\$153.27
Group 4	\$60.96	8	\$95.29	\$125.77	\$125.77	\$156.25
Group 6	\$61.18	8	\$95.51	\$126.10	\$126.10	\$156.69
Group 8	\$61.29	8	\$95.62	\$126.27	\$126.27	\$156.91
Group 10	\$61.41	8	\$95.74	\$126.45	\$126.45	\$157.15
Group 12	\$61.58	8	\$95.91	\$126.70	\$126.70	\$157.49
Group 13	\$61.68	8	\$96.01	\$126.85	\$126.85	\$157.69
Group 14	\$61.71	8	\$96.04	\$126.90	\$126.90	\$157.75
Group 15	\$61.79	8	\$96.12	\$127.02	\$127.02	\$157.91
Group 16	\$61.91	8	\$96.24	\$127.20	\$127.20	\$158.15
Group 17	\$62.08	8	\$96.41	\$127.45	\$127.45	\$158.49
Group 18	\$62.18	8	\$96.51	\$127.60	\$127.60	\$158.69
Group 19	\$62.29	8	\$96.62	\$127.77	\$127.77	\$158.91
Group 20	\$62.41	8	\$96.74	\$127.95	\$127.95	\$159.15
Group 21	\$62.58	8	\$96.91	\$128.20	\$128.20	\$159.49
Group 22	\$62.68	8	\$97.01	\$128.35	\$128.35	\$159.69
Group 23	\$62.79	8	\$97.12	\$128.52	\$128.52	\$159.91
Group 24	\$62.91	8	\$97.24	\$128.70	\$128.70	\$160.15
Group 25	\$63.08	8	\$97.41	\$128.95	\$128.95	\$160.49

**Employer Payments:**

Type of Fund	Amount per Hour
Health and Welfare	\$13.20
Pension <sup>d</sup>	\$15.65
Vacation and Holiday <sup>e</sup>	\$3.95
Training	\$1.10
Other	\$0.43

**Recognized holidays:**

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. 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. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**Travel and/or subsistence payment:**

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY  
THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE  
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: OPERATING ENGINEER (SPECIAL SHIFT) #**

**Determination:**

SC-23-63-2-2024-1

**Issue Date:**

August 22, 2024

**Expiration date of determination:**

June 30, 2025\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

**Localities:**

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

**Wages and total hourly rates (including employer payments):**

Classification <sup>a</sup> (Journey person)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate <sup>b</sup> (1½ x)	Saturday Overtime Hourly Rate <sup>c</sup> (1½ x)	Sunday/Holiday Overtime Hourly Rate (2 x)
Group 1	\$59.40	8	\$93.73	\$123.43	\$123.43	\$153.13
Group 2	\$60.18	8	\$94.51	\$124.60	\$124.60	\$154.69
Group 3	\$60.47	8	\$94.80	\$125.04	\$125.04	\$155.27
Group 4	\$61.96	8	\$96.29	\$127.27	\$127.27	\$158.25
Group 6	\$62.18	8	\$96.51	\$127.60	\$127.60	\$158.69
Group 8	\$62.29	8	\$96.62	\$127.77	\$127.77	\$158.91
Group 10	\$62.41	8	\$96.74	\$127.95	\$127.95	\$159.15
Group 12	\$62.58	8	\$96.91	\$128.20	\$128.20	\$159.49
Group 13	\$62.68	8	\$97.01	\$128.35	\$128.35	\$159.69
Group 14	\$62.71	8	\$97.04	\$128.40	\$128.40	\$159.75
Group 15	\$62.79	8	\$97.12	\$128.52	\$128.52	\$159.91
Group 16	\$62.91	8	\$97.24	\$128.70	\$128.70	\$160.15
Group 17	\$63.08	8	\$97.41	\$128.95	\$128.95	\$160.49
Group 18	\$63.18	8	\$97.51	\$129.10	\$129.10	\$160.69
Group 19	\$63.29	8	\$97.62	\$129.27	\$129.27	\$160.91
Group 20	\$63.41	8	\$97.74	\$129.45	\$129.45	\$161.15
Group 21	\$63.58	8	\$97.91	\$129.70	\$129.70	\$161.49
Group 22	\$63.68	8	\$98.01	\$129.85	\$129.85	\$161.69
Group 23	\$63.79	8	\$98.12	\$130.02	\$130.02	\$161.91
Group 24	\$63.91	8	\$98.24	\$130.20	\$130.20	\$162.15
Group 25	\$64.08	8	\$98.41	\$130.45	\$130.45	\$162.49

**Employer Payments:**

Type of Fund	Amount per Hour
Health and Welfare	\$13.20
Pension <sup>d</sup>	\$15.65
Vacation and Holiday <sup>e</sup>	\$3.95
Training	\$1.10
Other	\$0.43

**Recognized holidays:**

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. 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. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**Travel and/or subsistence payment:**

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY  
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PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: OPERATING ENGINEER (MULTI-SHIFT)#**

**Determination:**

SC-23-63-2-2024-1

**Issue Date:**

August 22, 2024

**Expiration date of determination:**

June 30, 2025\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

**Localities:**

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

**Wages and total hourly rates (including employer payments):**

Classification <sup>a</sup> (Journey person)	Basic Hourly Rate	Hours <sup>f</sup>	Total Hourly Rate	Daily Overtime Hourly Rate <sup>b</sup> (1½ x)	Saturday Overtime Hourly Rate <sup>c</sup> (1½ x)	Sunday/Holiday Overtime Hourly Rate (2 x)
Group 1	\$59.40	8	\$93.73	\$123.43	\$123.43	\$153.13
Group 2	\$60.18	8	\$94.51	\$124.60	\$124.60	\$154.69
Group 3	\$60.47	8	\$94.80	\$125.04	\$125.04	\$155.27
Group 4	\$61.96	8	\$96.29	\$127.27	\$127.27	\$158.25
Group 5	\$62.06	8	\$96.39	\$127.42	\$127.42	\$158.45
Group 6	\$62.18	8	\$96.51	\$127.60	\$127.60	\$158.69
Group 7	\$62.28	8	\$96.61	\$127.75	\$127.75	\$158.89
Group 8	\$62.29	8	\$96.62	\$127.77	\$127.77	\$158.91
Group 9	\$62.39	8	\$96.72	\$127.92	\$127.92	\$159.11
Group 10	\$62.41	8	\$96.74	\$127.95	\$127.95	\$159.15
Group 11	\$62.51	8	\$96.84	\$128.10	\$128.10	\$159.35
Group 12	\$62.58	8	\$96.91	\$128.20	\$128.20	\$159.49
Group 13	\$62.68	8	\$97.01	\$128.35	\$128.35	\$159.69
Group 14	\$62.71	8	\$97.04	\$128.40	\$128.40	\$159.75
Group 15	\$62.79	8	\$97.12	\$128.52	\$128.52	\$159.91
Group 16	\$62.91	8	\$97.24	\$128.70	\$128.70	\$160.15
Group 17	\$63.08	8	\$97.41	\$128.95	\$128.95	\$160.49
Group 18	\$63.18	8	\$97.51	\$129.10	\$129.10	\$160.69
Group 19	\$63.29	8	\$97.62	\$129.27	\$129.27	\$160.91
Group 20	\$63.41	8	\$97.74	\$129.45	\$129.45	\$161.15
Group 21	\$63.58	8	\$97.91	\$129.70	\$129.70	\$161.49
Group 22	\$63.68	8	\$98.01	\$129.85	\$129.85	\$161.69
Group 23	\$63.79	8	\$98.12	\$130.02	\$130.02	\$161.91
Group 24	\$63.91	8	\$98.24	\$130.20	\$130.20	\$162.15



Classification <sup>a</sup> (Journey person)	Basic Hourly Rate	Hours <sup>f</sup>	Total Hourly Rate	Daily Overtime Hourly Rate <sup>b</sup> (1½ x)	Saturday Overtime Hourly Rate <sup>c</sup> (1½ x)	Sunday/Holiday Overtime Hourly Rate (2 x)
Group 25	\$64.08	8	\$98.41	\$130.45	\$130.45	\$162.49

**Employer Payments:**

Type of Fund	Amount per Hour
Health and Welfare	\$13.20
Pension <sup>d</sup>	\$15.65
Vacation and Holiday <sup>e</sup>	\$3.95
Training	\$1.10
Other	\$0.43

**Recognized holidays:**

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. 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. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**Travel and/or subsistence payment:**

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**Classifications:**

**Group 1**

Bargeman  
Brakeman  
Compressor Operator  
Ditchwitch, with seat or similar type equipment  
Elevator Operator - Inside  
Engineer Oiler  
Forklift Operator (includes loed, lull or similar types – under 5 tons)  
Generator Operator  
Generator, Pump or Compressor Plant Operator  
Heavy Duty Repairman Helper  
Inertial Profiler Operator  
Pump Operator  
Signalman  
Switchman

**Group 2**

Asphalt-Rubber Plant Operator (Nurse Tank Operator)  
Coil Tubing Rig Operator  
Concrete Mixer Operator – Skip Type  
Conveyor Operator  
Fireman  
Forklift Operator (includes loed, lull or similar types – over 5 tons)  
Hydrostatic Pump Operator  
Oiler Crusher (Asphalt or Concrete Plant)  
Petromat Laydown Machine  
PJU Side Dump Jack  
Rotary Drill Helper (Oilfield)  
Screening and Conveyor Machine Operator (or similar types)  
Skiploader (Wheel type up to  $\frac{3}{4}$  yd. without attachment)  
Tar Pot Fireman  
Temporary Heating Plant Operator  
Trenching Machine Oiler

**Group 3**

Asphalt Rubber Blend Operator  
Bobcat or similar type (Skid Steer, with all attachments)  
Equipment Greaser (rack)  
Ford Ferguson (with dragtype attachments)  
Helicopter Radioman (ground)

Stationary Pipe Wrapping and Cleaning Machine Operator

**Group 4**

Asphalt Plant Fireman  
Backhoe Operator (mini-max or similar type)  
Boring Machine Operator  
Boring System Electronic Tracking Locator  
Boxman or Mixerman (asphalt or concrete)  
Chip Spreading Machine Operator  
Concrete Cleaning Decontamination Machine Operator  
Concrete Pump Operator (small portable)  
Drilling Machine Operator, Small Auger types (Texoma Super Economatic, or similar types – Hughes 100 or 200, or similar types – drilling depth of 30 maximum)  
Equipment Greaser (grease truck)  
Excavator Track/Rubber-Tired-with all attachments (Operating weight under 21,000 lbs)  
Guard Rail Post Driver Operator  
Highline Cableway Signalman  
Hydra-Hammer-Aero Stomper  
Hydraulic Casing Oscillator Operator – drilling depth of 30' maximum  
Micro Tunneling Operator (above ground tunnel)  
Power Concrete Curing Machine Operator  
Power Concrete Saw Operator  
Power – Driver Jumbo Form Setter Operator  
Power Sweeper Operator  
Rock Wheel Saw/Trencher  
Roller Operator (compacting)  
Screed Operator (asphalt or concrete)  
Trenching Machine Operator (up to 6 ft.)  
Vacuum or Muck Truck

**Group 5 (for multi-shift rate, see Pages 5 and 6)**

Equipment Greaser (Grease Truck/Multi-Shift)

**Group 6**

Articulating Material Hauler  
Asphalt Plant Engineer  
Batch Plant Operator  
Bit Sharpener  
Concrete Joint Machine Operator (canal and similar type)  
Concrete Placer Operator  
Concrete Planer Operator

Dandy Digger  
Deck Engine Operator  
Deck Engineer  
Derrickman (oilfield type)  
Drilling Machine Operator, Bucket or Auger types  
(Calweld 100 bucker or similar types – Watson  
1000 auger or similar types – Texoma 330, 500 or  
600 auger or similar types – drilling depth of 45'  
maximum)  
Drilling Machine Operator (including water wells)  
Forced Feed Loader  
Hydraulic Casing Oscillator Operator – drilling depth  
of 45' maximum  
Hydro Seeder Machine Operator (straw, pulp or seed)  
Jackson Track Maintainer, or similar type  
Kalamazoo Switch Tamper, or similar type  
Machine Tool Operator  
Maginnis Internal Full Slab Vibrator  
Mechanical Berm, Curb or Gutter (concrete or  
asphalt)  
Mechanical Finisher Operator (concrete, Clary-  
Johnson-Bidwell or similar)  
Micro Tunnel System Operator (below ground)  
Pavement Breaker Operator  
Railcar Mover  
Road Oil Mixing Machine Operator  
Roller Operator (asphalt or finish)  
Rubber-Tired Earthmoving Equipment (single  
engine, up to and including 25 yds. struck)  
Self-Propelled Tar Pipelining Machine Operator  
Skiploader Operator (crawler and wheel type, over  
 $\frac{3}{4}$  yds. and up to and including  $1\frac{1}{2}$  yds.)  
Slip Form Pump Operator (power driven hydraulic  
lifting device for concrete forms)  
Tractor Operator – Bulldozer, Tamper-Scraper  
(single engine, up to 100 H.P. flyweel and similar  
types, up to and including D-5 and similar types)  
Tugger Hoist Operator (1 drum)  
Ultra High Pressure Waterjet Cutting Tool System  
Operator  
Vacuum Blasting Machine Operator  
Volumetric Mixer Operator  
Welder - General

**Group 7 (for multi-shift rate, see Pages 5 and 6)**

Welder - General (Multi-Shift)

**Group 8**

Asphalt or Concrete Spreading Operator (tamping or  
finishing)  
Asphalt Paving Machine Operator (barber greene or  
similar type, one (1) Screedman)  
Asphalt-Rubber Distributor Operator  
Backhoe Operator (up to and including  $\frac{3}{4}$  yds.)  
small ford, case or similar types  
Backhoe Operator (over  $\frac{3}{4}$  yd. and up to 5 cu. yds.  
M.R.C.)  
Barrier Rail Mover (BTM Series 200 or similar types)  
Cast in Place Pipe Laying Machine Operator  
Cold Foamed Asphalt Recycler  
Combination Mixer and Compressor Operator  
(gunite work)  
Compactor Operator – Self Propelled  
Concrete Mixer Operator – Paving  
Crushing Plant Operator  
Drill Doctor  
Drilling Machine Operator, Bucket or Auger types  
(Calweld 150 bucker or similar types – Watson  
1500, 2000, 2500 auger or similar types –  
Texoma 700, 800 auger or similar types – drilling  
depth of 60' maximum)  
Elevating Grader Operator  
Excavator Track/Rubber-Tired with all attachments  
(Operating Weight 21,000 lbs – 100,000 lbs)  
Global Positioning System/GPS (or Technician)  
Grade Checker  
Gradall Operator  
Grouting Machine Operator  
Heavy Duty Repairman/Pump Installer  
Heavy Equipment Robotics Operator  
Hydraulic Casing Oscillator Operator – drilling depth  
of 60' maximum  
Hydraulic Operated Grout Plant (excludes hand  
loading)  
Kalamazoo Ballast Regulator or similar type  
Klemm Drill Operator or similar types  
Kolman Belt Loader and similar type  
Le Tourneau Blob Compactor or similar type  
Lo Drill  
Loader Operator (Athey, Euclid, Sierra and similar  
types)  
Master Environmental Maintenance Mechanic  
Mobark Chipper or similar types  
Ozzie Padder or similar types  
P.C. 490 Slot Saw

Pneumatic Concrete Placing Machine Operator  
(Hackley-Presswell or similar type)  
Prentice 721E Hydro-Ax  
Pumpcrete Gun Operator  
Rock Drill or Similar Types (see Miscellaneous  
Provision #4 for additional information regarding  
this classification)  
Rotary Drill Operator (excluding caison type)  
Rubber-Tired Earth Moving Equipment Operator  
(single engine, caterpillar, euclid, atthey wagon,  
and similar types with any and all attachments  
over 25 yds. and up to and including 50 cu yds.  
struck)  
Rubber-Tired Earth Moving Equipment Operator  
(multiple engine – up to and including 25 yds.  
struck)  
Rubber-Tired Scraper Operator (self-loading paddle  
wheel type – John Deere, 1040 and similar single  
unit)  
Self-Propelled Curb and Gutter Machine Operator  
Shuttle Buggy  
Skiploader Operator (crawler and wheel type over 1  
½ yds. up to and including 6 ½ yds.)  
Soil Remediation Plant Operator (CMI, Envirotech or  
Similar)  
Soil Stabilizer and Reclaimer (WR-2400)  
Somero SXP Laser Screed  
Speed Swing Operator  
Surface Heaters and Planer Operator  
Tractor Compressor Drill Combination Operator  
Tractor Operator (any type larger than D-5 – 100  
flyweel H.P. and over, or similar – bulldozer,  
tamper, scraper and push tractor, single engine)  
Tractor Operator (boom attachments)  
Traveling Pipe Wrapping, Cleaning and Bending  
Machine Operator)  
Trenching Machine Operator (over 6 ft. depth  
capacity, manufacturer's rating)  
Trenching Machine with Road Miner Attachment  
(over 6ft. depth capacity, manufacturer's rating –  
Oiler or Journeyman Trainee required)  
Ultra High Pressure Waterjet Cutting Tool System  
Mechanic  
Water Pull (compaction)

**Group 9 (for multi-shift rate, see Pages 5 and 6)**  
Heavy Duty Repairman (Multi-Shift)

**Group 10**

Backhoe Operator (over 5 cu. yds. M.R.C.)  
Drilling Machine Operator, Bucket or Auger types  
(Calweld 200 B bucket or similar types – Watson  
3000 or 5000 auger or similar types – Texoma  
900 auger or similar types – drilling depth of 105'  
maximum)  
Dual Drum Mixer  
Dynamic Compactor LDC350 or similar types  
Heavy Duty Repairman-Welder combination  
Hydraulic Casing Oscillator Operator – drilling depth  
of 105' maximum  
Monorail Locomotive Operator (diesel, gas or  
electric)  
Motor Patrol – Blade Operator (single engine)  
Multiple Engine Tractor Operator (euclid and similar  
type – except quad 9 cat.)  
Pneumatic Pipe Ramming Tool and similar types  
Pre-stressed Wrapping Machine Operator (2  
Operators required)  
Rubber – Tired Earth Moving Equipment Operator  
(single engine, over 50 yds. struck)  
Rubber – Tired Earth Moving Equipment Operator  
(multiple engine, euclid caterpillar and similar –  
over 25 yds. and up to 50 yds. struck)  
Tower Crane Repairman  
Tractor Loader Operator (crawler and wheel-type  
over 6 ½ yds.)  
Unmanned Aircraft Systems (UAS Drones) Operator  
(when used in conjunction with hoisting and  
placing materials)  
Welder – Certified  
Woods Mixer Operator (and similar pugmill  
equipment)

**Group 11 (for multi-shift rate, see Pages 5 and 6)**

Heavy Duty Repairman – Welder Combination  
(Multi-Shift)  
Welder – Certified (Multi-Shift)

**Group 12**

Auto Grader Operator  
Automatic Slip Form Operator  
Backhoe Operator (over 7 cu. yds. M.R.C.)  
Drilling Machine Operator, Bucket or Auger types  
(Calweld, auger 200 CA or similar types –  
Watson, auger 6000 or similar types – hughes  
super duty, auger 200 or similar types – drilling  
depth of 175' maximum)

Excavator Track/Rubber Tired- with all attachments  
(Operating Weight 100,000 lbs. – 200,000 lbs.)  
Hoe Ram or similar with compressor  
Hydraulic Casing Oscillator Operator – drilling depth  
of 175' maximum  
Mass Excavator Operator – less than 750 cu. yds.  
Mechanical Finishing Machine Operator  
Mobile Form Traveler Operator  
Motor Patrol Operator (multi-engine)  
Pipe Mobile Machine Operator  
Rubber-Tired Earth Moving Equipment Operator  
(multiple engine, euclid, caterpillar and similar  
type, over 50 cu. yds. struck)  
Rubber-Tired Self-Loading Scraper Operator  
(paddle-wheel-auger type self-loading – (two (2)  
or more units)

### **Group 13**

Rubber-Tired Earth Moving Equipment Operator,  
Operating Equipment with the Push-Pull System  
(single engine, up to and including 25 yds. struck)

### **Group 14**

Canal Liner Operator  
Canal Trimmer Operator  
Drilling Machine Operator, Bucket or Auger types  
(Calweld, auger 200 CA or similar types –  
watson, auger 6000 or similar types – hughes  
super duty, auger 200 or similar types – drilling  
depth of 300' maximum)  
Remote Controlled Earth Moving Operator (\$1.00  
per hour additional to base rate)  
Wheel Excavator Operator (over 750 cu. yds. per  
hour)

### **Group 15**

Rubber-Tired Earth Moving Equipment Operator,  
Operating Equipment with the Push-Pull System  
(single engine, caterpillar, euclid, atthey wagon,  
and similar types with any and all attachments  
over 25 and up to and including 50 cu. yds.  
struck)  
Rubber-Tired Earth Moving Equipment Operator,  
Operating Equipment with the Push-Pull System  
(multiple engine - up to and including 25 yds.  
struck)

### **Group 16**

Excavator Track/Rubber Tired – with all attachments  
(Operating Weight exceeding 200,000 lbs.)

Rubber-Tired Earth Moving Equipment Operator,  
Operating Equipment with the Push-Pull System  
(single engine, over 50 yds. struck)  
Rubber-Tired Earth Moving Equipment Operator,  
Operating Equipment with the Push-Pull System  
(multiple engine, euclid, caterpillar, and similar,  
over 25 yds. and up to 50 yds. struck)

### **Group 17**

Rubber-Tired Earth Moving Equipment Operator,  
Operating Equipment with the Push-Pull System  
(multiple engine, euclid, caterpillar, and similar  
type, over 50 cu. yds. struck)  
Tandem Tractor Operator (operating crawler type  
tractors in tandem – Quad 9 and similar type)

### **Group 18**

Rubber-Tired Earth Moving Equipment Operator,  
Operating in Tandem (scrapers, belly dumps, and  
similar types in any combination, excluding  
compaction units - single engine, up to and  
including 25 yds. struck)

### **Group 19**

Rotex Concrete Belt Operator  
Rubber-Tired Earth Moving Equipment Operator,  
Operating in Tandem (scrapers, belly dumps, and  
similar types in any combination, excluding  
compaction units - single engine, caterpillar,  
euclid, atthey wagon, and similar types with any  
and all attachments over 25 yds. and up to and  
including 50 cu. yds. struck)  
Rubber-Tired Earth Moving Equipment Operator,  
Operating in Tandem (scrapers, belly dumps, and  
similar types in any combination, excluding  
compaction units - multiple engines, up to and  
including 25 yds. struck)

### **Group 20**

Rubber-Tired Earth Moving Equipment Operator,  
Operating in Tandem (scrapers, belly dumps, and  
similar types in any combination, excluding  
compaction units - single engine, over 50 yds.  
struck)  
Rubber-Tired Earth Moving Equipment Operator,  
Operating in Tandem (scrapers, belly dumps, and  
similar types in any combination, excluding  
compaction units - multiple engine, euclid,  
caterpillar and similar, over 25 yds. and up to 50  
yds. struck)

**Group 21**

Rubber-Tired Earth Moving Equipment Operator, Operating in Tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, euclid, caterpillar and similar type, over 50 cu. yds. struck)

**Group 22**

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (single engine, up to and including 25 yds. struck)

**Group 23**

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (single engine, caterpillar, euclid, atthey wagon, and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck)

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (multiple engine, up to and including 25 yds. struck)

**Group 24**

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (single engine, over 50 yds. Struck)

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (multiple engine, euclid, caterpillar and similar, over 25 yds. and up to 50 yds. struck)

**Group 25**

Concrete Pump Operator-Truck Mounted

Pedestal Concrete Pump Operator

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (multiple engine, euclid, caterpillar and similar over 50 cu. yds struck)

**MISCELLANEOUS PROVISIONS:**

1. Operators on hoists with three drums shall receive fifty cents (50¢) per hour additional pay to the regular rate of pay. The additional pay shall be added to the regular rate and become the base rate for the entire shift.
2. All heavy duty repairman and heavy duty combination shall receive one dollar (\$1.00) per hour tool allowance in addition to their regular rate of pay and this shall become their base rate of pay.
3. Employees required to suit up and work in a hazardous material environment, shall receive Two Dollars (\$2.00) per hour in addition to their regular rate of pay, and that rate shall become the basic hourly rate of pay.
4. A review of rock drilling is currently pending. The minimum acceptable rate of pay for this classification or type of work on public works projects is Laborer and Related Classifications/Group 5 (Driller) as published in the Director's General Prevailing Wage Determinations. However, the published rate for the craft/classification of Operating Engineer/Group 8 (Rock Drill or Similar Types) may be used by contractors to perform rock drilling on public works projects.

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<sup>#</sup> Indicates an apprenticeable craft. The current apprentice wage rates are available on the [Prevailing Wage Apprentice Determinations Website](http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp) (<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>).

<sup>a</sup> For classifications within each group, see Pages 7 through 11.

<sup>b</sup> Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

<sup>c</sup> Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

<sup>d</sup> Includes an amount for Annuity.

<sup>e</sup> Includes an amount withheld for supplemental dues.

<sup>f</sup> The Third Shift shall work 6.5 hours, exclusive of meal period, for which 8 hours straight-time shall be paid at the non-shift rate, Monday through Friday.

GENERAL PREVAILING WAGE DETERMINATION MADE BY  
THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE  
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #TEAMSTER (APPLIES ONLY TO WORK ON THE CONSTRUCTION SITE)**

**Determination:**

SC-23-261-2-2024-1

**Issue Date:**

August 22, 2024

**Expiration date of determination:**

June 30, 2025\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

**Localities:**

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

**Wages and total hourly rates (including employer payments):**

Classification <sup>a</sup> (Journey person)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate <sup>b</sup> (1½ x)	Saturday Overtime Hourly Rate <sup>b</sup> (1½ x)	Sunday/Holiday Overtime Hourly Rate (2 x)
Group I	\$39.59	8	\$75.18	\$94.975	\$94.975	\$114.77
Group II	\$39.74	8	\$75.33	\$95.20	\$95.20	\$115.07
Group III	\$39.87	8	\$75.46	\$95.395	\$95.395	\$115.33
Group IV	\$40.06	8	\$75.65	\$95.68	\$95.68	\$115.71
Group V	\$40.09	8	\$75.68	\$95.725	\$95.725	\$115.77
Group VI	\$40.12	8	\$75.71	\$95.77	\$95.77	\$115.83
Group VII	\$40.37	8	\$75.96	\$96.145	\$96.145	\$116.33
Group VIII	\$40.62	8	\$76.21	\$96.52	\$96.52	\$116.83
Group IX	\$40.82	8	\$76.41	\$96.82	\$96.82	\$117.23
Group X	\$41.12	8	\$76.71	\$97.27	\$97.27	\$117.83
Group XI	\$41.62	8	\$77.21	\$98.02	\$98.02	\$118.83

**Employer Payments:**

Type of Fund	Amount per Hour
Health and Welfare	\$20.37
Pension	\$9.00
Vacation and Holiday <sup>c</sup>	\$3.60
Training	\$2.02
Other	\$0.60

**Wages and total hourly rates (including employer payments):**

Classification <sup>d</sup> (Subjourneyman)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate <sup>b</sup> (1½ x)	Saturday Overtime Hourly Rate <sup>b</sup> (1½x)	Sunday/Holiday Overtime Hourly Rate (2 x)
0-2000 hours	\$25.80	8	\$60.24	\$73.14	\$73.14	\$86.04
2001-4000 hours	\$27.80	8	\$62.49	\$76.39	\$76.39	\$90.29
4001-6000 hours	\$29.80	8	\$64.74	\$79.64	\$79.64	\$94.54

Over 6000 hours and thereafter at journeyman rates.

**Employer Payments:**

Type of Fund	Amount per Hour
Health and Welfare	\$20.37
Pension	\$9.00
Vacation and Holiday <sup>c</sup>	\$2.45 (\$2.70 for 2001-4000 hours; \$2.95 for 4001-6000 hours)
Training	\$2.02
Other	\$0.60

**Recognized holidays:**

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. 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. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**Travel and/or subsistence payment:**

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.



GENERAL PREVAILING WAGE DETERMINATION MADE BY  
THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE  
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #TEAMSTER (SPECIAL SHIFT)**  
**(APPLIES ONLY TO WORK ON THE CONSTRUCTION SITE)**

**Determination:**

SC-23-261-2-2024-1

**Issue Date:**

August 22, 2024

**Expiration date of determination:**

June 30, 2025\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

**Localities:**

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

**Wages and total hourly rates (including employer payments):**

Classification <sup>a</sup> (Journey person)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate <sup>b</sup> (1½ x)	Saturday Overtime Hourly Rate <sup>b</sup> (1½ x)	Sunday/Holiday Overtime Hourly Rate (2 x)
Group I	\$40.59	8	\$76.18	\$96.475	\$96.475	\$116.77
Group II	\$40.74	8	\$76.33	\$96.70	\$96.70	\$117.07
Group III	\$40.87	8	\$76.46	\$96.895	\$96.895	\$117.33
Group IV	\$41.06	8	\$76.65	\$97.18	\$97.18	\$117.71
Group V	\$41.09	8	\$76.68	\$97.225	\$97.225	\$117.77
Group VI	\$41.12	8	\$76.71	\$97.27	\$97.27	\$117.83
Group VII	\$41.37	8	\$76.96	\$97.645	\$97.645	\$118.33
Group VIII	\$41.62	8	\$77.21	\$98.02	\$98.02	\$118.83
Group IX	\$41.82	8	\$77.41	\$98.32	\$98.32	\$119.23
Group X	\$42.12	8	\$77.71	\$98.77	\$98.77	\$119.83
Group XI	\$42.62	8	\$78.21	\$99.52	\$99.52	\$120.83

**Employer Payments:**

Type of Fund	Amount per Hour
Health and Welfare	\$20.37
Pension	\$9.00
Vacation and Holiday <sup>c</sup>	\$3.60
Training	\$2.02
Other	\$0.60

**Wages and total hourly rates (including employer payments):**

Classification <sup>d</sup> (Subjourneyman)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate <sup>b</sup> (1½ x)	Saturday Overtime Hourly Rate <sup>b</sup> (1½x)	Sunday/Holiday Overtime Hourly Rate (2 x)
0-2000 hours	\$25.80	8	\$60.24	\$73.14	\$73.14	\$86.04
2001-4000 hours	\$27.80	8	\$62.49	\$76.39	\$76.39	\$90.29
4001-6000 hours	\$29.80	8	\$64.74	\$79.64	\$79.64	\$94.54

Over 6000 hours and thereafter at journeyman rates.

**Employer Payments:**

Type of Fund	Amount per Hour
Health and Welfare	\$20.37
Pension	\$9.00
Vacation and Holiday <sup>c</sup>	\$2.45 (\$2.70 for 2001-4000 hours; \$2.95 for 4001-6000 hours)
Training	\$2.02
Other	\$0.60

**Recognized holidays:**

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. 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. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**Travel and/or subsistence payment:**

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GENERAL PREVAILING WAGE DETERMINATION MADE BY  
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PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #TEAMSTER (SECOND SHIFT)**  
**(APPLIES ONLY TO WORK ON THE CONSTRUCTION SITE)**

**Determination:**

SC-23-261-2-2024-1

**Issue Date:**

August 22, 2024

**Expiration date of determination:**

June 30, 2025\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

**Localities:**

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**Wages and total hourly rates (including employer payments):**

Classification <sup>a</sup> (Journey person)	Basic Hourly Rate	Hours <sup>e</sup>	Total Hourly Rate	Daily Overtime Hourly Rate <sup>b</sup> (1½ x)	Saturday Overtime Hourly Rate <sup>b</sup> (1½ x)	Sunday/Holiday Overtime Hourly Rate (2 x)
Group I	\$41.59	8	\$77.18	\$97.975	\$97.975	\$118.77
Group II	\$41.74	8	\$77.33	\$98.20	\$98.20	\$119.07
Group III	\$41.87	8	\$77.46	\$98.395	\$98.395	\$119.33
Group IV	\$42.06	8	\$77.65	\$98.68	\$98.68	\$119.71
Group V	\$42.09	8	\$77.68	\$98.725	\$98.725	\$119.77
Group VI	\$42.12	8	\$77.71	\$98.77	\$98.77	\$119.83
Group VII	\$42.37	8	\$77.96	\$99.145	\$99.145	\$120.33
Group VIII	\$42.62	8	\$78.21	\$99.52	\$99.52	\$120.83
Group IX	\$42.82	8	\$78.41	\$99.82	\$99.82	\$121.23
Group X	\$43.12	8	\$78.71	\$100.27	\$100.27	\$121.83
Group XI	\$43.62	8	\$79.21	\$101.02	\$101.02	\$122.83

**Employer Payments:**

Type of Fund	Amount per Hour
Health and Welfare	\$20.37
Pension	\$9.00
Vacation and Holiday <sup>c</sup>	\$3.60
Training	\$2.02
Other	\$0.60

**Wages and total hourly rates (including employer payments):**

Classification <sup>d</sup> (Subjourneyman)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate <sup>b</sup> (1½ x)	Saturday Overtime Hourly Rate <sup>b</sup> (1½x)	Sunday/Holiday Overtime Hourly Rate (2 x)
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**Employer Payments:**

Type of Fund	Amount per Hour
Health and Welfare	\$20.37
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Training	\$2.02
Other	\$0.60

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## Classifications:

### Group I

Warehouseman and Teamster

Side Dump Trucks

Flow Boy Dump Trucks

### Group II

Driver of Vehicle or Combination of Vehicles - 2 axles  
Traffic Control Pilot Car, excluding moving heavy  
equipment permit load  
Truck Mounted Power Broom

### Group VII

A Frame, Swedish Crane or Similar  
Forklift Driver  
Ross Carrier Driver

### Group III

Driver of Vehicle or Combination of Vehicles - 3 axles  
Bootman  
Cement Mason Distribution Truck  
Fuel Truck Driver  
Water Truck - 2 axles  
Dump Truck of less than 16 yards water level  
Erosion Control Driver

### Group VIII

Dump Truck of 25 yds to 49 yards water level  
Truck Repairman  
Water Pull Single Engine  
Welder

### Group IV

Driver of Transit Mix Truck-Under 3 yds  
Dumcrete Truck Less than 6½ yards water level  
Truck Repairman Helper

### Group IX

Truck Repairman Welder  
Low Bed Driver, 9 axles or over

### Group V

Water Truck 3 or more axles  
Warehouseman Clerk  
Slurry Truck Driver

### Group X

Working Truck Driver  
Truck Greaser and Tireman - \$0.50 additional for  
Tireman  
Pipeline and Utility Working Truck Driver, including  
Winch Truck and Plastic Fusion, limited to Pipeline  
and Utility Work  
Dump Truck and Articulating - 50 yards or more water  
level  
Water Pull Single Engine with attachment

### Group VI

Driver of Transit Mix Truck - 3 yds or more  
Dumcrete Truck 6½ yds water level and over  
Driver of Vehicle or Combination of Vehicles - 4 or  
more axles  
Driver of Oil Spreader Truck  
Dump Truck 16 yds to 25 yds water level

### Group XI

Water Pull Twin Engine  
Water Pull Twin Engine with attachments  
Winch Truck Driver - \$0.25 additional when operating  
a Winch or similar special attachment

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<sup>#</sup> Indicates an apprenticeable craft. The current apprentice wage rates are available on the [Prevailing Wage Apprentice Determinations Website](http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp) (<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>).

<sup>a</sup> For classifications within each group, see Page 7.

<sup>b</sup> Rate applies to the first 4 daily overtime hours on weekdays and the first 12 hours on Saturday. All other overtime is paid at the Sunday/Holiday double-time rate.

<sup>c</sup> Includes an amount for Supplemental Dues.

<sup>d</sup> Subjourneymen may be employed at a ratio of one subjourneyman for every five journeymen.

<sup>e</sup> The third shift shall work 6.5 hours, exclusive of meal period, for which 8-hours straight time shall be paid at the non-shift rate, Monday through Friday.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**Craft: DRIVER (ON/OFF-HAULING TO/FROM CONSTRUCTION SITE)**

**Determination:**

C-MT-830-261-11-2024-1

**Issue Date:**

February 22, 2024

**Expiration date of determination:**

March 31, 2024\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

**Localities:**

All localities within Riverside County

**Wages and Employer Payments:**

Classification	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)	Sunday/ Holiday Overtime Hourly Rate (1 ½ X)
Driver: Mixer Truck	\$16.00	\$6.33 <sup>a</sup>	\$1.80	\$1.04 <sup>b</sup>	\$0.00	\$0.00	8.0	\$25.17	\$33.17 <sup>b</sup>	\$33.17

**Recognized holidays:**

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. 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. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**Travel and/or subsistence payment:**

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

\* There is no predetermined increase applicable to this determination.

a The contribution applies to all hours until \$1097.30 is paid for the month.

b \$1.33 after 4 years of service. \$1.61 after 14 years of service. \$1.90 after 24 years of service.

c Rate applies to work in excess of eight (8) hours daily and forty (40) hours weekly.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**Craft: Cement Mason<sup>#</sup>**

**Determination:**

SC-23-203-2-2024-1

**Issue Date:**

August 22, 2024

**Expiration date of determination:**

June 30, 2025\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

**Localities:**

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura Counties.

**Wages and Employer Payments:**

Classification (Journeyman)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>a</sup>	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X) <sup>b</sup>	Saturday Overtime Hourly Rate (1 ½ X) <sup>b</sup> <sub>c</sub>	Sunday/ Holiday Overtime Hourly Rate (2 X)
Cement Mason, Curb and Gutter Machine Operator; Clary and Similar Type of Screed Operator (Cement only); Grinding Machine Operator (all types); Jackson Vibratory, Texas Screed and Similar Type Screed Operator; Scoring Machine Operator	\$45.50	\$8.83	\$10.85	\$7.47	\$0.64	\$0.23	8.0	\$73.52	\$96.27	\$96.27	\$119.02
Magnesite, magnesite-terrazzo and mastic composition, Epoxy, Urethanes and exotic coatings, Dex-O-Tex	\$45.62	\$8.83	\$10.85	\$7.47	\$0.64	\$0.23	8.0	\$73.64	\$96.45	\$96.45	\$119.26
Floating and Troweling Machine Operator	\$45.75	\$8.83	\$10.85	\$7.47	\$0.64	\$0.23	8.0	\$73.77	\$96.645	\$96.645	\$119.52



**Recognized holidays:**

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. 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. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**Travel and/or subsistence payment:**

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

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# Indicates an apprenticeable craft. The current apprentice wage rates are available on the [Prevailing Wage Apprentice Determinations Website](http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp) (<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>).

<sup>a</sup> Includes an amount for supplemental dues.

<sup>b</sup> Rate applies to the first 4 daily overtime hours and the first 12 hours worked on Saturday. All other time is paid at the double time (2X) rate.

<sup>c</sup> Saturday in the same work week may be worked at straight-time rate, up to 8 hours on Saturday or when the employee has worked a total of 40 hours in the work week, if it is not reasonably possible for any individual employee on a particular job site to complete 40 hours of work on a 8 hour day, Monday through Friday, due to inclement weather or similar act of God or a situation beyond the control of the contractor.

## **PREDETERMINED INCREASE**

### **CRAFT:**

Parking and Highway Improvement (Striping, Slurry and Seal Coat Operations-Laborer)

### **DETERMINATIONS:**

SC-23-102-6-2024-1

### **LOCALITIES:**

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara and Ventura Counties.

This predetermined increase for the above named craft applies only to the current determination for work being performed on public works projects with bid advertisement dates on or after September 1, 2024, until this determination is superseded by a new determination or a predetermined increase modification notice becomes effective.

When referencing our prevailing wage determinations, please note that if the prevailing wage rate determination which was in effect on the bid advertisement date of a project, has a single asterisk (\*) after the expiration date, the rate will be good for the life of the project. However, if a prevailing wage rate determination has double asterisks (\*\*) after the expiration date, the rate must be updated on the following date to reflect the predetermined rate change(s).

### **PARKING AND HIGHWAY IMPROVEMENT (STRIPING, SLURRY AND SEAL COAT OPERATIONS-LABORER)**

Determination SC-23-102-6-2024-1 is currently in effect and expires on June 30, 2025\*\*.

Effective July 1, 2025, there will be an increase of \$3.45 to be allocated to wages and/or fringes.

There will be no further increases applicable to this determination.

Issued 8/22/2024, Effective 9/1/2024 until superseded.

This page will be updated when wage rate breakdown becomes available.

Last Updated: September 1, 2024

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**Craft: Parking and Highway Improvement (Striping, Slurry and Seal Coat Operations-Laborer)#**

**Determination:**

SC-23-102-6-2024-1

**Issue Date:**

August 22, 2024

**Expiration date of determination:**

June 30, 2025\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**Localities:**

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara and Ventura Counties.

**Wages and Employer Payments:**

Classification <sup>a</sup> (Journey person)	Basic Hourly Rate	Health and Welfare	Pension	Vacation/ Holiday <sup>b</sup>	Training	Other	Hours <sup>c</sup>	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)	6 <sup>th</sup> & 7 <sup>th</sup> Day Overtime Hourly Rate <sup>d</sup> (1½ x)	Holiday Overtime Hourly Rate (2 X)
Group 1	\$46.65	\$9.25	\$9.02	\$5.26	\$1.47	\$0.56	8.0	\$72.21	\$95.535	\$95.535	\$118.86
Group 2	\$47.95	\$9.25	\$9.02	\$5.26	\$1.47	\$0.56	8.0	\$73.51	\$97.485	\$97.485	\$121.46
Group 3	\$49.96	\$9.25	\$9.02	\$5.26	\$1.47	\$0.56	8.0	\$75.52	\$100.500	\$100.500	\$125.48
Group 4	\$51.70	\$9.25	\$9.02	\$5.26	\$1.47	\$0.56	8.0	\$77.26	\$103.110	\$103.110	\$128.96

**Recognized holidays:**

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. 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. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**Travel and/or subsistence payment:**

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**CLASSIFICATION GROUPS:**

<b><u>Group 1</u></b> Protective coating, Pavement sealing (repairs and filling of cracks by any method to parking lots, game courts and playgrounds, and tracks, whether indoor or outdoor) Truck Mounted Attenuator Automatous Truck Mounted Attenuator Installation of carstops Traffic Control Person & Serviceman; including work of installing and protecting utility covers, traffic delineating devices, posting of no parking and notifications for public convenience Asphalt Repair Equipment Repair Technician Truncated Dome Assitant Decorative Asphalt Surfacing Applicator Assistant	<b><u>Group 2</u></b> Traffic Surface Abrasive Blaster Pot Tender Traffic Control Person/Certified Traffic Control Person Repairing and filling of cracks and surface cleaning on streets, highways, and airports by any means, and other work not directly connected with the application of slurry seal Slurry Seal Squeegeeman (finisher) Bob Cat/Skid Steer Seal Roller Forklift	Slurry Seal Applicator Operator (Line Driver- including self-contained distribution units, aggregate spreader truck) Shuttleman (loader/slurry machine operations) operation of all related machinery and equipment; handling of related materials Truncated Dome Technician Decorative Asphalt Surfacing Applicator
	<b><u>Group 3</u></b> Traffic Delineating Device Applicator Traffic Protective System Installer Pavement Marking Applicator	<b><u>Group 4</u></b> Traffic Striping Applicator Slurry Seal Mixer Operator Power Broom Sweeper (operation of all related trucks, machinery and equipment; Handling of related materials)

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the [Prevailing Wage Apprentice Determinations Website](http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp) (<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>).

<sup>a</sup> For classifications within each group, see Page 2.

<sup>b</sup> Includes an amount per hour worked for Supplemental Dues.

<sup>c</sup> Straight-time hours: 8 consecutive hours per day. 40 hours over 5 consecutive days, Monday through Sunday shall constitute a week’s work at straight time.

<sup>d</sup> The sixth consecutive day in the same work week may be worked at straight-time if job is shut down during work week due to inclement weather.

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**END OF SPECIAL PROVISIONS**

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### **Item C-100 Contractor Quality Control Program (CQCP)**

**100-1 General.** Quality is more than test results. Quality is the combination of proper materials, testing, workmanship, equipment, inspection, and documentation of the project. Establishing and maintaining a culture of quality is key to achieving a quality project. The Contractor shall establish, provide, and maintain an effective Contractor Quality Control Program (CQCP) that details the methods and procedures that will be taken to assure that all materials and completed construction required by this contract conform to contract plans, technical specifications and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors. Although guidelines are established and certain minimum requirements are specified here and elsewhere in the contract technical specifications, the Contractor shall assume full responsibility for accomplishing the stated purpose.

The Contractor shall establish a CQCP that will:

- a. Provide qualified personnel to develop and implement the CQCP.
- b. Provide for the production of acceptable quality materials.
- c. Provide sufficient information to assure that the specification requirements can be met.
- d. Document the CQCP process.

The Contractor shall not begin any construction or production of materials to be incorporated into the completed work until the CQCP has been reviewed and approved by the Resident Project Representative (RPR). No partial payment will be made for materials subject to specific quality control (QC) requirements until the CQCP has been reviewed and approved.

The QC requirements contained in this section and elsewhere in the contract technical specifications are in addition to and separate from the quality assurance (QA) testing requirements. QA testing requirements are the responsibility of the RPR or Contractor as specified in the specifications.

A Quality Control (QC)/Quality Assurance (QA) workshop with the Engineer, Resident Project Representative (RPR), Contractor, subcontractors, testing laboratories, and Owner's representative must be held prior to start of construction. The QC/QA workshop will be facilitated by the Contractor. The Contractor shall coordinate with the Airport and the RPR on time and location of the QC/QA workshop. Items to be addressed, at a minimum, will include:

- a. Review of the CQCP including submittals, QC Testing, Action & Suspension Limits for Production, Corrective Action Plans, Distribution of QC reports, and Control Charts.
- b. Discussion of the QA program.
- c. Discussion of the QC and QA Organization and authority including coordination and information exchange between QC and QA.
- d. Establish regular meetings to discuss control of materials, methods and testing.
- e. Establishment of the overall QC culture.

#### **100-2 Description of program.**

**a. General description.** The Contractor shall establish a CQCP to perform QC inspection and testing of all items of work required by the technical specifications, including those performed by subcontractors. The CQCP shall ensure conformance to applicable specifications and plans with respect to materials, off-

site fabrication, workmanship, construction, finish, and functional performance. The CQCP shall be effective for control of all construction work performed under this Contract and shall specifically include surveillance and tests required by the technical specifications, in addition to other requirements of this section and any other activities deemed necessary by the Contractor to establish an effective level of QC.

**b. Contractor Quality Control Program (CQCP).** The Contractor shall describe the CQCP in a written document that shall be reviewed and approved by the RPR prior to the start of any production, construction, or off-site fabrication. The written CQCP shall be submitted to the RPR for review and approval at least 10 calendar days before the CQCP Workshop. The Contractor's CQCP and QC testing laboratory must be approved in writing by the RPR prior to the Notice to Proceed (NTP).

The CQCP shall be organized to address, as a minimum, the following:

1. QC organization and resumes of key staff
2. Project progress schedule
3. Submittals schedule
4. Inspection requirements
5. QC testing plan
6. Documentation of QC activities and distribution of QC reports
7. Requirements for corrective action when QC and/or QA acceptance criteria are not met
8. Material quality and construction means and methods. Address all elements applicable to the project that affect the quality of the pavement structure including subgrade, subbase, base, and surface course. Some elements that must be addressed include, but is not limited to mix design, aggregate grading, stockpile management, mixing and transporting, placing and finishing, quality control testing and inspection, smoothness, laydown plan, equipment, and temperature management plan.

The Contractor must add any additional elements to the CQCP that is necessary to adequately control all production and/or construction processes required by this contract.

**100-3 CQCP organization.** The CQCP shall be implemented by the establishment of a QC organization. An organizational chart shall be developed to show all QC personnel, their authority, and how these personnel integrate with other management/production and construction functions and personnel.

The organizational chart shall identify all QC staff by name and function, and shall indicate the total staff required to implement all elements of the CQCP, including inspection and testing for each item of work. If necessary, different technicians can be used for specific inspection and testing functions for different items of work. If an outside organization or independent testing laboratory is used for implementation of all or part of the CQCP, the personnel assigned shall be subject to the qualification requirements of paragraphs 100-03a and 100-03b. The organizational chart shall indicate which personnel are Contractor employees and which are provided by an outside organization.

The QC organization shall, as a minimum, consist of the following personnel:

**a. Program Administrator.** The Contractor Quality Control Program Administrator (CQCPA) must be a full-time employee of the Contractor, or a consultant engaged by the Contractor. The CQCPA must have a minimum of five (5) years of experience in QC pavement construction with prior QC experience on a project of comparable size and scope as the contract.

Included in the five (5) years of paving/QC experience, the CQCPA must meet at least one of the following requirements:

- (1) Professional Engineer with one (1) year of airport paving experience.

(2) Engineer-in-training with two (2) years of airport paving experience.

(3) National Institute for Certification in Engineering Technologies (NICET) Civil Engineering Technology Level IV with three (3) years of airport paving experience.

(4) An individual with four (4) years of airport paving experience, with a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology or Construction.

The CQCPA must have full authority to institute any and all actions necessary for the successful implementation of the CQCP to ensure compliance with the contract plans and technical specifications. The CQCPA authority must include the ability to immediately stop production until materials and/or processes are in compliance with contract specifications. The CQCPA must report directly to a principal officer of the construction firm. The CQCPA may supervise the Quality Control Program on more than one project provided that person can be at the job site within two (2) hours after being notified of a problem.

**b. QC technicians.** A sufficient number of QC technicians necessary to adequately implement the CQCP must be provided. These personnel must be either Engineers, engineering technicians, or experienced craftsman with qualifications in the appropriate field equivalent to NICET Level II in Civil Engineering Technology or higher, and shall have a minimum of two (2) years of experience in their area of expertise.

The QC technicians must report directly to the CQCPA and shall perform the following functions:

- (1) Inspection of all materials, construction, plant, and equipment for conformance to the technical specifications, and as required by paragraph 100-6.
- (2) Performance of all QC tests as required by the technical specifications and paragraph 100-8.
- (3) Performance of tests for the RPR when required by the technical specifications.

Certification at an equivalent level of qualification and experience by a state or nationally recognized organization will be acceptable in lieu of NICET certification.

**c. Staffing levels.** The Contractor shall provide sufficient qualified QC personnel to monitor each work activity at all times. Where material is being produced in a plant for incorporation into the work, separate plant and field technicians shall be provided at each plant and field placement location. The scheduling and coordinating of all inspection and testing must match the type and pace of work activity. The CQCP shall state where different technicians will be required for different work elements.

**100-4 Project progress schedule.** Critical QC activities must be shown on the project schedule as required by Section 80, paragraph 80-03, *Execution and Progress*.

**100-5 Submittals schedule.** The Contractor shall submit a detailed listing of all submittals (for example, mix designs, material certifications) and shop drawings required by the technical specifications. The listing can be developed in a spreadsheet format and shall include as a minimum:

- a. Specification item number
- b. Item description
- c. Description of submittal
- d. Specification paragraph requiring submittal
- e. Scheduled date of submittal

**100-6 Inspection requirements.** QC inspection functions shall be organized to provide inspections for all definable features of work, as detailed below. All inspections shall be documented by the Contractor as specified by paragraph 100-9.



Inspections shall be performed as needed to ensure continuing compliance with contract requirements until completion of the particular feature of work. Inspections shall include the following minimum requirements:

**a.** During plant operation for material production, QC test results and periodic inspections shall be used to ensure the quality of aggregates and other mix components, and to adjust and control mix proportioning to meet the approved mix design and other requirements of the technical specifications. All equipment used in proportioning and mixing shall be inspected to ensure its proper operating condition. The CQCP shall detail how these and other QC functions will be accomplished and used.

**b.** During field operations, QC test results and periodic inspections shall be used to ensure the quality of all materials and workmanship. All equipment used in placing, finishing, and compacting shall be inspected to ensure its proper operating condition and to ensure that all such operations are in conformance to the technical specifications and are within the plan dimensions, lines, grades, and tolerances specified. The CQCP shall document how these and other QC functions will be accomplished and used.

#### **100-7 Contractor QC testing facility.**

**a.** For projects that include Item P-401, Item P-403, and Item P-404, the Contractor shall ensure facilities, including all necessary equipment, materials, and current reference standards, are provided that meet requirements in the following paragraphs of ASTM D3666, *Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials*:

- 8.1.3 Equipment Calibration and Checks;
- 8.1.9 Equipment Calibration, Standardization, and Check Records;
- 8.1.12 Test Methods and Procedures

**b.** For projects that include P-501, the Contractor shall ensure facilities, including all necessary equipment, materials, and current reference standards, are provided that meet requirements in the following paragraphs of ASTM C1077, *Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation*:

- 7 Test Methods and Procedures
- 8 Facilities, Equipment, and Supplemental Procedures

**100-8 QC testing plan.** As a part of the overall CQCP, the Contractor shall implement a QC testing plan, as required by the technical specifications. The testing plan shall include the minimum tests and test frequencies required by each technical specification Item, as well as any additional QC tests that the Contractor deems necessary to adequately control production and/or construction processes.

The QC testing plan can be developed in a spreadsheet fashion and shall, as a minimum, include the following:

- a.** Specification item number (e.g., P-401)
- b.** Item description (e.g., Hot Mix Asphalt Pavements)
- c.** Test type (e.g., gradation, grade, asphalt content)
- d.** Test standard (e.g., ASTM or American Association of State Highway and Transportation Officials (AASHTO) test number, as applicable)
- e.** Test frequency (e.g., as required by technical specifications or minimum frequency when requirements are not stated)
- f.** Responsibility (e.g., plant technician)

**g. Control requirements (e.g., target, permissible deviations)**

The QC testing plan shall contain a statistically-based procedure of random sampling for acquiring test samples in accordance with ASTM D3665. The RPR shall be provided the opportunity to witness QC sampling and testing.

All QC test results shall be documented by the Contractor as required by paragraph 100-9.

**100-9 Documentation.** The Contractor shall maintain current QC records of all inspections and tests performed. These records shall include factual evidence that the required QC inspections or tests have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, causes for rejection, etc.; proposed remedial action; and corrective actions taken.

These records must cover both conforming and defective or deficient features, and must include a statement that all supplies and materials incorporated in the work are in full compliance with the terms of the contract. Legible copies of these records shall be furnished to the RPR daily. The records shall cover all work placed subsequent to the previously furnished records and shall be verified and signed by the CQCPA.

Contractor QC records required for the contract shall include, but are not necessarily limited to, the following records:

**a. Daily inspection reports.** Each Contractor QC technician shall maintain a daily log of all inspections performed for both Contractor and subcontractor operations. These technician's daily reports shall provide factual evidence that continuous QC inspections have been performed and shall, as a minimum, include the following:

- (1) Technical specification item number and description
- (2) Compliance with approved submittals
- (3) Proper storage of materials and equipment
- (4) Proper operation of all equipment
- (5) Adherence to plans and technical specifications
- (6) Summary of any necessary corrective actions
- (7) Safety inspection.
- (8) Photographs and/or video

The daily inspection reports shall identify all QC inspections and QC tests conducted, results of inspections, location and nature of defects found, causes for rejection, and remedial or corrective actions taken or proposed.

The daily inspection reports shall be signed by the responsible QC technician and the CQCPA. The RPR shall be provided at least one copy of each daily inspection report on the work day following the day of record. When QC inspection and test results are recorded and transmitted electronically, the results must be archived.

**b. Daily test reports.** The Contractor shall be responsible for establishing a system that will record all QC test results. Daily test reports shall document the following information:

- (1) Technical specification item number and description
- (2) Test designation
- (3) Location
- (4) Date of test
- (5) Control requirements

- (6) Test results
- (7) Causes for rejection
- (8) Recommended remedial actions
- (9) Retests

Test results from each day's work period shall be submitted to the RPR prior to the start of the next day's work period. When required by the technical specifications, the Contractor shall maintain statistical QC charts. When QC daily test results are recorded and transmitted electronically, the results must be archived.

**100-10 Corrective action requirements.** The CQCP shall indicate the appropriate action to be taken when a process is deemed, or believed, to be out of control (out of tolerance) and detail what action will be taken to bring the process into control. The requirements for corrective action shall include both general requirements for operation of the CQCP as a whole, and for individual items of work contained in the technical specifications.

The CQCP shall detail how the results of QC inspections and tests will be used for determining the need for corrective action and shall contain clear rules to gauge when a process is out of control and the type of correction to be taken to regain process control.

When applicable or required by the technical specifications, the Contractor shall establish and use statistical QC charts for individual QC tests. The requirements for corrective action shall be linked to the control charts.

**100-11 Inspection and/or observations by the RPR.** All items of material and equipment are subject to inspection and/or observation by the RPR at the point of production, manufacture or shipment to determine if the Contractor, producer, manufacturer or shipper maintains an adequate QC system in conformance with the requirements detailed here and the applicable technical specifications and plans. In addition, all items of materials, equipment and work in place shall be subject to inspection and/or observation by the RPR at the site for the same purpose.

Inspection and/or observations by the RPR does not relieve the Contractor of performing QC inspections of either on-site or off-site Contractor's or subcontractor's work.

#### **100-12 Noncompliance.**

**a.** The Resident Project Representative (RPR) will provide written notice to the Contractor of any noncompliance with their CQCP. After receipt of such notice, the Contractor must take corrective action.

**b.** When QC activities do not comply with either the CQCP or the contract provisions or when the Contractor fails to properly operate and maintain an effective CQCP, and no effective corrective actions have been taken after notification of non-compliance, the RPR will recommend the Owner take the following actions:

- (1) Order the Contractor to replace ineffective or unqualified QC personnel or subcontractors and/or
- (2) Order the Contractor to stop operations until appropriate corrective actions are taken.

### **METHOD OF MEASUREMENT**

**100-13 Basis of measurement and payment.** No separate measurement or payment will be made for this item.

**BASIS OF PAYMENT**

**100-14** Not Used

**REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

National Institute for Certification in Engineering Technologies (NICET)

ASTM International (ASTM)

ASTM C1077	Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
ASTM D3665	Standard Practice for Random Sampling of Construction Materials
ASTM D3666	Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials

**END OF ITEM C-100**

## **Item C-102 Temporary Air and Water Pollution, Soil Erosion, and Siltation Control**

### **DESCRIPTION**

**102-1.** This item shall consist of temporary control measures as shown on the plans or as ordered by the Resident Project Representative (RPR) during the life of a contract to control pollution of air and water, soil erosion, and siltation through the use of silt fences, berms, dikes, dams, sediment basins, fiber mats, gravel, mulches, grasses, slope drains, and other erosion control devices or methods.

Temporary erosion control shall be in accordance with the approved erosion control plan; the approved Construction Safety and Phasing Plan (CSPP) and AC 150/5370-2, *Operational Safety on Airports During Construction*. The temporary erosion control measures contained herein shall be coordinated with the permanent erosion control measures specified as part of this contract to the extent practical to assure economical, effective, and continuous erosion control throughout the construction period.

Temporary control may include work outside the construction limits such as borrow pit operations, equipment and material storage sites, waste areas, and temporary plant sites.

Temporary control measures shall be designed, installed and maintained to minimize the creation of wildlife attractants that have the potential to attract hazardous wildlife on or near public-use airports.

### **MATERIALS**

**102-2.1 Silt fence.** Silt fence shall consist of polymeric filaments which are formed into a stable network such that filaments retain their relative positions. Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life. Silt fence shall meet the requirements of ASTM D6461.

**102-2.2 Storm Drain Inlet Protection.** Storm Drain Inlet Protection shall be in accordance with Section 4.1 "Temporary Sediment Control" of the Caltrans Construction Site Best Management Practice (BMP) Manual, Factsheet SC-10.

**102-2.3 Stabilized Construction Entrance/Exit.** Stabilized Construction Entrance/Exit shall be in accordance with Section 6.1 "Tracking Control" of the Caltrans Construction Site Best Management Practice (BMP) Manual, Factsheet TC-1.

**102-2.4 Other.** All other materials shall meet commercial grade standards and shall be approved by the RPR before being incorporated into the project.

### **CONSTRUCTION REQUIREMENTS**

**102-3.1 General.** In the event of conflict between these requirements and pollution control laws, rules, or regulations of other federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.

The RPR shall be responsible for assuring compliance to the extent that construction practices, construction operations, and construction work are involved.

**102-3.2 Schedule.** Prior to the start of construction, the Contractor shall submit schedules in accordance with the approved Construction Safety and Phasing Plan (CSPP) and the plans for accomplishment of temporary and permanent erosion control work for clearing and grubbing; grading; construction; paving; and structures at watercourses. The Contractor shall also submit a proposed method of erosion and dust control on haul roads and borrow pits and a plan for disposal of waste materials. Work shall not be started until the erosion control schedules and methods of operation for the applicable construction have been accepted by the RPR.

**102-3.3 Construction details.** The Contractor will be required to incorporate all permanent erosion control features into the project at the earliest practicable time as outlined in the plans and approved CSPP. Except where future construction operations will damage slopes, the Contractor shall perform the permanent seeding and mulching and other specified slope protection work in stages, as soon as substantial areas of exposed slopes can be made available. Temporary erosion and pollution control measures will be used to correct conditions that develop during construction that were not foreseen during the design stage; that are needed prior to installation of permanent control features; or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with permanent control features on the project.

Where erosion may be a problem, schedule and perform clearing and grubbing operations so that grading operations and permanent erosion control features can follow immediately if project conditions permit. Temporary erosion control measures are required if permanent measures cannot immediately follow grading operations. The RPR shall limit the area of clearing and grubbing, excavation, borrow, and embankment operations in progress, commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent control measures current with the accepted schedule. If seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately to the extent feasible and justified as directed by the RPR.

The Contractor shall provide immediate permanent or temporary pollution control measures to minimize contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment as directed by the RPR. If temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled or directed by the RPR, the work shall be performed by the Contractor and the cost shall be incidental to this item.

The RPR may increase or decrease the area of erodible earth material that can be exposed at any time based on an analysis of project conditions.

The erosion control features installed by the Contractor shall be maintained by the Contractor during the construction period.

Provide temporary structures whenever construction equipment must cross watercourses at frequent intervals. Pollutants such as fuels, lubricants, bitumen, raw sewage, wash water from concrete mixing operations, and other harmful materials shall not be discharged into any waterways, impoundments or into natural or manmade channels.

**102-3.4 Installation, maintenance and removal of silt fence.** Silt fences shall extend a minimum of 16 inches (41 cm) and a maximum of 34 inches (86 cm) above the ground surface. Posts shall be set no more than 10 feet (3 m) on center. Filter fabric shall be cut from a continuous roll to the length required minimizing joints where possible. When joints are necessary, the fabric shall be spliced at a support post with a minimum 12-inch (300-mm) overlap and securely sealed. A trench shall be excavated approximately 4 inches (100 mm) deep by 4 inches (100 mm) wide on the upslope side of the silt fence. The trench shall be backfilled and the soil compacted over the silt fence fabric. The Contractor shall

remove and dispose of silt that accumulates during construction and prior to establishment of permanent erosion control. The fence shall be maintained in good working condition until permanent erosion control is established. Silt fence shall be removed upon approval of the RPR.

### **METHOD OF MEASUREMENT**

**102-4.1** Temporary and permanent erosion and pollution control work required will be performed as scheduled or directed by the RPR. Completed and accepted work will be measured on a lump sum basis.

**102-4.2** Control work performed for protection of construction areas outside the construction limits, such as borrow and waste areas, haul roads, equipment and material storage sites, and temporary plant sites, will not be measured and paid for directly but shall be considered as a subsidiary obligation of the Contractor.

### **BASIS OF PAYMENT**

**102-5.1** Accepted quantities of temporary water pollution, soil erosion, and siltation control work ordered by the RPR and measured as provided in paragraph 102-4.1 will be paid for under:

- |                |   |
|----------------|---|
| Item C-102-5.1 | Temporary Air Pollution and Water Pollution, Soil Erosion and Siltation Control<br>– per lump sum |
| Item C-102-5.2 | Development and Compliance of SWPPP Control – per lump sum  |

Where other directed work falls within the specifications for a work item that has a contract price, the units of work shall be measured and paid for at the contract unit price bid for the various items.

Temporary control features not covered by contract items that are ordered by the RPR will be paid for in accordance with Section 90, paragraph 90-05 *Payment for Extra Work*.

### **REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

#### Advisory Circulars (AC)

- |                |   |
|----------------|---|
| AC 150/5200-33 | <i>Hazardous Wildlife Attractants on or Near Airports</i> |
| AC 150/5370-2  | <i>Operational Safety on Airports During Construction</i> |

#### ASTM International (ASTM)

- |            |  |
|------------|--|
| ASTM D6461 | <i>Standard Specification for Silt Fence Materials</i> |
|------------|--|

#### United States Department of Agriculture (USDA)

- FAA/USDA Wildlife Hazard Management at Airports, A Manual for Airport Personnel

### **END OF ITEM C-102**

### Item C-105 Mobilization

**105-1 Description.** This item of work shall consist of, but is not limited to, work and operations necessary for the movement of personnel, equipment, material and supplies to and from the project site for work on the project except as provided in the contract as separate pay items.

**105-2 Mobilization limit.** Mobilization shall be limited to 5 percent of the total project cost.

**105-3 Posted notices.** Prior to commencement of construction activities, the Contractor must post the following documents in a prominent and accessible place where they may be easily viewed by all employees of the prime Contractor and by all employees of subcontractors engaged by the prime Contractor: Equal Employment Opportunity (EEO) Poster "Equal Employment Opportunity is the Law" in accordance with the Office of Federal Contract Compliance Programs Executive Order 11246, as amended; Davis Bacon Wage Poster (WH 1321) - DOL "Notice to All Employees" Poster; and Applicable Davis-Bacon Wage Rate Determination. These notices must remain posted until final acceptance of the work by the Owner.

**105-4 Engineer/RPR field office and equipment.** The Contractor shall provide dedicated space for the use of the field RPR and inspectors, as a field office for the duration of the project. This space may be located within the Contractor's field office provided that there is a secured separate room with direct entry/exit access for the RPR's use. The field office shall be located conveniently near the construction site. The Contractor shall furnish water, sanitary facilities, heat, air conditioning, and electricity in accordance with local building codes.

**105-4.1 Field Office** The field office, equipment and all appurtenances shall be onsite, installed and operational at least 7 days prior to commencement of construction, and shall remain in place for a period of 30 days after the date of final acceptance of the project. The Contractor shall maintain all facilities and furnished equipment in good working condition.

The field office shall have a minimum ceiling height of 7 feet and shall be provided with six weather proof windows and two weatherproof doors, each equipped with adequate locking devices. Each window shall have a minimum area of 8 square feet, shall be screened and of a type that will open and close to provide adequate ventilation.

The field office shall have a minimum of 325 square feet of floor space. The field office shall be partitioned to provide two rooms with an adjoining door. The smaller room shall be not less than 95 square feet in floor area and shall contain two windows.

Lighting shall consist of electric non-glare type luminaries that provide a minimum level of 93 foot-candles at desk height level.

Heating and cooling units shall be capable of maintaining an ambient air temperature of 70 degrees F, +/- 5 degrees.

Hot and cold running water shall be provided. The water may be provided from a municipal water line, or from potable bottled water. Potable bottled water shall utilize a dispensing unit capable of providing hot and cold water.

The field office shall have a separately enclosed room, properly ventilated and complying with applicable sanitary codes with a flush-type toilet. The Contractor shall provide all lavatory amenities, necessary paper and soap products, and hot and cold running water.



Steps shall be installed at each door to the field office and shall include a hand rail. Steps shall meet the requirements of all applicable building, safety, and health regulations and laws. Portable steps, when used, shall be set level and shall be suitably anchored to the ground to prevent movement.

The office shall be cleaned at least once weekly, and at other times as directed by the RPR.

The Contractor may furnish equivalent facilities in an existing building provided such facilities and buildings are located conveniently near to the construction, and provided the building and location is acceptable to the RPR.

The field office and site shall be maintained in good condition and appearance by the Contractor for the designated period, after which the field office, utilities and appurtenances shall be removed and the site restored to a condition equal to or better than original condition. The Contractor shall be responsible, until use and occupancy of the field office is relinquished by the RPR, for any and all damage, direct or indirect, of whatever nature, occurring to the property of the Owner and RPR, including the property of other employees of the RPR assigned to the field office, which is kept in the field office. The responsibility of property shall include only those items used by appropriate personnel in the performance of project related work activities. Such property shall be replaced within 30 days of the reported damages and shall include any loss caused by, but not limited to, fire, theft, vandalism, and malicious mischief.

The RPR shall provide the Contractor with a detailed list of items, with corresponding dollar values, belonging to the RPR, and the RPR's personnel. The list shall be updated at least every three months, but not more than once a month. The Contractor shall not be responsible for items kept in the RPR's field office that are not on this list.

#### **105-4.2 Field Office Equipment:**

- A. Desks and chairs.** The Contractor shall provide 3 office desks that are at least 2-1/2 feet by 5 feet each and 6 office chairs.
- B.** The Contractor shall provide 2 drafting tables which are approximately 3 feet by 6 feet and 4 stools.
- C. Office table.** The Contractor shall provide an office table which is at least 3 feet by 6 feet.
- D. Network access, additional equipment and appurtenances.** The Contractor shall provide following items in the field office:
  - a. A secured wired or wireless network with ability for printing and scanning documents and access to high speed internet for multiple computers and/or devices available from the start of the project for the project duration. Internet Access shall be obtained through one of the following methods\* (in order of preference):
    - 1. Cable Modem
    - 2. Wireless Broadband Access Card
    - 3. Satellite Modem
  - ii. \*A minimum download speed of 25 Mbps is required for the accepted internet connection. Connection type shall be approved by the RPR.
  - b. Router meeting minimum requirements of IEEE 802.11n standards
- E. Printer paper and ink cartridges.** The Contractor shall provide a supply of 8-1/2 x 11 inch and 11 x 17 inch printer paper and spare printer ink cartridges in the field office. The supply shall be replenished as needed throughout the duration of the project.
- F. Refrigerator.** The Contractor shall provide a standard electric cold storage type refrigerator providing a minimum storage space of 3 cubic feet.
- G. Metal storage cabinet.** The Contractor shall provide one metal storage cabinet with four adjustable shelves, a tumbler lock and 2 keys.

- H. First aid kit.** The Contractor shall provide a first aid kit properly stocked with appropriate first aid supplies.
- I. Fire extinguishers.** The Contractor shall provide one fire extinguisher per room. The fire extinguisher shall be a non-toxic dry chemical, fire extinguisher meeting Underwriters Laboratories, Inc., approval for Class A, Class B and Class C fires with a minimum rating of 2A:10B:10C.
- J. Thermometer.** The Contractor shall provide a minimum-maximum Fahrenheit thermometer.
- K. Tack boards.** The Contractor shall provide a cork tack board mounted on a wall in each room. The tack board shall be a minimum of 2 feet high by 4 feet wide.
- L. Waste paper baskets.** The Contractor shall provide a metal waste basket in each room.

### METHOD OF MEASUREMENT

**105-5.1** Measurement for payment of mobilization will be made on a lump sum basis. Measurement for partial payment of mobilization will be made based percentage of work completed in accordance with the schedule shown in Section 6.1.

**105-5.2** Measurement for payment for the field office, and for field office equipment will be made on lump sum bases. Measurements for partial payment of each item may be made at the discretion of the RPR as the work progresses based on contract time or percent of work completed.

**105-5.3** Measurement for payment for field office equipment shall be measured by each item and the associated costs of the items outlined in this specification within the not-to-exceed allowance.

### BASIS OF PAYMENT

**105-6.1** Payment for mobilization will be made on a lump sum basis. Based upon the contract lump sum price for "Mobilization" partial payments will be allowed as follows:

- a. With first pay request, 25%.
- b. When 25% or more of the original contract is earned, an additional 25%.
- c. When 50% or more of the original contract is earned, an additional 40%.

d. After Final Inspection, Staging area clean-up and delivery of all Project Closeout materials as required by Section 90, paragraph 90-11, *Contractor Final Project Documentation*, the final 10%.

**105-6.2** The lump sum prices bid for the field office shall include all utility charges, equipment, materials, labor and incidentals necessary to complete this item. Partial payments of the lump sum price bid may be made at the discretion of the RPR as the work progresses based on contract time or percent of work completed. No payment shall be made for items omitted by the Owner or not properly maintained by the Contractor throughout the duration of the project.

**105-6.3** The not-to-exceed allowance price for field office equipment shall include all equipment, materials, labor and incidentals necessary to complete this item. Partial payments of the lump sum price bid may be made at the discretion of the RPR as the work progresses based on contract time or percent of work completed. No payment shall be made for items omitted by the Owner or not properly maintained by the Contractor throughout the duration of the project.

Payment will be made under:

- Item C-105-6.1      Mobilization – per lump sum
- Item C-105-6.2      Field Office – per lump sum
- Item C-105-6.3      Field Office Equipment – per allowance

### **REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Office of Federal Contract Compliance Programs (OFCCP)

Executive Order 11246, as amended

EEOC-P/E-1 – Equal Employment Opportunity is the Law Poster

United States Department of Labor, Wage and Hour Division (WHD)

WH 1321 – Employee Rights under the Davis-Bacon Act Poster

**END OF ITEM C-105**

## **Item C-106 Safety, Security and Maintenance of Traffic**

### **DESCRIPTION**

**106-1.1 General.** This work shall consist of maintaining aircraft and vehicular traffic and protecting the public from damage to person and property within the limits of and for the duration of the Contract, and as specified in the Construction Safety and Phasing Plan, Appendix A to Section 70.

Contractor is responsible for maintenance and repair of these items, regardless of cause of damage, until the project is accepted.

The following items are specifically included without limiting the generality implied by these Specifications and the Contract Drawings. Contractor is responsible for maintenance and repair of these items, regardless of cause of damage, until the project is accepted.

- Restoration of all surfaces disturbed as a result of the Contractor's Operations which are not otherwise paid for.
- Installation, maintenance, repair and removal of temporary access roads and maintenance and repair of existing access roads, including dust control measures.
- Installation, maintenance, repair and removal of temporary barricades, barricade lights, light plants for night work, barricade flags, warning signs and hazard markings.
- Cleaning and maintenance of all paved areas.
- Security requirements

The Owner will be responsible for moving parked aircraft which interfere with the work of this Contract. Contractor shall give the Owner adequate notice of the intended work schedule to allow the Owner time to accommodate the schedule.

The Owner will be responsible for issuing notification to patrons of the parking lot for upcoming work based on the Contractor's schedule. Contractor shall be responsible for moving parked vehicles which interfere with the work of this Contract. Vehicles shall be moved to a location designated by the Owner during construction. Damage to vehicles caused by the Contractor's operations shall be repaired by the Contractor at no expense to the Owner or vehicle owner.

### **METHOD OF MEASUREMENT**

**106-2.1** Measurement for payment of safety, security and maintenance of traffic will be made on a lump sum basis. Measurements for partial payment may be made at the discretion of the RPR as the work progresses based on contract time or percent of work completed.

### **BASIS OF PAYMENT**

**106-3.1** The lump sum price bid for safety, security and maintenance of traffic shall include all equipment, materials, labor and incidentals necessary to adequately and safely maintain and protect traffic.

In the event the contract completion date is extended, no additional payment will be made for safety, security and maintenance of traffic.

Partial payments of the lump sum price bid may be made for this item at the discretion of the RPR as the work progresses based on contract time or work completed, less any deductions for unsatisfactory safety, security and maintenance of traffic.

No payment will be made under safety, security and maintenance of traffic for each calendar day during which there are substantial deficiencies in compliance with the Specification requirements of any subsection of this Section as determined by the RPR.

The amount of such calendar day non-payment will be determined by dividing the lump sum amount bid for safety, security and maintenance of traffic by the number of calendar days between the date the Contractor commences work and the date of completion as designated in this proposal, without regard to any extension of time.

If the Contractor fails to maintain and protect traffic adequately and safely for a period of 24 hours, the Owner shall correct the adverse conditions by any means it deems appropriate and shall deduct the cost of the corrective work from any monies due the Contractor. The cost of this work shall be in addition to the liquidated damages and non-payment for safety, security and maintenance of traffic listed above.

However, where major nonconformance with the requirements of this Specification is noted by the RPR and prompt Contractor compliance is deemed not to be obtainable, all contract work may be stopped by direct order of the RPR regardless of whether corrections are made by the Owner as stated in the paragraph above.

Payment will be made under:

C-106-3.1                      Safety, Security and Maintenance of Traffic - per lump sum

**END OF ITEM C-106**

### Item C-110 Method of Estimating Percentage of Material Within Specification Limits (PWL)

**110-1 General.** When the specifications provide for acceptance of material based on the method of estimating percentage of material within specification limits (PWL), the PWL will be determined in accordance with this section. All test results for a lot will be analyzed statistically to determine the total estimated percent of the lot that is within specification limits. The PWL is computed using the sample average ( $\bar{X}$ ) and sample standard deviation ( $S_n$ ) of the specified number ( $n$ ) of sublots for the lot and the specification tolerance limits,  $L$  for lower and  $U$  for upper, for the particular acceptance parameter. From these values, the respective Quality index,  $Q_L$  for Lower Quality Index and/or  $Q_U$  for Upper Quality Index, is computed and the PWL for the lot for the specified  $n$  is determined from Table 1. All specification limits specified in the technical sections shall be absolute values. Test results used in the calculations shall be to the significant figure given in the test procedure.

There is some degree of uncertainty (risk) in the measurement for acceptance because only a small fraction of production material (the population) is sampled and tested. This uncertainty exists because all portions of the production material have the same probability to be randomly sampled. The Contractor's risk is the probability that material produced at the acceptable quality level is rejected or subjected to a pay adjustment. The Owner's risk is the probability that material produced at the rejectable quality level is accepted.

It is the intent of this section to inform the Contractor that, in order to consistently offset the Contractor's risk for material evaluated, production quality (using population average and population standard deviation) must be maintained at the acceptable quality specified or higher. In all cases, it is the responsibility of the Contractor to produce at quality levels that will meet the specified acceptance criteria when sampled and tested at the frequencies specified.

**110-2 Method for computing PWL.** The computational sequence for computing PWL is as follows:

- a. Divide the lot into  $n$  sublots in accordance with the acceptance requirements of the specification.
- b. Locate the random sampling position within the subplot in accordance with the requirements of the specification.
- c. Make a measurement at each location, or take a test portion and make the measurement on the test portion in accordance with the testing requirements of the specification.
- d. Find the sample average ( $\bar{X}$ ) for all subplot test values within the lot by using the following formula:

$$\bar{X} = (x_1 + x_2 + x_3 + \dots + x_n) / n$$

Where:  $\bar{X}$  = Sample average of all subplot test values within a lot

$x_1, x_2, \dots, x_n$  = Individual subplot test values

$n$  = Number of subplot test values

- e. Find the sample standard deviation ( $S_n$ ) by use of the following formula:

$$S_n = [(d_1^2 + d_2^2 + d_3^2 + \dots + d_n^2)/(n-1)]^{1/2}$$

Where:  $S_n$  = Sample standard deviation of the number of subplot test values in the set

$d_1, d_2, \dots, d_n$  = Deviations of the individual subplot test values  $x_1, x_2, \dots$  from the average value  $X$

that is:  $d_1 = (x_1 - X), d_2 = (x_2 - X) \dots d_n = (x_n - X)$

$n$  = Number of subplot test values

**f.** For single sided specification limits (i.e.,  $L$  only), compute the Lower Quality Index  $Q_L$  by use of the following formula:

$$Q_L = (X - L) / S_n$$

Where:  $L$  = specification lower tolerance limit

Estimate the percentage of material within limits (PWL) by entering Table 1 with  $Q_L$ , using the column appropriate to the total number ( $n$ ) of measurements. If the value of  $Q_L$  falls between values shown on the table, use the next higher value of PWL.

**g.** For double-sided specification limits (i.e.,  $L$  and  $U$ ), compute the Quality Indexes  $Q_L$  and  $Q_U$  by use of the following formulas:

$$Q_L = (X - L) / S_n$$

and

$$Q_U = (U - X) / S_n$$

Where:  $L$  and  $U$  = specification lower and upper tolerance limits

Estimate the percentage of material between the lower ( $L$ ) and upper ( $U$ ) tolerance limits (PWL) by entering Table 1 separately with  $Q_L$  and  $Q_U$ , using the column appropriate to the total number ( $n$ ) of measurements, and determining the percent of material above  $P_L$  and percent of material below  $P_U$  for each tolerance limit. If the values of  $Q_L$  fall between values shown on the table, use the next higher value of  $P_L$  or  $P_U$ . Determine the PWL by use of the following formula:

$$PWL = (P_U + P_L) - 100$$

Where:  $P_L$  = percent within lower specification limit

$P_U$  = percent within upper specification limit

## METHOD OF MEASUREMENT

**110-3.1** No measurement will be made for direct payment of estimating percentage of material within specification limits. The cost shall be considered a subsidiary obligation in the completion of the work.

## BASIS OF PAYMENT

**110-4.1** No payment will be made separately or directly for estimating percentage of material within specification limits on any part of the work. All estimating percentage of material within specification

limits shall be considered a necessary and incidental part of the work and its cost shall be considered by the Contractor and included in the contract unit price for the pay items involved.

### EXAMPLE OF PWL CALCULATION

**Project:** Example Project

**Test Item:** Item P-401, Lot A.

#### A. PWL Determination for Mat Density.

1. Density of four random cores taken from Lot A.

$$A-1 = 96.60$$

$$A-2 = 97.55$$

$$A-3 = 99.30$$

$$A-4 = 98.35$$

$$n = 4$$

2. Calculate average density for the lot.

$$X = (x_1 + x_2 + x_3 + \dots + x_n) / n$$

$$X = (96.60 + 97.55 + 99.30 + 98.35) / 4$$

$$X = 97.95\% \text{ density}$$

3. Calculate the standard deviation for the lot.

$$S_n = [((96.60 - 97.95)^2 + (97.55 - 97.95)^2 + (99.30 - 97.95)^2 + (98.35 - 97.95)^2) / (4 - 1)]^{1/2}$$

$$S_n = [(1.82 + 0.16 + 1.82 + 0.16) / 3]^{1/2}$$

$$S_n = 1.15$$

4. Calculate the Lower Quality Index  $Q_L$  for the lot. ( $L=96.3$ )

$$Q_L = (X - L) / S_n$$

$$Q_L = (97.95 - 96.30) / 1.15$$

$$Q_L = 1.4348$$

5. Determine PWL by entering Table 1 with  $Q_L = 1.44$  and  $n = 4$ .

$$PWL = 98$$

#### B. PWL Determination for Air Voids.

1. Air Voids of four random samples taken from Lot A.

$$A-1 = 5.00$$

$$A-2 = 3.74$$

$$A-3 = 2.30$$

$$A-4 = 3.25$$

2. Calculate the average air voids for the lot.

$$X = (x_1 + x_2 + x_3 + \dots + x_n) / n$$

$$X = (5.00 + 3.74 + 2.30 + 3.25) / 4$$



$$X = 3.57\%$$

3. Calculate the standard deviation  $S_n$  for the lot.

$$S_n = [((3.57 - 5.00)^2 + (3.57 - 3.74)^2 + (3.57 - 2.30)^2 + (3.57 - 3.25)^2) / (4 - 1)]^{1/2}$$

$$S_n = [(2.04 + 0.03 + 1.62 + 0.10) / 3]^{1/2}$$

$$S_n = 1.12$$

4. Calculate the Lower Quality Index  $Q_L$  for the lot. ( $L = 2.0$ )

$$Q_L = (X - L) / S_n$$

$$Q_L = (3.57 - 2.00) / 1.12$$

$$Q_L = 1.3992$$

5. Determine  $P_L$  by entering Table 1 with  $Q_L = 1.41$  and  $n = 4$ .

$$P_L = 97$$

6. Calculate the Upper Quality Index  $Q_U$  for the lot. ( $U = 5.0$ )

$$Q_U = (U - X) / S_n$$

$$Q_U = (5.00 - 3.57) / 1.12$$

$$Q_U = 1.2702$$

7. Determine  $P_U$  by entering Table 1 with  $Q_U = 1.29$  and  $n = 4$ .

$$P_U = 93$$

8. Calculate Air Voids PWL

$$PWL = (P_L + P_U) - 100$$

$$PWL = (97 + 93) - 100 = 90$$

### EXAMPLE OF OUTLIER CALCULATION (REFERENCE ASTM E178)

**Project:** Example Project

**Test Item:** Item P-401, Lot A.

#### A. Outlier Determination for Mat Density.

1. Density of four random cores taken from Lot A arranged in descending order.

$$A-3 = 99.30$$

$$A-4 = 98.35$$

$$A-2 = 97.55$$

$$A-1 = 96.60$$

2. From ASTM E178, Table 1, for  $n=4$  an upper 5% significance level, the critical value for test criterion = 1.463.

3. Use average density, standard deviation, and test criterion value to evaluate density measurements.

- a. For measurements greater than the average:

If (measurement - average)/(standard deviation) is less than test criterion,  
then the measurement is not considered an outlier.

For A-3, check if  $(99.30 - 97.95) / 1.15$  is greater than 1.463.

Since 1.174 is less than 1.463, the value is not an outlier.

**b.** For measurements less than the average:

If  $(\text{average} - \text{measurement}) / (\text{standard deviation})$  is less than test criterion,  
then the measurement is not considered an outlier.

For A-1, check if  $(97.95 - 96.60) / 1.15$  is greater than 1.463.

Since 1.435 is less than 1.463, the value is not an outlier.

**Note:** In this example, a measurement would be considered an outlier if the density were:

Greater than  $(97.95 + 1.463 \times 1.15) = 99.63\%$

OR

less than  $(97.95 - 1.463 \times 1.15) = 96.27\%$ .

**Table 1. Table for Estimating Percent of Lot Within Limits (PWL)**

Percent Within Limits (P <sub>L</sub> and P <sub>U</sub> )	Positive Values of Q (Q <sub>L</sub> and Q <sub>U</sub> )							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
99	1.1541	1.4700	1.6714	1.8008	1.8888	1.9520	1.9994	2.0362
98	1.1524	1.4400	1.6016	1.6982	1.7612	1.8053	1.8379	1.8630
97	1.1496	1.4100	1.5427	1.6181	1.6661	1.6993	1.7235	1.7420
96	1.1456	1.3800	1.4897	1.5497	1.5871	1.6127	1.6313	1.6454
95	1.1405	1.3500	1.4407	1.4887	1.5181	1.5381	1.5525	1.5635
94	1.1342	1.3200	1.3946	1.4329	1.4561	1.4717	1.4829	1.4914
93	1.1269	1.2900	1.3508	1.3810	1.3991	1.4112	1.4199	1.4265
92	1.1184	1.2600	1.3088	1.3323	1.3461	1.3554	1.3620	1.3670
91	1.1089	1.2300	1.2683	1.2860	1.2964	1.3032	1.3081	1.3118
90	1.0982	1.2000	1.2290	1.2419	1.2492	1.2541	1.2576	1.2602
89	1.0864	1.1700	1.1909	1.1995	1.2043	1.2075	1.2098	1.2115
88	1.0736	1.1400	1.1537	1.1587	1.1613	1.1630	1.1643	1.1653
87	1.0597	1.1100	1.1173	1.1192	1.1199	1.1204	1.1208	1.1212
86	1.0448	1.0800	1.0817	1.0808	1.0800	1.0794	1.0791	1.0789
85	1.0288	1.0500	1.0467	1.0435	1.0413	1.0399	1.0389	1.0382
84	1.0119	1.0200	1.0124	1.0071	1.0037	1.0015	1.0000	0.9990
83	0.9939	0.9900	0.9785	0.9715	0.9671	0.9643	0.9624	0.9610
82	0.9749	0.9600	0.9452	0.9367	0.9315	0.9281	0.9258	0.9241
81	0.9550	0.9300	0.9123	0.9025	0.8966	0.8928	0.8901	0.8882
80	0.9342	0.9000	0.8799	0.8690	0.8625	0.8583	0.8554	0.8533
79	0.9124	0.8700	0.8478	0.8360	0.8291	0.8245	0.8214	0.8192
78	0.8897	0.8400	0.8160	0.8036	0.7962	0.7915	0.7882	0.7858
77	0.8662	0.8100	0.7846	0.7716	0.7640	0.7590	0.7556	0.7531
76	0.8417	0.7800	0.7535	0.7401	0.7322	0.7271	0.7236	0.7211
75	0.8165	0.7500	0.7226	0.7089	0.7009	0.6958	0.6922	0.6896
74	0.7904	0.7200	0.6921	0.6781	0.6701	0.6649	0.6613	0.6587
73	0.7636	0.6900	0.6617	0.6477	0.6396	0.6344	0.6308	0.6282
72	0.7360	0.6600	0.6316	0.6176	0.6095	0.6044	0.6008	0.5982
71	0.7077	0.6300	0.6016	0.5878	0.5798	0.5747	0.5712	0.5686
70	0.6787	0.6000	0.5719	0.5582	0.5504	0.5454	0.5419	0.5394
69	0.6490	0.5700	0.5423	0.5290	0.5213	0.5164	0.5130	0.5105
68	0.6187	0.5400	0.5129	0.4999	0.4924	0.4877	0.4844	0.4820
67	0.5878	0.5100	0.4836	0.4710	0.4638	0.4592	0.4560	0.4537
66	0.5563	0.4800	0.4545	0.4424	0.4355	0.4310	0.4280	0.4257
65	0.5242	0.4500	0.4255	0.4139	0.4073	0.4030	0.4001	0.3980
64	0.4916	0.4200	0.3967	0.3856	0.3793	0.3753	0.3725	0.3705
63	0.4586	0.3900	0.3679	0.3575	0.3515	0.3477	0.3451	0.3432
62	0.4251	0.3600	0.3392	0.3295	0.3239	0.3203	0.3179	0.3161

Percent Within Limits (P <sub>L</sub> and P <sub>U</sub> )	Positive Values of Q (Q <sub>L</sub> and Q <sub>U</sub> )							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
61	0.3911	0.3300	0.3107	0.3016	0.2964	0.2931	0.2908	0.2892
60	0.3568	0.3000	0.2822	0.2738	0.2691	0.2660	0.2639	0.2624
59	0.3222	0.2700	0.2537	0.2461	0.2418	0.2391	0.2372	0.2358
58	0.2872	0.2400	0.2254	0.2186	0.2147	0.2122	0.2105	0.2093
57	0.2519	0.2100	0.1971	0.1911	0.1877	0.1855	0.1840	0.1829
56	0.2164	0.1800	0.1688	0.1636	0.1607	0.1588	0.1575	0.1566
55	0.1806	0.1500	0.1406	0.1363	0.1338	0.1322	0.1312	0.1304
54	0.1447	0.1200	0.1125	0.1090	0.1070	0.1057	0.1049	0.1042
53	0.1087	0.0900	0.0843	0.0817	0.0802	0.0793	0.0786	0.0781
52	0.0725	0.0600	0.0562	0.0544	0.0534	0.0528	0.0524	0.0521
51	0.0363	0.0300	0.0281	0.0272	0.0267	0.0264	0.0262	0.0260
50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Percent Within Limits (P <sub>L</sub> and P <sub>U</sub> )	Negative Values of Q (Q <sub>L</sub> and Q <sub>U</sub> )							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
49	-0.0363	-0.0300	-0.0281	-0.0272	-0.0267	-0.0264	-0.0262	-0.0260
48	-0.0725	-0.0600	-0.0562	-0.0544	-0.0534	-0.0528	-0.0524	-0.0521
47	-0.1087	-0.0900	-0.0843	-0.0817	-0.0802	-0.0793	-0.0786	-0.0781
46	-0.1447	-0.1200	-0.1125	-0.1090	-0.1070	-0.1057	-0.1049	-0.1042
45	-0.1806	-0.1500	-0.1406	-0.1363	-0.1338	-0.1322	-0.1312	-0.1304
44	-0.2164	-0.1800	-0.1688	-0.1636	-0.1607	-0.1588	-0.1575	-0.1566
43	-0.2519	-0.2100	-0.1971	-0.1911	-0.1877	-0.1855	-0.1840	-0.1829
42	-0.2872	-0.2400	-0.2254	-0.2186	-0.2147	-0.2122	-0.2105	-0.2093
41	-0.3222	-0.2700	-0.2537	-0.2461	-0.2418	-0.2391	-0.2372	-0.2358
40	-0.3568	-0.3000	-0.2822	-0.2738	-0.2691	-0.2660	-0.2639	-0.2624
39	-0.3911	-0.3300	-0.3107	-0.3016	-0.2964	-0.2931	-0.2908	-0.2892
38	-0.4251	-0.3600	-0.3392	-0.3295	-0.3239	-0.3203	-0.3179	-0.3161
37	-0.4586	-0.3900	-0.3679	-0.3575	-0.3515	-0.3477	-0.3451	-0.3432
36	-0.4916	-0.4200	-0.3967	-0.3856	-0.3793	-0.3753	-0.3725	-0.3705
35	-0.5242	-0.4500	-0.4255	-0.4139	-0.4073	-0.4030	-0.4001	-0.3980
34	-0.5563	-0.4800	-0.4545	-0.4424	-0.4355	-0.4310	-0.4280	-0.4257
33	-0.5878	-0.5100	-0.4836	-0.4710	-0.4638	-0.4592	-0.4560	-0.4537
32	-0.6187	-0.5400	-0.5129	-0.4999	-0.4924	-0.4877	-0.4844	-0.4820
31	-0.6490	-0.5700	-0.5423	-0.5290	-0.5213	-0.5164	-0.5130	-0.5105
30	-0.6787	-0.6000	-0.5719	-0.5582	-0.5504	-0.5454	-0.5419	-0.5394
29	-0.7077	-0.6300	-0.6016	-0.5878	-0.5798	-0.5747	-0.5712	-0.5686
28	-0.7360	-0.6600	-0.6316	-0.6176	-0.6095	-0.6044	-0.6008	-0.5982
27	-0.7636	-0.6900	-0.6617	-0.6477	-0.6396	-0.6344	-0.6308	-0.6282
26	-0.7904	-0.7200	-0.6921	-0.6781	-0.6701	-0.6649	-0.6613	-0.6587
25	-0.8165	-0.7500	-0.7226	-0.7089	-0.7009	-0.6958	-0.6922	-0.6896
24	-0.8417	-0.7800	-0.7535	-0.7401	-0.7322	-0.7271	-0.7236	-0.7211
23	-0.8662	-0.8100	-0.7846	-0.7716	-0.7640	-0.7590	-0.7556	-0.7531
22	-0.8897	-0.8400	-0.8160	-0.8036	-0.7962	-0.7915	-0.7882	-0.7858
21	-0.9124	-0.8700	-0.8478	-0.8360	-0.8291	-0.8245	-0.8214	-0.8192
20	-0.9342	-0.9000	-0.8799	-0.8690	-0.8625	-0.8583	-0.8554	-0.8533
19	-0.9550	-0.9300	-0.9123	-0.9025	-0.8966	-0.8928	-0.8901	-0.8882
18	-0.9749	-0.9600	-0.9452	-0.9367	-0.9315	-0.9281	-0.9258	-0.9241
17	-0.9939	-0.9900	-0.9785	-0.9715	-0.9671	-0.9643	-0.9624	-0.9610
16	-1.0119	-1.0200	-1.0124	-1.0071	-1.0037	-1.0015	-1.0000	-0.9990
15	-1.0288	-1.0500	-1.0467	-1.0435	-1.0413	-1.0399	-1.0389	-1.0382
14	-1.0448	-1.0800	-1.0817	-1.0808	-1.0800	-1.0794	-1.0791	-1.0789
13	-1.0597	-1.1100	-1.1173	-1.1192	-1.1199	-1.1204	-1.1208	-1.1212
12	-1.0736	-1.1400	-1.1537	-1.1587	-1.1613	-1.1630	-1.1643	-1.1653

Percent Within Limits ( $P_L$ and $P_U$ )	Negative Values of Q ( $Q_L$ and $Q_U$ )							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
11	-1.0864	-1.1700	-1.1909	-1.1995	-1.2043	-1.2075	-1.2098	-1.2115
10	-1.0982	-1.2000	-1.2290	-1.2419	-1.2492	-1.2541	-1.2576	-1.2602
9	-1.1089	-1.2300	-1.2683	-1.2860	-1.2964	-1.3032	-1.3081	-1.3118
8	-1.1184	-1.2600	-1.3088	-1.3323	-1.3461	-1.3554	-1.3620	-1.3670
7	-1.1269	-1.2900	-1.3508	-1.3810	-1.3991	-1.4112	-1.4199	-1.4265
6	-1.1342	-1.3200	-1.3946	-1.4329	-1.4561	-1.4717	-1.4829	-1.4914
5	-1.1405	-1.3500	-1.4407	-1.4887	-1.5181	-1.5381	-1.5525	-1.5635
4	-1.1456	-1.3800	-1.4897	-1.5497	-1.5871	-1.6127	-1.6313	-1.6454
3	-1.1496	-1.4100	-1.5427	-1.6181	-1.6661	-1.6993	-1.7235	-1.7420
2	-1.1524	-1.4400	-1.6016	-1.6982	-1.7612	-1.8053	-1.8379	-1.8630
1	-1.1541	-1.4700	-1.6714	-1.8008	-1.8888	-1.9520	-1.9994	-2.0362

### REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM E178

Standard Practice for Dealing with Outlying Observations

### END OF ITEM C-110

## **Item P-101 Preparation/Removal of Existing Pavements**

### **DESCRIPTION**

**101-1** This item shall consist of preparation of existing pavement surfaces for overlay, surface treatments, removal of existing pavement, and other miscellaneous items. The work shall be accomplished in accordance with these specifications and the applicable plans.

### **EQUIPMENT AND MATERIALS**

**101-2.1 Equipment.** All equipment and materials shall be specified here and in the following paragraphs or approved by the Resident Project Representative (RPR). The equipment shall not cause damage to the pavement to remain in place.

**101-2.2 Bituminous concrete pavement.** Materials for bituminous concrete pavement shall be in accordance with Item P-401, Asphalt Mix Pavement.

**101-2.3 Emulsified asphalt.** The emulsified asphalt shall conform to the requirements of ASTM D 977 or ASTM D 2397.

**101-2.4 Herbicide.** Herbicide shall be a commercially produced product made specifically for killing plants and their root systems. Herbicides shall be packaged in standard sealed containers marked with the name of the material, the name of the manufacturer, the net quantity contained therein and shall be in accordance with the provisions of the Federal and State Rules and Regulations in effect at the time of delivery.

**101-2.5 Tack coat.** Tack coat shall be in accordance with Item P-603, Emulsified Asphalt Tack Coat.

**101-2.6 Surface treatment.** Surface treatment shall be in accordance with Item P-608, Emulsified Asphalt Seal Coat.

### **CONSTRUCTION**

#### **101-3.1 Removal of existing pavement.**

The Contractor's removal operation shall be controlled to not damage adjacent pavement structure, and base material, cables, utility ducts, pipelines, or drainage structures which are to remain under the pavement.

##### **a. Concrete pavement removal.**

Full depth saw cuts shall be made perpendicular to the slab surface. The Contractor shall saw through the full depth of the slab including any dowels at the joint, and remove the pavement. Where required, Contractor shall install new dowels as shown on the plans and per the specifications. The pavement inside the saw cut shall be removed by methods which will not cause distress in the pavement which is to remain in place. If the material is to be wasted on the airport site, or used in embankment, it shall be reduced to a maximum size of 24 inches in any direction. The material incorporated into embankments shall be placed as described in Item P-152, Excavation, Subgrade and Embankment. If the material cannot be incorporated into embankments, it shall be disposed of in accordance with paragraph 101-3.11. Every effort should be made by the Contractor to recycle or re-use the material in other projects. Concrete slabs

that are damaged by under breaking shall be removed and replaced as directed by the RPR. Sawcutting and removal of PCC pavement shall be included in the cost of PCC pavement removal.

The edge of existing concrete pavement against which new pavement abuts shall be protected from damage at all times. Spall and underbreak repair shall be in accordance with the plans. Any underlaying material that is to remain in place, shall be recompact and/or replaced as shown on the plans. Adjacent areas damaged during repair shall be repaired or replaced at the Contractor's expense.

#### **b. Asphalt pavement removal.**

Asphalt pavement to be removed shall be saw cut to the full depth of the asphalt pavement around the perimeter of the area to be removed if there will be no new pavement installed abutting the cut, or if new Portland cement concrete pavement will be installed abutting the cut. If there will be new asphalt pavement installed adjacent to the cut, the pavement shall be cut to the depth of the new adjacent layer/lift such that the joint for each layer/lift of pavement replacement is offset 1 foot from the joint in the preceding layer/lift. If the material is to be wasted on the airport site or incorporated into embankment, it shall be broken to a maximum size of 24 inches. The material incorporated into embankments shall be placed as described in Item P-152, Excavation, Subgrade and Embankment. If the material cannot be incorporated into embankments, it shall be disposed of in accordance with paragraph 101-3.11. Every effort should be made by the Contractor to recycle or re-use the material in other projects.

#### **c. Repair or removal of Base, Subbase, and/or Subgrade.**

All failed granular material including base course, subbase course, and subgrade shall be removed and repaired as shown on the plans or as directed by the RPR. Materials and methods of construction shall comply with the applicable sections of these specifications. Any damage caused by Contractor's removal process shall be repaired at the Contractor's expense. The quantity of granular material excavated shall be included and paid for as Unclassified Excavation in Item P-152, Excavation, Subgrade and Embankment.

### **101-3.2 Preparation of joints and cracks.**

Remove all vegetation and debris from cracks to a minimum depth of 1 inch (25 mm). If extensive vegetation exists, treat the specific area with a concentrated solution of a water-based herbicide approved by the RPR. Fill all cracks greater than ¼ inch (6 mm) wide with a crack sealant per ASTM D6690. The crack sealant, preparation, and application shall be compatible with the surface treatment/overlay to be used. To minimize contamination of the asphalt with the crack sealant, underfill the crack sealant a minimum of 1/8 inch (3 mm), not to exceed ¼ inch (6 mm). Any excess joint or crack sealer shall be removed from the pavement surface. Wider cracks (over 1 inch wide (25 mm)), and cracks with adjacent soft or sunken spots, shall be repaired or replaced in accordance with paragraph 101-3.4, unless otherwise directed by the RPR.

For cracks and joints which are to be filled with a mixture of emulsified asphalt and aggregate, the aggregate shall consist of limestone, volcanic ash, sand, or other material that will cure to form a hard substance. The combined gradation shall be as shown in the following table.

**Gradation**

Sieve Size	Percent Passing
No. 4 (4.75 mm)	100
No. 8 (2.36 mm)	90-100
No. 16 (1.18 mm)	65-90
No. 30 (600 µm)	40-60
No. 50 (300 µm)	25-42

Sieve Size	Percent Passing
No. 100 (150 $\mu$ m)	15-30
No. 200 (75 $\mu$ m)	10-20

Up to 3% cement can be added to accelerate the set time. The mixture shall not contain more than 20% natural sand without approval in writing from the RPR.

The proportions of asphalt emulsion and aggregate shall be determined in the field and may be varied to facilitate construction requirements. Normally, these proportions will be approximately one part asphalt emulsion to five parts aggregate by volume. The material shall be poured or placed into the joints or cracks and compacted to form a voidless mass. The joint or crack shall be filled to within +0 to -1/8 inches (+0 to -3 mm) of the surface. Any material spilled outside the width of the joint shall be removed from the pavement surface prior to constructing the overlay. Where concrete overlays are to be constructed, only the excess joint material on the pavement surface and vegetation in the joints need to be removed.

### **101-3.3 Removal of Foreign Substances/contaminates prior to overlay, seal-coat or remarking.**

Removal of foreign substances/contaminates from existing pavement that will affect the bond of the new treatment shall consist of removal of rubber, fuel spills, oil, crack sealer, at least 90% of paint, and other foreign substances from the surface of the pavement. Areas that require removal are designated on the plans and as directed by the RPR in the field during construction.

High-pressure water, heater scarifier (asphaltic concrete only), cold milling, rotary grinding, or sandblasting may be used. If chemicals are used, they shall comply with the state's environmental protection regulations. Removal methods used shall not cause major damage to the pavement, or to any structure or utility within or adjacent to the work area. Major damage is defined as changing the properties of the pavement, removal of asphalt causing the aggregate to ravel, or removing pavement over 1/8 inch (3 mm) deep. If it is deemed by the RPR that damage to the existing pavement is caused by operational error, such as permitting the application method to dwell in one location for too long, the Contractor shall repair the damaged area without compensation and as directed by the RPR.

Removal of foreign substances shall not proceed until approved by the RPR. Water used for high-pressure water equipment shall be provided by the Contractor at the Contractor's expense. No material shall be deposited on the pavement shoulders.

**101-3.4 Concrete and asphaltic concrete pavement repair.** Pavement repair operations shall not proceed until the herbicide manufacturer's instructions indicate that vegetation may be removed.

#### **a. Repair of PCC spalls with asphalt in areas to be overlaid.**

The Contractor shall repair all spalled concrete as shown on the plans or as directed by the RPR. The perimeter of the repair shall be saw cut a minimum of 4 inches (100 mm) outside the affected area and 2 inches (50 mm) deep. The deteriorated material shall be removed to a depth where the existing material is firm or cannot be easily removed with a geologist pick. The removed area shall be filled with asphalt mixture with aggregate sized appropriately for the depth of the patch. The material shall be compacted with equipment approved by the RPR until the material is dense and no movement or marks are visible. The material shall not be placed in lifts over 4 inches (100 mm) in depth. This method of repair applies only to pavement to be overlaid.

**b. Asphalt pavement repair.** Pavement repair shall be performed full depth or partial depth as designated on the plans. Additional pavement repair not shown where joints or cracks that are 1 1/2 inch wide or greater, are spalled, or where the surface is depressed adjacent to the joints and cracks shall also be repaired when so directed by the RPR.

**(1) Full depth repair of AC pavement.** The failed areas shall be removed as specified in paragraph 101-3.1b, and as shown on the plans. All failed material including surface, base course, subbase course, and subgrade shall be removed as directed by the RPR. Materials and methods of construction shall comply with the applicable sections of these specifications.

Full depth repair areas shall be removed by conventional excavating equipment or by milling. The method chosen by the Contractor shall not damage the existing pavement to remain.

Any excessive area that is removed due to the Contractor's choice of equipment, or replacement of damaged areas of existing pavement that are to remain, shall not be included in the measurement for payment. The Contractor shall repair the excess areas at no additional cost to the Owner. Prior to removal, Contractor shall saw cut vertical faces along all sides of the pavement repair area to a minimum depth of 2 inches. Removal of repair area may warrant using a deeper saw cut to avoid damage to remaining existing pavement.

Contractor shall compact the subgrade soil remaining in place in accordance with Item P-152. Placement and compaction of subbase and base courses shall be in accordance with their respective technical specification, P-154, P-208, P-209, etc.. The repair area shall be filled with bituminous concrete (Hot Mix Asphalt (HMA)) meeting the requirements of the technical specification as shown on the details. A bituminous tack coat shall be applied to the vertical faces of the repair area in accordance with Item P-603 prior to filling. The repair area shall be filled with bituminous concrete from the bottom in successive lifts not exceeding the thickness specified in the technical specification for HMA. The final lift shall be placed to a height above the surface elevation of the pavement such that when the asphalt is compacted, the compacted mix shall be even with, or slightly above, the existing pavement. The bituminous concrete shall be compacted with a vibratory steel-wheel roller to the satisfaction of the RPR. The roller shall have a minimum unsprung weight of 10 Tons. On the final lift, the loose asphalt shall be "pinched-in" from the edges of the repair area. On pavements which will receive a HMA overlay, excess asphalt which is greater than 1/8 inch above the surface, and asphalt which is placed on top of existing pavement adjacent to the repair area, shall be removed by milling to obtain a repair area with a surface that is flush with the adjacent pavement surface. On pavements which will not receive a bituminous overlay, excess asphalt which is greater than 1/8 inch above the surface, and asphalt which is placed on top of existing pavement adjacent to the repair area shall be removed by diamond grinding in accordance with paragraph 101-3.4.d(3). Removal of existing pavement by excavation or milling, the application of tack coat, placement of bituminous concrete and milling/diamond grinding will be considered a necessary part of the work and its costs shall be considered by the Contractor and included in the contract price for the pay items of work involved.

**(2) Partial depth repair of AC pavement.** Partial depth repair areas shall be removed by milling. The milling equipment shall be a self-powered machine operating a rotary cutter or revolving cutting tool and shall be capable of milling to the depth shown on the plans.

Any excessive area that is milled due to the Contractor choice of equipment, or replacement of damaged areas of existing pavement that are to remain shall not be included in the measurement for payment. The Contractor shall repair the excess areas at no additional cost to the Owner. Prior to removal, Contractor shall saw cut vertical faces along all sides of the pavement repair area to a minimum depth of 2 inches.

Existing pavement and the milled surface shall be cleaned upon completion of removal operations. The milled surface and vertical faces of the saw cuts shall be cleaned of all loose and latent material that would cause a poor bond between existing and new pavements.

The repair area shall be filled with bituminous concrete (Hot Mix Asphalt (HMA)) meeting the requirements of the technical specification as shown on the details. A bituminous tack coat shall be applied to the milled surface and vertical faces of the repair area in accordance with Item P-603 prior to



filling. The repair area shall be filled with bituminous concrete from the bottom in successive lifts not exceeding the thickness specified in the technical specification for HMA. The final lift shall be placed to a height above the surface elevation of the pavement such that when the asphalt is compacted, the compacted mix shall be even with, or slightly above, the existing pavement. The bituminous concrete shall be compacted with a vibratory steel-wheel roller to the satisfaction of the RPR. The roller shall have a minimum unsprung weight of 10 Tons. On the final lift, the loose asphalt shall be “pinched-in” from the edges of the repair area. On pavements which will receive a HMA overlay, excess asphalt which is greater than 1/8 inch above the surface, and asphalt which is placed on top of existing pavement adjacent to the repair area, shall be removed by milling to obtain a repair area with a surface that is flush with the adjacent pavement surface. On pavements which will not receive a bituminous overlay, excess asphalt which is greater than 1/8 inch above the surface, and asphalt which is placed on top of existing pavement adjacent to the repair area shall be removed by diamond grinding in accordance with paragraph 101-3.4.d(3). Removal of existing pavement by excavation or milling, the application of tack coat, placement of bituminous concrete and milling/diamond grinding will be considered a necessary part of the work and its costs shall be considered by the Contractor and included in the contract price for the pay items of work involved.

### **101-3.5 Cold milling.**

Milling shall be performed with a power-operated milling machine or grinder, capable of producing a uniform finished surface. The milling machine or grinder shall operate without tearing or gouging the underlying surface. The milling machine or grinder shall be equipped with grade and slope controls, and a positive means of dust control. All millings shall be removed and disposed of in accordance with paragraph 101-3.11. If the Contractor mills or grinds deeper or wider than the plans specify, the Contractor shall replace the material removed with new material at the Contractor’s Expense.

**a. Patching.** Patching shall be performed in accordance with paragraph 101-3.4.

**b. Profile milling.** Not used.

**c. Milling to depth.** Not used.

**d. Milling to remove delaminated pavement.** Not used.

**e. Clean-up.** The Contractor shall sweep the milled surface daily and immediately after the milling until all residual materials are removed from the pavement surface. The Contractor shall wet down the milled pavement and thoroughly sweep and/or blow the surface to remove loose residual material. Waste materials shall be collected and removed from the pavement surface and adjacent areas by sweeping or vacuuming.

**101-3.6. Preparation of asphalt pavement surfaces prior to surface treatment.** Existing asphalt pavements to be treated with a surface treatment shall be prepared as follows:

a. Patch asphalt pavement surfaces that have been softened by petroleum derivatives or have failed due to any other cause. Remove damaged pavement to the full depth of the damage and replace with new asphalt pavement similar to that of the existing pavement in accordance with paragraph 101-3.4b.

b. Repair joints and cracks in accordance with paragraph 101-3.2.

c. Remove oil or grease that has not penetrated the asphalt pavement by scrubbing with a detergent and washing thoroughly with clean water. After cleaning, treat these areas with an oil spot primer.

d. Clean pavement surface immediately prior to placing the surface treatment so that it is free of dust, dirt, grease, vegetation, oil or any type of objectionable surface film.

**101-3.7 Maintenance.** The Contractor shall perform all maintenance work necessary to keep the pavement in a satisfactory condition until the full section is complete and accepted by the RPR. The

surface shall be kept clean and free from foreign material. The pavement shall be properly drained at all times. If cleaning is necessary or if the pavement becomes disturbed, any work repairs necessary shall be performed at the Contractor's expense.

**101-3.8** Section not used.

**101-3.9** Section not used.

**101-3.10 Removal of Pipe, Structures and other Buried Items.**

**a. Removal of Tie Downs**

Tie Downs shall be removed where indicated on the plans.

**b. Loop Detectors**

Loop detectors shall be removed and replaced in kind where indicated on the plans.

**101-3.11 Spoil.** Spoil material generated from cold milling operations shall be disposed of off airport property. Every effort should be made by the Contractor to recycle or re-use the material in other projects.

Excess suitable material which cannot be incorporated in the work in accordance with Item P-152, Excavation, Subgrade and Embankment, and all other material shall be disposed of off airport property at a location selected by the contractor.

Prior to placing spoil off airport property, Contractor shall submit a "Spoil Deposition and Release" to the RPR. A sample form is contained in Attachment A to Section 70-08 – Safety and Security of these Specifications and shall be acceptable to the RPR prior to removing material from the work area.

No direct payment will be made for spoiling operations. The cost of spoiling material off-site shall be considered incidental to this Contract and the costs shall be included in the various pay items involved.

## **METHOD OF MEASUREMENT**

**101-4.1 Pavement removal.** The unit of measurement for pavement removal shall be the square yard. Separate measurement will be made for each type and depth of pavement removed by the Contractor. Any pavement removed outside the limits of removal because the pavement was damaged by negligence on the part of the Contractor shall not be included in the measurement for payment. No direct measurement or payment shall be made for saw cutting. Saw cutting shall be incidental to pavement removal.

**101-4.2 Joint and Crack Repair.** The unit of measurement for joint and crack repair shall be by the linear foot. Herbicide shall be incidental to Joint and Crack Repair and no additional measurement or payment will be made.

**101-4.3 Full depth Joint and Crack repair.** The unit of measurement for joint and crack repair shall be by the linear foot. Herbicide shall be incidental to Full depth Joint and Crack Repair and no additional measurement or payment will be made.

**101-4.4 Preparation of asphalt pavement surfaces prior to surface treatment.** Preparation of asphalt pavement surfaces prior to seal coat areas shall be incidental to Item P-608, and no additional measurement or payment will be made.

**101-4.5 Removal of Pipe, Structures and other Buried Items.** Removal of Aircraft Tie Downs and Loop Detectors shall be incidental to pavement removal, and no additional measurement or payment will be made.

### **BASIS OF PAYMENT**

**101-5.1 Payment.** Payment shall be made at contract unit price for the unit of measurement as specified above. This price shall be full compensation for furnishing all materials and for all preparation, hauling, and placing of the material and for all labor, equipment, tools, and incidentals necessary to complete this item.

Item P 101-5.1	Pavement Removal - per square yard
Item P 101-5.2	Joint and Crack Seal— per linear foot
Item P 101-5.3	Full depth Joint and Crack Repair – per square foot

### **REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

#### Advisory Circulars (AC)

AC 150/5380-6	Guidelines and Procedures for Maintenance of Airport Pavements.
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#### ASTM International (ASTM)

ASTM D6690	Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements
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### **END OF ITEM P-101**

## Item P-152 Excavation, Subgrade, and Embankment

### DESCRIPTION

**152-1.1** This item covers excavation, disposal, placement, and compaction of all materials within the limits of the work required to construct safety areas, runways, taxiways, aprons, and intermediate areas as well as other areas for drainage, building construction, parking, or other purposes in accordance with these specifications and in conformity to the dimensions and typical sections shown on the plans.

**152-1.2 Classification.** All material excavated shall be classified as defined below:

**a. Unclassified excavation.** Unclassified excavation shall consist of the excavation and disposal of all material, regardless of its nature.

**b. Borrow excavation.** Borrow excavation shall consist of approved material required for the construction of embankments or for other portions of the work in excess of the quantity of usable material available from required excavations. Borrow material shall be obtained from areas designated by the RPR within the limits of the airport property but outside the normal limits of necessary grading, or from areas outside the airport boundaries.

**152-1.3 Unsuitable excavation.** Materials containing vegetable or organic matter, such as muck, peat, organic silt, or sod shall be considered unsuitable for use in embankment construction. Material suitable for topsoil may be used for embankment slope when approved by the RPR.

### CONSTRUCTION METHODS

**152-2.1 General.** The suitability of material to be placed in embankments shall be subject to approval by the RPR. All unsuitable material shall be disposed of in accordance with paragraph 152-2.15. All waste areas shall be graded to allow positive drainage of the area and adjacent areas. The surface elevation of waste areas shall be specified on the plans or approved by the RPR.

When the Contractor's excavating operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued and the RPR notified per Section 70, paragraph 70-20. At the direction of the RPR, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation will be paid for as extra work.

Areas outside the limits of the pavement areas where the top layer of soil has become compacted by hauling or other Contractor activities shall be scarified and disked to a depth of 4 inches (100 mm), to loosen and pulverize the soil. Stones or rock fragments larger than 4 inches (100 mm) in their greatest dimension will not be permitted in the top 6 inches (150 mm) of the subgrade.

If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures, the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the RPR, who shall arrange for their removal if necessary. The Contractor, at their

own expense, shall satisfactorily repair or pay the cost of all damage to such facilities or structures that may result from any of the Contractor's operations during the period of the contract.

**a. Blasting.** Blasting shall not be allowed.

**152-2.2 Excavation.** No excavation shall be started until the work has been staked out by the Contractor and the RPR has obtained from the Contractor, the survey notes of the elevations and measurements of the ground surface. The Contractor and RPR shall agree that the original ground lines shown on the original topographic mapping are accurate, or agree to any adjustments made to the original ground lines.

Digital terrain model (DTM) files of the existing surfaces, finished surfaces and other various surfaces were used to develop the design plans.

Existing grades on the design cross sections or DTM's, where they do not match the locations of actual spot elevations shown on the topographic map, were developed by computer interpolation from those spot elevations. Prior to disturbing original grade, Contractor shall verify the accuracy of the existing ground surface by verifying spot elevations at the same locations where original field survey data was obtained as indicated on the topographic map. Contractor shall recognize that, due to the interpolation process, the actual ground surface at any particular location may differ somewhat from the interpolated surface shown on the design cross sections or obtained from the DTM's. Contractor's verification of original ground surface, however, shall be limited to verification of spot elevations as indicated herein, and no adjustments will be made to the original ground surface unless the Contractor demonstrates that spot elevations shown are incorrect. For this purpose, spot elevations which are within 0.1 foot (30 mm) of the stated elevations for ground surfaces, or within 0.04 foot (12 mm) for hard surfaces (pavements, buildings, foundations, structures, etc.) shall be considered "no change". Only deviations in excess of these will be considered for adjustment of the original ground surface. If Contractor's verification identifies discrepancies in the topographic map, Contractor shall notify the RPR in writing at least two weeks before disturbance of existing grade to allow sufficient time to verify the submitted information and make adjustments to the design cross sections or DTM's. Disturbance of existing grade in any area shall constitute acceptance by the Contractor of the accuracy of the original elevations shown on the topographic map for that area.

The grade shall be maintained so that the surface is well drained at all times.

When the volume of the excavation exceeds that required to construct the embankments to the grades as indicated on the plans, the excess shall be used to grade the areas of ultimate development or disposed as directed by the RPR. When the volume of excavation is not sufficient for constructing the embankments to the grades indicated, the deficiency shall be obtained from borrow areas.

**a. Selective grading.** When selective grading is indicated on the plans, the more suitable material designated by the RPR shall be used in constructing the embankment or in capping the pavement subgrade. If, at the time of excavation, it is not possible to place this material in its final location, it shall be stockpiled in approved areas until it can be placed. The more suitable material shall then be placed and compacted as specified. Selective grading shall be considered incidental to the work involved. The cost of stockpiling and placing the material shall be included in the various pay items of work involved.

**b. Undercutting.** Rock, shale, hardpan, loose rock, boulders, or other material unsatisfactory for safety areas, subgrades, roads, shoulders, or any areas intended for turf shall be excavated to a minimum depth of 12 inches (300 mm) below the subgrade or to the depth specified by the RPR. Muck, peat, matted roots, or other yielding material, unsatisfactory for subgrade foundation, shall be removed to the depth specified. Unsuitable materials shall be disposed off the airport. This excavated material shall be

paid for at the contract unit price per cubic yard for unclassified excavation. The excavated area shall be backfilled with P-209 Crushed Aggregate Base Course or with suitable material approved by the RPR and compacted to specified densities. The necessary backfill will constitute a part of the embankment. Where rock cuts are made, backfill with select material. Any pockets created in the rock surface shall be drained in accordance with the details shown on the plans. Undercutting will be paid as unclassified excavation.

**c. Over-break.** Over-break, including slides, is that portion of any material displaced or loosened beyond the finished work as planned or authorized by the RPR. All over-break shall be graded or removed by the Contractor and disposed of as directed by the RPR. The RPR shall determine if the displacement of such material was unavoidable and their own decision shall be final. Payment will not be made for the removal and disposal of over-break that the RPR determines as avoidable. Unavoidable over-break will be classified as "Unclassified Excavation."

**d. Removal of utilities.** The removal of existing structures and utilities required to permit the orderly progress of work will be accomplished by the Contractor, as indicated on the plans. All existing foundations shall be excavated at least 2 feet (60 cm) below the top of subgrade or as indicated on the plans, and the material disposed of as directed by the RPR. All foundations thus excavated shall be backfilled with suitable material and compacted as specified for embankment or as shown on the plans.

**152-2.3 Borrow excavation.** Borrow areas are not required.

**152-2.4 Drainage excavation.** Drainage excavation shall consist of excavating drainage ditches including intercepting, inlet, or outlet ditches; or other types as shown on the plans. The work shall be performed in sequence with the other construction. Ditches shall be constructed prior to starting adjacent excavation operations. All satisfactory material shall be placed in embankment fills; unsuitable material shall be placed in designated waste areas or as directed by the RPR. All necessary work shall be performed true to final line, elevation, and cross-section. The Contractor shall maintain ditches constructed on the project to the required cross-section and shall keep them free of debris or obstructions until the project is accepted.

**152-2.5 Preparation of cut areas or areas where existing pavement has been removed.** In those areas on which a subbase or base course is to be placed, cement stabilization shall be completed in accordance with Item P-156, Cement Treated Subgrade. Separate payment for cement stabilization shall be made under Item P-156, Cement Treated Subgrade.

**152-2.6 Preparation of embankment area.** All sod and vegetative matter shall be removed from the surface upon which the embankment is to be placed. The cleared surface shall be broken up by plowing or scarifying to a minimum depth of 6 inches (150 mm) and shall then be compacted per paragraph 152-2.10.

Sloped surfaces steeper than one (1) vertical to four (4) horizontal shall be plowed, stepped, benched, or broken up so that the fill material will bond with the existing material. When the subgrade is part fill and part excavation or natural ground, the excavated or natural ground portion shall be scarified to a depth of 12 inches (300 mm) and compacted as specified for the adjacent fill.

No direct payment shall be made for the work performed under this section. The necessary clearing and grubbing and the quantity of excavation removed will be paid for under the respective items of work.

**152-2.7 Control Strip.** The first half-day of construction of subgrade and/or embankment shall be considered as a control strip for the Contractor to demonstrate, in the presence of the RPR, that the materials, equipment, and construction processes meet the requirements of this specification. The sequence and manner of rolling necessary to obtain specified density requirements shall be determined. The maximum compacted thickness may be increased to a maximum of 12 inches (300 mm) upon the

Contractor's demonstration that approved equipment and operations will uniformly compact the lift to the specified density. The RPR must witness this demonstration and approve the lift thickness prior to full production.

Control strips that do not meet specification requirements shall be reworked, re-compacted, or removed and replaced at the Contractor's expense. Full operations shall not begin until the control strip has been accepted by the RPR. The Contractor shall use the same equipment, materials, and construction methods for the remainder of construction, unless adjustments made by the Contractor are approved in advance by the RPR.

**152-2.8 Formation of embankments.** The material shall be constructed in lifts as established in the control strip, but not less than 6 inches (150 mm) nor more than 12 inches (300 mm) of compacted thickness.

When more than one lift is required to establish the layer thickness shown on the plans, the construction procedure described here shall apply to each lift. No lift shall be covered by subsequent lifts until tests verify that compaction requirements have been met. The Contractor shall rework, re-compact and retest any material placed which does not meet the specifications.

The lifts shall be placed, to produce a soil structure as shown on the typical cross-section or as directed by the RPR. Materials such as brush, hedge, roots, stumps, grass and other organic matter, shall not be incorporated or buried in the embankment.

Earthwork operations shall be suspended at any time when satisfactory results cannot be obtained due to rain, freezing, or other unsatisfactory weather conditions in the field. Frozen material shall not be placed in the embankment nor shall embankment be placed upon frozen material. Material shall not be placed on surfaces that are muddy, frozen, or contain frost. The Contractor shall drag, blade, or slope the embankment to provide surface drainage at all times.

The material in each lift shall be within  $\pm 2\%$  of optimum moisture content before rolling to obtain the prescribed compaction. The material shall be moistened or aerated as necessary to achieve a uniform moisture content throughout the lift. Natural drying may be accelerated by blending in dry material or manipulation alone to increase the rate of evaporation.

The Contractor shall make the necessary corrections and adjustments in methods, materials or moisture content to achieve the specified embankment density.

The RPR will take samples of excavated materials which will be used in embankment for testing and develop a Moisture-Density Relations of Soils Report (Proctor) in accordance with ASTM D698. A new Proctor shall be developed for each soil type based on visual classification.

Density tests will be taken by the RPR for every 3,000 square yards of compacted embankment for each lift which is required to be compacted, or other appropriate frequencies as determined by the RPR. In no case shall less than 2 density tests be taken per lift.

If the material has greater than 30% retained on the 3/4-inch (19.0 mm) sieve, follow AASHTO T-180 Annex Correction of maximum dry density and optimum moisture for oversized particles.

Rolling operations shall be continued until the embankment is compacted to not less than 100% of maximum density for non-cohesive soils, and 95% of maximum density for cohesive soils as determined

by ASTM D1557. As used in this specification, "non-cohesive" shall mean those soils having a plasticity index (PI) of less than 3 as determined by ASTM D4318.

On all areas outside of the pavement areas, no compaction will be required on the top 3 inches (75 mm) which shall be prepared for a seedbed in accordance with Item T-901.

The in-place field density shall be determined in accordance with ASTM D1556, or ASTM 6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938. The RPR shall perform all density tests. If the specified density is not attained, the area represented by the test or as designated by the RPR shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached.

Compaction areas shall be kept separate, and no lift shall be covered by another lift until the proper density is obtained.

During construction of the embankment, the Contractor shall route all construction equipment evenly over the entire width of the embankment as each lift is placed. Lift placement shall begin in the deepest portion of the embankment fill. As placement progresses, the lifts shall be constructed approximately parallel to the finished pavement grade line.

When rock, concrete pavement, asphalt pavement, and other embankment material are excavated at approximately the same time as the subgrade, the material shall be incorporated into the outer portion of the embankment and the subgrade material shall be incorporated under the future paved areas. Stones, fragmentary rock, and recycled pavement larger than 4 inches (100 mm) in their greatest dimensions will not be allowed in the top 12 inches (300 mm) of the subgrade. Rockfill shall be brought up in lifts as specified or as directed by the RPR and the finer material shall be used to fill the voids forming a dense, compact mass. Rock, cement concrete pavement, asphalt pavement, and other embankment material shall not be disposed of except at places and in the manner designated on the plans or by the RPR.

When the excavated material consists predominantly of rock fragments of such size that the material cannot be placed in lifts of the prescribed thickness without crushing, pulverizing or further breaking down the pieces, such material may be placed in the embankment as directed in lifts not exceeding 2 feet (60 cm) in thickness. Each lift shall be leveled and smoothed with suitable equipment by distribution of spalls and finer fragments of rock. The lift shall not be constructed above an elevation 4 feet (1.2 m) below the finished subgrade.

There will be no separate measurement of payment for compacted embankment. All costs incidental to placing in lifts, compacting, discing, watering, mixing, sloping, and other operations necessary for construction of embankments will be included in the contract price for excavation, borrow, or other items.

**152-2.9 Proof rolling.** The purpose of proof rolling the subgrade is to identify any weak areas in the subgrade and not for compaction of the subgrade. After compaction is completed, the subgrade area shall be proof rolled with a 20 ton (18.1 metric ton) Tandem axle Dual Wheel Dump Truck loaded to the legal limit with tires inflated to [ 80/100/150 psi in the presence of the RPR. Apply a minimum of 75% coverage, or as specified by the RPR, under pavement areas. A coverage is defined as the application of one tire print over the designated area. Soft areas of subgrade that deflect more than 1 inch (25 mm) or show permanent deformation greater than 1 inch (25 mm) shall be removed and replaced with suitable material or reworked to conform to the moisture content and compaction requirements in accordance with these specifications. Removal and replacement of soft areas is incidental to this item.



**152-2.10 Compaction requirements.** The subgrade under areas to be paved shall be compacted to a depth of 12 inches (300 mm) and to a density of not less than 95 percent of the maximum dry density as determined by ASTM D1557. The subgrade in areas outside the limits of the pavement areas shall be compacted to a depth of 12 inches (300 mm) and to a density of not less than 95 percent of the maximum density as determined by ASTM D1557.

The material to be compacted shall be within  $\pm 2\%$  of optimum moisture content before being rolled to obtain the prescribed compaction (except for expansive soils). When the material has greater than 30 percent retained on the  $\frac{3}{4}$  inch (19.0 mm) sieve, follow the methods in ASTM D698 and the procedures in AASHTO T180 Annex for correction of maximum dry density and optimum moisture for oversized particles. Tests for moisture content and compaction will be taken at a minimum of 3,000 S.Y. of subgrade. All quality assurance testing shall be done by the RPR.

The in-place field density shall be determined in accordance with ASTM D1556, or ASTM D6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938 within 12 months prior to its use on this contract. The gage shall be field standardized daily.

Maximum density refers to maximum dry density at optimum moisture content unless otherwise specified.

If the specified density is not attained, the entire lot shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached.

All cut-and-fill slopes shall be uniformly dressed to the slope, cross-section, and alignment shown on the plans or as directed by the RPR and the finished subgrade shall be maintained.

**152-2.11 Finishing and protection of subgrade.** Finishing and protection of the subgrade is incidental to this item. Grading and compacting of the subgrade shall be performed so that it will drain readily. All low areas, holes or depressions in the subgrade shall be brought to grade. Scarifying, blading, rolling and other methods shall be performed to provide a thoroughly compacted subgrade shaped to the lines and grades shown on the plans. All ruts or rough places that develop in the completed subgrade shall be graded, re-compacted, and retested. The Contractor shall protect the subgrade from damage and limit hauling over the finished subgrade to only traffic essential for construction purposes.

The Contractor shall maintain the completed course in satisfactory condition throughout placement of subsequent layers. No subbase, base, or surface course shall be placed on the subgrade until the subgrade has been accepted by the RPR.

**152-2.12 Haul.** All hauling will be considered a necessary and incidental part of the work. The Contractor shall include the cost in the contract unit price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work.

The Contractor's equipment shall not cause damage to any excavated surface, compacted lift or to the subgrade as a result of hauling operations. Any damage caused as a result of the Contractor's hauling operations shall be repaired at the Contractor's expense.

The Contractor shall be responsible for providing, maintaining and removing any haul roads or routes within or outside of the work area, and shall return the affected areas to their former condition, unless otherwise authorized in writing by the Owner. No separate payment will be made for any work or materials associated with providing, maintaining and removing haul roads or routes.

**152-2.13 Surface Tolerances.** In those areas on which a subbase or base course is to be placed, the surface shall be tested for smoothness and accuracy of grade and crown. Any portion lacking the required smoothness or failing in accuracy of grade or crown shall be scarified to a depth of at least 3 inches (75 mm), reshaped and re-compacted to grade until the required smoothness and accuracy are obtained and approved by the RPR. The Contractor shall perform all final smoothness and grade checks in the presence of the RPR. Any deviation in surface tolerances shall be corrected by the Contractor at the Contractor's expense.

- a. Smoothness.** The finished surface shall not vary more than  $\pm 1/2$  inch (12 mm) when tested with a 12-foot (3.7-m) straightedge applied parallel with and at right angles to the centerline. The straightedge shall be moved continuously forward at half the length of the 12-foot (3.7-m) straightedge for the full length of each line on a 50-foot (15-m) grid.
- b. Grade.** The grade and crown shall be measured on a 50-foot (15-m) grid and shall be within  $\pm 0.05$  feet (15 mm) of the specified grade.

On safety areas, turfed areas and other designated areas within the grading limits where no subbase or base is to be placed, grade shall not vary more than 0.10 feet (30 mm) from specified grade. Any deviation in excess of this amount shall be corrected by loosening, adding or removing materials, and reshaping.

**152-2.14 Topsoil.** Not used.

**152-2.15 Spoil.** All excess material from excavation, subgrade and embankment operations shall be disposed of off airport property.

Prior to placing spoil off airport property, Contractor shall submit a "Spoil Deposition and Release" to the RPR. A sample form is contained in Attachment A to Section 70-08 of these Specifications and shall be acceptable to the RPR prior to removing material from the work area.

No direct payment will be made for spoiling operations. The cost of spoiling material off-site shall be considered incidental to this Contract and the costs shall be included in the various pay items involved.

## METHOD OF MEASUREMENT

**152-3.1 Unclassified Excavation.** Measurement for payment specified by the cubic yard shall be computed by comparison of digital terrain model (DTM) surfaces used for the computation of neat line design quantities. The surfaces shall be the original ground line established by field cross-sections and the final theoretical surface shown on the plans, subject to verification by the RPR.

Prior to determination of final quantities, the Engineer will field verify that the Contractor has met grading tolerances by means of field cross sections. Field cross sections will be taken randomly at intervals not exceeding 500 feet, however, a minimum of three sections will be taken for each baseline or centerline.

If the final grades are in tolerance and acceptable to the Engineer and Owner, then no adjustments will be made to the neat line quantities.

If the final grades are not in tolerance, but the deviation is acceptable to the Engineer and Owner, then adjustments will be made to the neat line quantities based on a final topographic survey or final cross sections.

**If the final grades are not in tolerance and are not acceptable to the Engineer and Owner, then the Contractor shall regrade the areas that are out of tolerance. Upon completion of regrading**

**operations, Engineer will field verify that the Contractor has met grading tolerances as stated above.**

The quantity of unclassified excavation to be paid for shall be the number of cubic yards measured in its original position. Measurement shall not include the quantity of materials excavated without authorization beyond normal slope lines, or the quantity of material used for purposes other than those directed.

### **BASIS OF PAYMENT**

**152-4.1 Payment.** Payment shall be made at contract unit price for the unit of measurement as specified above. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-152-4.1	Unclassified Excavation - per cubic yard
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### **REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

American Association of State Highway and Transportation Officials (AASHTO)

AASHTO T-180	Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop
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ASTM International (ASTM)

ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft <sup>3</sup> (600 kN-m/m <sup>3</sup> ))
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ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
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ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft <sup>3</sup> (2700 kN-m/m <sup>3</sup> ))
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ASTM D6938	Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
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Advisory Circulars (AC)

AC 150/5370-2	Operational Safety on Airports During Construction Software
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Software

FAARFIELD – FAA Rigid and Flexible Iterative Elastic Layered Design

U.S. Department of Transportation

FAA RD-76-66	Design and Construction of Airport Pavements on Expansive Soils
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**END OF ITEM P-152**

## Item P-154 Subbase Course

### DESCRIPTION

**154-1.1** This item shall consist of a subbase course composed of granular materials constructed on a prepared subgrade or underlying course in accordance with these specifications, and in conformity with the dimensions and typical cross-section shown on the plans.

### MATERIALS

**154-2.1 Materials.** The subbase material shall consist of hard durable particles or fragments of granular aggregates. The material may be obtained from gravel pits, stockpiles, or may be produced from a crushing and screening plant with proper blending. The materials from these sources shall meet the requirements for gradation, quality, and consistency. The material shall be free from vegetative matter, excessive amounts of clay, and other objectionable substances; uniformly blended; and be capable of being compacted into a dense, stable subbase.

The subbase material shall exhibit a California Bearing Ratio (CBR) value of at least 20 when tested in accordance with ASTM D1883. The subbase material shall meet the gradation specified in the table below.

**Subbase Gradation Requirements**

Sieve designation	Percentage by weight passing sieves		Contractor's Final Gradation	Job Control Grading Band Tolerances <sup>1</sup> (Percent)
	Subbase Aggregate	Recycled pavement (RAP or RCO)		
3 inch (75 mm)	100			0
1 1/2 inch (37.5 mm)		100		0
3/4 inch (19.0 mm)	70-100	70-100		±10
No. 10 (2.00 mm)	20-100	20-100		±10
No. 40 (425 µm)	5-60	5-60		±5
No. 200 (75 µm)	0-15	0-15		±5

<sup>1</sup>The "Job Control Grading Band Tolerances" shall be applied to "Contractor's Final Gradation" to establish the job control grading band.

The portion of the material passing the No. 40 (425  $\mu$ m) sieve shall have a liquid limit of not more than 25 and a plasticity index of not more than six (6) when tested in accordance with ASTM D4318.

#### **154-2.2 Sampling and testing.**

**a. Aggregate base materials.** Samples shall be taken by the Contractor per ASTM D75 for initial aggregate subbase requirements and gradation. Material shall meet the requirements in paragraphs 154-2.1. The Contractor shall submit to the Resident Project Representative (RPR) certified test results showing that the aggregate meets the Material requirements of this section. Tests shall be representative of the material to be used for the project.

**b. Gradation requirements.** The Contractor shall take at least one aggregate subbase sample per day in the presence of the RPR to check the final gradation. Samples shall be taken from the in-place, un-compacted material at sampling locations determined by the RPR on a random basis per ASTM D3665. Sampling shall be per ASTM D75 and tested per ASTM C136 and ASTM C117. Results shall be furnished to the RPR by the Contractor each day during construction. Material shall meet the requirements in paragraph 154-2.1.

**154-2.3 Separation Geotextile.** Not used.

**154-2.4 Geogrid.** Geogrid shall be Tensar TX-160 or approved equal.

### **CONSTRUCTION METHODS**

**154-3.1 General.** The subbase course shall be placed where designated on the plans or as directed by the RPR. The material shall be shaped and thoroughly compacted within the tolerances specified.

Granular subbases which, due to grain sizes or shapes, are not sufficiently stable to support the construction equipment without movement, shall be mechanically modified to the depth necessary to provide stability as directed by the RPR. The mechanical modification shall include the addition of a fine-grained medium to bind the particles of the subbase material sufficiently to furnish a bearing strength, so the course will not deform under construction equipment traffic.

**154-3.2 Preparing underlying course.** Prior to constructing the subbase course, clean the underlying course or subgrade of all foreign substances. The surface of the underlying course or subgrade shall meet specified compaction and surface tolerances in accordance with Item P-152. Correct ruts, soft yielding spots in the underlying courses, and subgrade areas having inadequate compaction and/or deviations of the surface from the specified requirements, by loosening and removing soft or unsatisfactory material, adding approved material, reshaping to line and grade, and recompacting to specified density requirements. The finished underlying course shall not be disturbed by traffic or other operations and shall be maintained in a satisfactory condition until the overlying course is placed. The underlying course shall be checked and accepted by the RPR before placing and spreading operations are started.

To protect the subgrade and to ensure proper drainage, spreading of the subbase shall begin along the centerline of the pavement on a crowned section or on the high side of pavements with a one-way slope.

**154-3.3 Control Strip.** The first half-day of subbase construction shall be considered as a control strip for the Contractor to demonstrate, in the presence of the RPR, that the materials, equipment, and construction processes meet the requirements of this specification. The sequence and manner of rolling necessary to obtain specified density requirements shall be determined. The maximum compacted thickness may be increased to a maximum of 12 inches (300 mm) upon the Contractor's demonstration that approved equipment and operations will uniformly compact the lift to the specified density. The RPR must witness this demonstration and approve the lift thickness prior to full production.

Control strips that do not meet specification requirements shall be reworked, re-compacted, or removed and replaced at the Contractor's expense. Full operations shall not begin until the control strip has been accepted by the RPR. The Contractor shall use the same equipment, materials, and construction methods for the remainder of construction, unless adjustments made by the Contractor are approved in advance by the RPR.

**154-3.4 Placement.** The material shall be placed and spread on the prepared underlying layer by spreader boxes or other devices as approved by the RPR, to a uniform thickness and width. The equipment shall have positive thickness controls to minimize the need for additional manipulation of the material. Dumping from vehicles that require re-handling shall not be permitted. Hauling over the uncompacted base course shall not be permitted. The material shall not be placed when the underlying course is soft or yielding.

The material shall meet gradation and moisture requirements prior to compaction. Material may be free-draining and the minimum moisture content shall be established for placement and compaction of the material.

The material shall be constructed in lifts as established in the control strip, but not less than 4 inches (100 mm) nor more than 12 inches (300 mm) of compacted thickness.

When more than one lift is required to establish the layer thickness shown on the plans, the construction procedure described here shall apply to each lift. No lift shall be covered by subsequent lifts until tests verify that compaction requirements have been met. The Contractor shall rework, re-compact and retest any material placed which does not meet the specifications.

**154-3.5 Compaction.** The subbase material shall be compacted, adjusting moisture as necessary, to be within  $\pm 2\%$  of optimum moisture. The field density of the compacted material shall be at least 100% of the maximum density as specified in paragraph 154-3.9a. If the specified density is not attained, the area of the lift represented by the test shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached. Maximum density refers to maximum dry density at optimum moisture content unless otherwise specified.

**154-3.6 Weather limitation.** Material shall not be placed unless the ambient air temperature is at least 40°F (4°C) and rising. Work on subbase course shall not be conducted when the subgrade is wet or frozen or the subbase material contains frozen material.

**154-3.7 Maintenance.** No base or surface course shall be placed on the subbase until the subbase has been accepted by the RPR. The Contractor shall maintain the completed course in satisfactory condition throughout placement of subsequent layers. When material has been exposed to excessive rain, snow, or freeze-thaw conditions, the Contractor shall verify that materials still meet all specification requirements before placement of additional material. Equipment may be routed over completed sections of subbase course, provided the equipment does not damage the subbase course and the equipment is routed over the full width of the completed subbase course. Any damage to the subbase course from routing equipment over the subbase course shall be repaired by the Contractor at their expense.

**154-3.8 Surface tolerance.** In those areas on which a subbase or base course is to be placed, the surface shall be tested for smoothness and accuracy of grade and crown. Any portion lacking the required smoothness or failing in accuracy of grade or crown shall be scarified to a depth of at least 3 inches (75 mm), reshaped and re-compacted to grade until the required smoothness and accuracy are obtained and approved by the RPR. The Contractor shall perform all final smoothness and grade checks in the presence of the RPR. Any deviation in surface tolerances shall be corrected by the Contractor at the Contractor's expense.

**a. Smoothness.** The finished surface shall not vary more than  $\pm 1/2$  inch (12 mm) when tested with a 12-foot (3.7-m) straightedge applied parallel with and at right angles to the centerline. The straightedge

shall be moved continuously forward at half the length of the 12-foot (3.7-m) straightedge for the full length of each line on a 50-foot (15-m) grid.

**b. Grade.** The grade and crown shall be measured on a 50-foot (15-m) grid and shall be within +/- 0.05 feet (15 mm) of the specified grade.

**154-3.9 Acceptance sampling and testing.** The aggregate base course shall be accepted for density and thickness on an area basis. Two test shall be made for density and thickness for each 1200 square yards (1000 square meters). Sampling locations will be determined on a random basis per ASTM D3665.

**a. Density.** The RPR shall perform all density tests.

Each area shall be accepted for density when the field density is at least 100% of the maximum density of laboratory specimens compacted and tested per ASTM D1557. The in-place field density shall be determined per ASTM D1556 or ASTM D6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938. If the specified density is not attained, the area represented by the failed test shall be reworked and/or recompacted and two additional random tests made. This procedure shall be followed until the specified density is reached. Maximum density refers to maximum dry density at optimum moisture content unless otherwise specified.

When the material has greater than 30 percent retained on the 3/4 inch (19.0 mm) sieve, use methods in ASTM D1557 and the procedures in AASHTO T180 Annex for correction of maximum dry density and optimum moisture for oversized particles.

**b. Thickness.** The thickness of the base course shall be within +0 and -1/2 inch (12 mm) of the specified thickness as determined by depth tests taken by the Contractor in the presence of the RPR for each area. Where the thickness is deficient by more than 1/2-inch (12 mm), the Contractor shall correct such areas at no additional cost by scarifying to a depth of at least 3 inches (75 mm), adding new material of proper gradation, and the material shall be blended and recompacted to grade. The Contractor shall replace, at his expense, base material where depth tests have been taken.

Contractor may check thickness and grade by survey provided a survey is performed on the approved subgrade prior to placing subbase material. The survey shall be along centerline, or ridge lines at 50-foot intervals with elevations taken along sections at 50-foot intervals. In addition, elevations shall be taken at all grade breaks and vertical curves. Contractor shall survey the finished surface of the subbase course at the same locations that the survey was taken on the subgrade. Contractor shall provide an analysis of the difference in elevations between the two surveys to the RPR for approval.

Alternate methods of checking the fine grade may be used only when authorized by the RPR.

**154-3.10 Fill placement over geogrid.** Backfill material shall be placed in lifts and compacted as directed under Section P-152 or P-209, as shown on the plans. Backfill shall be placed, spread, and compacted in such a manner that minimizes the development of wrinkles in and/or movement of the geogrid.

Tracked construction equipment shall not be operated directly on the geogrid. A minimum fill thickness of 6 inches is required prior to operation of tracked vehicles over the geogrid. Turning of tracked vehicles should be kept to a minimum to prevent tracks from displacing the fill and damaging the geogrid. Rubber-tired equipment may pass over polyolefin geogrid reinforcement at slow speeds, less than 10 mph. Sudden braking and sharp turning shall be avoided. Rubber-tired equipment shall not pass over polyester geogrid reinforcement. A minimum fill thickness of 6 inches is required prior to operation of rubber-tired equipment over polyester geogrid reinforcement.

### METHOD OF MEASUREMENT

**154-4.1** Geogrid shall be measured by the number of square yards of material placed and accepted by the RPR as complying with the plans and specifications excluding seam overlaps and edge anchoring.

### BASIS OF PAYMENT

**154-4.1** Payment shall be made at the contract unit price per square yard for geogrid. The price shall be full compensation for furnishing all labor, equipment, material, anchors, and necessary incidentals.

Payment will be made under:

Item P-154-4.1	Geogrid - per square yard
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### REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM C117	Standard Test Method for Materials Finer than 75- $\mu$ m (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM D75	Standard Practice for Sampling Aggregates
ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft <sup>3</sup> (600 kN-m/m <sup>3</sup> ))
ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft <sup>3</sup> (2,700 kN-m/m <sup>3</sup> ))
ASTM D2487	Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D4253	Standard Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table
ASTM D4759	Practice for Determining the Specification Conformance of Geosynthetics
ASTM D4318	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D6938	Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
American Association of State Highway and Transportation Officials (AASHTO)	
M 288	Geotextile Specification for Highway Applications

### END OF ITEM P-154



## Item P-156 Cement Treated Subgrade

### DESCRIPTION

**156-1.1** This item shall consist of constructing one or more courses of a mixture of soil, stabilizer, and water in accordance with this specification, and in conformity with the lines, grades, thickness, and typical cross-sections shown on the plans.

### MATERIALS

**156-2.1 Cement.** Cement shall conform to the requirements of ASTM C150, Type I, IA, II, or IIA or ASTM C595, Type IS, IL, IP, or IS(A).

**156-2.2 Water.** Water used in mixing or curing shall be from potable water sources. Other sources shall be tested in accordance with ASTM C1602 prior to use.

**156-2.3 Soil.** The soil for this work shall consist of on-site materials free of roots, sod, weeds, and stones larger than 2-1/2 inches (60 mm) and have a sulfate content of less than 0.3%.

### COMPOSITION

**156-3.1 Soil-cement mixture.** Cement shall be added at an application rate of 5 percent of dry unit weight of soil.

**156-3.2 Tolerances.** At final compaction, the cement and water content for each course of subgrade treatment shall conform to the following tolerances:

#### Tolerances

Material/Properties	Target	Tolerance	Specifications
Cement	5%	0 to +1%	% Total Dry Materials
Moisture Content	Optimum +2%	0 to +1%	ASTM D1557

### WEATHER LIMITATIONS

**156-4.1 Weather limitation.** Do not construct subgrade when weather conditions detrimentally affect the quality of the materials. Do not apply cement unless the air temperature is at least 40°F (4°C) and rising. Do not apply cement to soils that are frozen or contain frost. Do not apply cement when conditions are too windy to allow even distribution of the cement to the subgrade. If the air temperature falls below 35°F (2°C), protect completed treated areas against freezing. Remove and replace any damaged portion of the completed treated area with new material in accordance with this specification.

## EQUIPMENT

**156-5.1 Equipment.** All equipment necessary to grade, scarify, spread, mix and compact the material shall be provided. The Resident Project Representative (RPR) must approve the Contractor's proposed equipment prior to the start of the treatment.

## CONSTRUCTION METHODS

**156-6.1 General.** This specification is to construct a subgrade consisting of a uniform cement mixture which shall be free from loose or segregated areas. The subgrade shall be of uniform density and moisture content, well mixed for its full depth and have a smooth surface suitable for placing subsequent courses. The Contractor shall be responsible for meeting the above requirements.

Prior to any treatment, the subgrade shall be constructed as specified in Item P-152, Excavation, Subgrade and Embankment, and shaped to conform to the typical sections, lines, and grades as shown on the plans.

The mixing machine must give visible indication at all times that it is cutting, pulverizing and mixing the material uniformly to the proper depth over the full width of the cut.

**156-6.2 Application.** Cement shall be uniformly spread only over an area where the initial mixing operations and compaction can be completed during the same workday. The cement shall not be applied when wind conditions are detrimental to proper application. A motor grader shall not be used to spread the lime. Adequate moisture shall be added to the cement/soil mixture to maintain the proper moisture content. Materials shall be handled, stored, and applied in accordance with all federal, state, and local requirements.

**156-6.3 Mixing Procedure.** The full depth of the treated subgrade shall be mixed with equipment as approved by the RPR. Cement shall not be left exposed for more than one (1) hour after distribution. Mixing and pulverization shall continue until the soil cement mixture contains no clods greater than 1-1/2 inches (38 mm) in size. Final moisture content of the mix shall be determined by the Contractor immediately prior to compaction in accordance with ASTM D2216 or ASTM D4959.

**156-6.4 Control Strip.** The first half-day of construction shall be considered the control strip. The Contractor shall demonstrate, in the presence of the RPR, that the materials, equipment, and construction processes meet the requirements of the specification. The sequence and manner of rolling necessary to obtain specified density requirements shall be determined. Control strips that do not meet specification requirements shall be reworked, re-compacted, or removed and replaced at the Contractor's expense. Full operations shall not continue until the control strip has been accepted by the RPR. Upon acceptance of the control strip by the RPR, the Contractor shall use the same equipment, materials, and construction methods for the remainder of construction, unless adjustments made by the Contractor are approved in advance by the RPR.

**156-6.5 Treatment Application and Depth Checks.** The amount of cement applied shall be monitored by the Contractor to assure that no less than the amount of cement required by the mix design is applied. The depth of stabilization shall be measured by the Contractor no less than 2 tests per day of material placed; test shall be witnessed by the RPR. Measurements shall be made in test holes excavated to show the full depth of mixing.

**156-6.6 Compaction.** The moisture content shall be within the tolerance as specified in paragraph 156-3.2. The field density of the compacted mixture shall be at least 95% of the maximum density as specified in paragraph 156-6.10. Compaction of the soil/cement mixture shall begin within 30 minutes after mixing the cement into the subgrade. All compaction operations shall be completed within 2 hours from the start of mixing.

Perform in-place density test immediately after completion of compaction to determine degree of compaction. If the material fails to meet the density requirements, compaction shall continue or the material shall be removed and replaced. Maximum density refers to maximum dry density at optimum moisture content unless otherwise specified.

**156-6.7 Finishing and curing.** After the final lift or course of treated subgrade has been compacted, it shall be brought to the required lines and grades in accordance with the typical sections. Finished portions of treated subgrade shall be protected to prevent equipment from marring, permanently deforming, or damaging completed work.

Not later than 24 hours after completion of final finishing, the surface shall be cured by application of a curing compound or other moisture retention methods as approved by the RPR.

Sufficient protection from freezing shall be provided for at least 7 days after its construction or as approved by the RPR.

**156-6.8 Maintenance.** The Contractor shall maintain the entire treated subgrade in good condition from the start of work until all the work has been completed, cured, and accepted by the RPR. When material has been exposed to excessive rain, snow, or freeze-thaw conditions, prior to placement of additional material, the Contractor shall verify that materials still meets all specification requirements. The cost shall be incidental to this item.

**156-6.9 Surface tolerance.** In those areas on which a subbase or base course is to be placed, the surface shall be tested for smoothness and accuracy of grade and crown. Any portion lacking the required smoothness or failing in accuracy of grade or crown shall be scarified to a depth of at least 3 inches (75 mm), reshaped and re-compacted to grade until the required smoothness and accuracy are obtained and approved by the RPR. The Contractor shall perform all final smoothness and grade checks in the presence of the RPR. Any deviation in surface tolerances shall be corrected by the Contractor at the Contractor's expense.

**a. Smoothness.** The finished surface shall not vary more than  $\pm 1/2$  inch (12 mm) when tested with a 12-foot (3.7-m) straightedge applied parallel with and at right angles to the centerline. The straightedge shall be moved continuously forward at half the length of the 12-foot (3.7-m) straightedge for the full length of each line on a 50-foot (15-m) grid.

**b. Grade.** The grade and crown shall be measured on a 50-foot (15-m) grid and shall be within  $\pm 0.05$  feet (15 mm) of the specified grade.

**156-6.10 Acceptance sampling and testing.** Aggregate base course shall be accepted for density and thickness on an area basis. Testing frequency shall be a minimum of one (1) compaction and thickness test per 1,000 square yards of stabilized subgrade, but not less than four (4) tests per day of production. Sampling locations will be determined on a random basis per ASTM D3665.

**a. Density.** All testing shall be done by the RPR.

The field density of the compacted mixture shall be at least 95% of the maximum density as determined by ASTM D558. The in-place field density shall be determined in accordance with ASTM D6938, Procedure A, direct transmission method. The in-place moisture content shall be determined in accordance with ASTM D2216. If the material fails to meet the density requirements, compaction shall continue or the material shall be removed and replaced. Maximum density refers to maximum dry density at optimum moisture content unless otherwise specified.

**b. Thickness.** The thickness of the base course shall be within  $+0$  and  $-1/2$  inch (12 mm) of the specified thickness as determined by depth tests taken by the Contractor in the presence of the RPR for each subplot. Where the thickness is deficient by more than  $1/2$ -inch (12 mm), the material shall be removed to full depth and replaced, at Contractor's expense.

### METHOD OF MEASUREMENT

**156-7.1** The amount of cement treated subgrade shall be based on the number of square yards complete and accepted.

**156-7.2** The amount of cement used is based upon an application rate as specified in paragraph 156-3.1. The amount of cement shall be paid by the number of tons of cement used in the completed and accepted work.

### BASIS OF PAYMENT

**156-8.1** Payment for placement shall be made at the contract unit price per square yard for the cement treated subgrade for the thickness specified. The price shall be full compensation for all preparation, delivering, placing and mixing these materials, and all labor, equipment, tools and incidentals necessary to complete this item.

**156-8.2** Payment for cement shall be made at the contract unit price per ton for the cement. The price shall be full compensation for all preparation, delivering, placing and mixing these materials, and all labor, equipment, tools and incidentals necessary to complete this item.

Payment will be made under:

Item P 156-8.1	Operation/Treatment for Cement treated subgrade - per square yard
Item P 156-8.2	Cement for Cement treated subgrade - per ton

### REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM C150	Standard Specification for Portland Cement
ASTM C595	Standard Specification for Blended Hydraulic Cements
ASTM C1602	Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete
ASTM D558	Standard Test Methods for Moisture-Density (Unit Weight) Relations of Soil-Cement Mixtures
ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft <sup>3</sup> (2,700 kN-m/m <sup>3</sup> ))
ASTM D1663	Standard Test Methods for Compressive Strength of Molded Soil-Cement Cylinders
ASTM D2216	Test Methods for Laboratory Determination of Water (Moisture) Soil and Rock by Mass

ASTM D2487	Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D4318	Standard Test Methods for Liquid Limit, Plastic Limit and Plasticity Index of Soils
ASTM D4959	Standard Test Method for Determination of Water Content of Soil by Direct Heating
ASTM D6938	Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

**END OF ITEM P-156**

## Item P-209 Crushed Aggregate Base Course

### DESCRIPTION

**209-1.1** This item consists of a base course composed of crushed aggregate base constructed on a prepared course in accordance with these specifications and in conformity to the dimensions and typical cross-sections shown on the plans.

### MATERIALS

**209-2.1 Crushed aggregate base.** Crushed aggregate shall consist of clean, sound, durable particles of crushed stone or crushed gravel and shall be free from coatings of clay, silt, organic material, clay lumps or balls or other deleterious materials or coatings. The method used to produce the crushed gravel shall result in the fractured particles in the finished product as consistent and uniform as practicable. Fine aggregate portion, defined as the portion passing the No. 4 (4.75 mm) sieve shall consist of fines from the coarse aggregate crushing operation. The fine aggregate shall be produced by crushing stone or crushed gravel that meet the coarse aggregate requirements for wear and soundness. Aggregate base material requirements are listed in the following table.

**Crushed Aggregate Base Material Requirements**

Material Test	Requirement	Standard
<b>Coarse Aggregate</b>		
Resistance to Degradation	Loss: 45% maximum	ASTM C131
Soundness of Aggregates by Use of Sodium Sulfate <b>or</b> Magnesium Sulfate	Loss after 5 cycles: 12% maximum using Sodium sulfate - or - 18% maximum using magnesium sulfate	ASTM C88
Percentage of Fractured Particles	Minimum 90% by weight of particles with at least two fractured faces and 98% with at least one fractured face <sup>1</sup>	ASTM D5821
Flat Particles, Elongated Particles, or Flat and Elongated Particles	10% maximum, by weight, of flat, elongated, or flat and elongated particles <sup>2</sup>	ASTM D4791
Clay lumps and friable particles	Less than or equal to 3 percent	ASTM C142
<b>Fine Aggregate</b>		
Liquid limit	Less than or equal to 25	ASTM D4318
Plasticity Index	Not more than five (5)	ASTM D4318

<sup>1</sup> The area of each face shall be equal to at least 75% of the smallest mid-sectional area of the piece. When two fractured faces are contiguous, the angle between the planes of fractures shall be at least 30 degrees to count as two fractured faces.

<sup>2</sup> A flat particle is one having a ratio of width to thickness greater than five (5); an elongated particle is one having a ratio of length to width greater than five (5).

**209-2.2 Gradation requirements.** The gradation of the aggregate base material shall meet the requirements of the gradation given in the following table when tested per ASTM C117 and ASTM C136. The gradation shall be well graded from coarse to fine and shall not vary from the lower limit on one sieve to the high limit on an adjacent sieve or vice versa.

**Gradation of Aggregate Base**

<b>Sieve Size</b>	<b>Design Range Percentage by Weight passing</b>	<b>Contractor's Final Gradation</b>	<b>Job Control Grading Band Tolerances<sup>1</sup> (Percent)</b>
2 inch (50 mm)	100		0
1-1/2 inch (37.5 mm)	95-100		±5
1 inch (25.0 mm)	70-95		±8
3/4 inch (19.0 mm)	55-85		±8
No. 4 (4.75 mm)	30-60		±8
No. 40 <sup>2</sup> (425 µm)	10-30		±5
No. 200 <sup>2</sup> (75 µm)	0-10		±3

<sup>1</sup> The "Job Control Grading Band Tolerances for Contractor's Final Gradation" in the table shall be applied to "Contractor's Final Gradation" to establish a job control grading band. The full tolerance still applies if application of the tolerances results in a job control grading band outside the design range.

<sup>2</sup> The fraction of material passing the No 200 (75 µm) sieve shall not exceed two-thirds the fraction passing the No 40 (425 µm) sieve.

### **209-2.3 Sampling and Testing.**

**a. Aggregate base materials.** The Contractor shall take samples of the aggregate base in accordance with ASTM D75 to verify initial aggregate base requirements and gradation. Material shall meet the requirements in paragraph 209-2.1. This sampling and testing will be the basis for approval of the aggregate base quality requirements.

**b. Gradation requirements.** The Contractor shall take at least two aggregate base samples per day in the presence of the Resident Project Representative (RPR) to check the final gradation. Sampling shall be per ASTM D75. Material shall meet the requirements in paragraph 209-2.2. The samples shall be taken from the in-place, un-compacted material at sampling points and intervals designated by the RPR.

**209-2.4 Separation Geotextile.** Not used.

## **CONSTRUCTION METHODS**

**209-3.1 Control strip.** The first half-day of construction shall be considered the control strip. The Contractor shall demonstrate, in the presence of the RPR, that the materials, equipment, and construction processes meet the requirements of the specification. The sequence and manner of rolling necessary to

obtain specified density requirements shall be determined. The maximum compacted thickness may be increased to a maximum of 12 inches (300 mm) upon the Contractor's demonstration that approved equipment and operations will uniformly compact the lift to the specified density. The RPR must witness this demonstration and approve the lift thickness prior to full production.

Control strips that do not meet specification requirements shall be reworked, re-compacted or removed and replaced at the Contractor's expense. Full operations shall not continue until the control strip has been accepted by the RPR. The Contractor shall use the same equipment, materials, and construction methods for the remainder of construction, unless adjustments made by the Contractor are approved by the RPR.

**209-3.2 Preparing underlying subgrade and/or subbase.** The underlying subgrade and/or subbase shall be checked and accepted by the RPR before base course placing and spreading operations begin. Re-proof rolling of the subgrade or proof rolling of the subbase in accordance with Item P-152, at the Contractor's expense, may be required by the RPR if the Contractor fails to ensure proper drainage or protect the subgrade and/or subbase. Any ruts or soft, yielding areas due to improper drainage conditions, hauling, or any other cause, shall be corrected before the base course is placed. To ensure proper drainage, the spreading of the base shall begin along the centerline of the pavement on a crowned section or on the high side of the pavement with a one-way slope.

**209-3.3 Production.** The aggregate shall be uniformly blended and, when at a satisfactory moisture content per paragraph 209-3.5, the approved material may be transported directly to the placement.

**209-3.4 Placement.** The aggregate shall be placed and spread on the prepared underlying layer by spreader boxes or other devices as approved by the RPR, to a uniform thickness and width. The equipment shall have positive thickness controls to minimize the need for additional manipulation of the material. Dumping from vehicles that require re-handling shall not be permitted. Hauling over the uncompacted base course shall not be permitted.

The aggregate shall meet gradation and moisture requirements prior to compaction. The base course shall be constructed in lifts as established in the control strip, but not less than 4 inches (100 mm) nor more than 12 inches (300 mm) of compacted thickness.

When more than one lift is required to establish the layer thickness shown on the plans, the construction procedure described here shall apply to each lift. No lift shall be covered by subsequent lifts until tests verify that compaction requirements have been met. The Contractor shall rework, re-compact and retest any material placed which does not meet the specifications at the Contractor's expense.

**209-3.5 Compaction.** Immediately after completion of the spreading operations, compact each layer of the base course, as specified, with approved compaction equipment. The number, type, and weight of rollers shall be sufficient to compact the material to the required density within the same day that the aggregate is placed on the subgrade.

The field density of each compacted lift of material shall be at least 95% of the maximum density of laboratory specimens prepared from samples of the base material delivered to the jobsite. The laboratory specimens shall be compacted and tested in accordance with ASTM D1557. The moisture content of the material during placing operations shall be within  $\pm 2$  percentage points of the optimum moisture content as determined by ASTM D1557. Maximum density refers to maximum dry density at optimum moisture content unless otherwise specified. If the material has greater than 30% retained on the 3/4-inch (19.0 mm) sieve, follow AASHTO T-180 Annex Correction of Maximum Dry Density and Optimum Moisture for Oversized Particles.

**209-3.6 Weather limitations.** Material shall not be placed unless the ambient air temperature is at least 40°F (4°C) and rising. Work on base course shall not be conducted when the subgrade or subbase is wet or frozen or the base material contains frozen material.



**209-3.7 Maintenance.** The base course shall be maintained in a condition that will meet all specification requirements. When material has been exposed to excessive rain, snow, or freeze-thaw conditions, prior to placement of additional material, the Contractor shall verify that materials still meet all specification requirements. Equipment may be routed over completed sections of base course, provided that no damage results and the equipment is routed over the full width of the completed base course. Any damage resulting to the base course from routing equipment over the base course shall be repaired by the Contractor at the Contractor's expense.

**209-3.8 Surface tolerances.** After the course has been compacted, the surface shall be tested for smoothness and accuracy of grade and crown. Any portion lacking the required smoothness or failing in accuracy of grade or crown shall be scarified to a depth of at least 3 inches (75 mm), reshaped and recompact to grade until the required smoothness and accuracy are obtained and approved by the RPR. Any deviation in surface tolerances shall be corrected by the Contractor at the Contractor's expense. The smoothness and accuracy requirements specified here apply only to the top layer when base course is constructed in more than one layer.

**a. Smoothness.** The finished surface shall not vary more than 3/8-inch (9 mm) when tested with a 12-foot (3.7-m) straightedge applied parallel with and at right angles to the centerline. The straightedge shall be moved continuously forward at half the length of the 12-foot (3.7-m) straightedge for the full length of each line on a 50-foot (15-m) grid.

**b. Grade.** The grade and crown shall be measured on a 50-foot (15-m) grid and shall be within +0 and -1/2 inch (12 mm) of the specified grade.

**209-3.9 Acceptance sampling and testing.** Crushed aggregate base course shall be accepted for density and thickness on an area basis. Two tests shall be made for density and thickness for each 1200 square yds. Sampling locations will be determined on a random basis per ASTM D3665.

**a. Density.** The RPR shall perform all density tests.

Each area shall be accepted for density when the field density is at least 95% of the maximum density of laboratory specimens compacted and tested per ASTM D1557. The in-place field density shall be determined per ASTM D1553 or ASTM D6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938. If the specified density is not attained, the area represented by the failed test must be reworked and/or recompact and two additional random tests made. This procedure shall be followed until the specified density is reached. Maximum density refers to maximum dry density at optimum moisture content unless otherwise specified.

**b. Thickness.** Depth tests shall be made by test holes at least 3 inches (75 mm) in diameter that extend through the base. The thickness of the base course shall be within +0 and -1/2 inch (12 mm) of the specified thickness as determined by depth tests taken by the Contractor in the presence of the RPR for each area. Where the thickness is deficient by more than 1/2-inch (12 mm), the Contractor shall correct such areas at no additional cost by scarifying to a depth of at least 3 inches (75 mm), adding new material of proper gradation, and the material shall be blended and recompact to grade. The Contractor shall replace, at his expense, base material where depth tests have been taken.

Contractor may check grade and crown by survey provided a survey is performed on the approved subgrade/subbase prior to placing base material. The survey shall be along centerline, or ridge lines at 50 foot intervals with elevations taken along sections at 50 foot intervals. In addition, elevations shall be taken at all grade breaks and vertical curves. Contractor shall survey the finished surface of the base course at the same locations that the survey was taken on the subgrade/subbase. Contractor shall provide an analysis of the difference in elevations between the two surveys to the RPR for approval.

Alternate methods of checking the fine grade may be used only when authorized by the RPR.

### METHOD OF MEASUREMENT

**209-4.1** The quantity of crushed aggregate base course will be determined by measurement of the number of cubic yards of material actually constructed and accepted by the RPR as complying with the plans and specifications. Base materials shall not be included in any other excavation quantities.

### BASIS OF PAYMENT

**209-5.1** Payment shall be made at the contract unit price per cubic yard for crushed aggregate base course. This price shall be full compensation for furnishing all materials, for preparing and placing these materials, and for all labor, equipment tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-209-5.1	Crushed Aggregate Base Course - per cubic yard
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### REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM C29	Standard Test Method for Bulk Density ("Unit Weight") and Voids in Aggregate
ASTM C88	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C117	Standard Test Method for Materials Finer than 75- $\mu$ m (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM C142	Standard Test Method for Clay Lumps and Friable Particles in Aggregates
ASTM D75	Standard Practice for Sampling Aggregates
ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft <sup>3</sup> (600 kN-m/m <sup>3</sup> ))
ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft <sup>3</sup> (2700 kN-m/m <sup>3</sup> ))
ASTM D2167	Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method

ASTM D2419	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate
ASTM D3665	Standard Practice for Random Sampling of Construction Materials
ASTM D4318	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D4491	Standard Test Methods for Water Permeability of Geotextiles by Permittivity
ASTM D4643	Standard Test Method for Determination of Water Content of Soil and Rock by Microwave Oven Heating
ASTM D4751	Standard Test Methods for Determining Apparent Opening Size of a Geotextile
ASTM D4791	Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
ASTM D5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate
ASTM D6938	Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
ASTM D7928	Standard Test Method for Particle-Size Distribution (Gradation) of Fine-Grained Soils Using the Sedimentation (Hydrometer) Analysis
American Association of State Highway and Transportation Officials (AASHTO)	
M288	Standard Specification for Geosynthetic Specification for Highway Applications

**END OF ITEM P-209**

## ITEM P-401 ASPHALT MIX PAVEMENT

### DESCRIPTION

**401-1.1** This item shall consist of pavement courses composed of mineral aggregate and asphalt binder mixed in a central mixing plant and placed on a prepared base or stabilized course in accordance with these specifications and shall conform to the lines, grades, thicknesses, and typical cross-sections shown on the plans. Each course shall be constructed to the depth, typical section, and elevation required by the plans and shall be rolled, finished, and approved before the placement of the next course.

### MATERIALS

**401-2.1 Aggregate.** Aggregates shall consist of crushed stone, crushed gravel, screenings, natural sand, and mineral filler, as required. The aggregates should have no known history of detrimental pavement staining due to ferrous sulfides, such as pyrite. Coarse aggregate is the material retained on the No. 4 (4.75 mm) sieve. Fine aggregate is the material passing the No. 4 (4.75 mm) sieve.

**a. Coarse aggregate.** Coarse aggregate shall consist of sound, tough, durable particles, free from films of matter that would prevent thorough coating and bonding with the asphalt material and free from organic matter and other deleterious substances. Coarse aggregate material requirements are given in the table below.

**Coarse Aggregate Material Requirements**

Material Test	Requirement	Standard
Resistance to Degradation	Loss: 40% maximum	ASTM C131
Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	Loss after 5 cycles: 12% maximum using Sodium sulfate - or - 18% maximum using magnesium sulfate	ASTM C88
Clay lumps and friable particles	1.0% maximum	ASTM C142
Percentage of Fractured Particles	For pavements designed for aircraft gross weights less than 60,000 pounds (27200 kg): Minimum 50% by weight of particles with at least two fractured faces and 65% with at least one fractured face <sup>1</sup>	ASTM D5821
Flat, Elongated, or Flat and Elongated Particles	8% maximum, by weight, of flat, elongated, or flat and elongated particles at 5:1 <sup>2</sup>	ASTM D4791

<sup>1</sup> The area of each face shall be equal to at least 75% of the smallest mid-sectional area of the piece. When two fractured faces are contiguous, the angle between the planes of fractures shall be at least 30 degrees to count as two fractured faces.

<sup>2</sup> A flat particle is one having a ratio of width to thickness greater than five (5); an elongated particle is one having a ratio of length to width greater than five (5).

**b. Fine aggregate.** Fine aggregate shall consist of clean, sound, tough, durable, angular shaped particles produced by crushing stone, slag, or gravel and shall be free from coatings of clay, silt, or other objectionable matter. Natural (non-manufactured) sand may be used to obtain the gradation of the fine aggregate blend or to improve the workability of the mix. Fine aggregate material requirements are listed in the table below.

#### Fine Aggregate Material Requirements

Material Test	Requirement	Standard
Liquid limit	25 maximum	ASTM D4318
Plasticity Index	4 maximum	ASTM D4318
Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	Loss after 5 cycles: 10% maximum using Sodium sulfate - or - 15% maximum using magnesium sulfate	ASTM C88
Clay lumps and friable particles	1.0% maximum	ASTM C142
Sand equivalent	45 minimum	ASTM D2419
Natural Sand <sup>1</sup>	15% maximum by weight of total aggregate	ASTM D1073

<sup>1</sup> The addition of natural sand to a mix containing all crushed coarse and fine aggregates will normally increase its workability and compactability. The addition of natural sand tends to decrease the stability of the mixture, therefore, it is recommended to not use natural sand. However, if natural sand is used, use the minimum amount necessary to achieve a workable mixture.

**c. Sampling.** ASTM D75 shall be used in sampling coarse and fine aggregate.

**401-2.2 Mineral filler.** Mineral filler (baghouse fines) may be added in addition to material naturally present in the aggregate. Mineral filler shall meet the requirements of ASTM D242.

#### Mineral Filler Requirements

Material Test	Requirement	Standard
Plasticity Index	4 maximum	ASTM D4318

**401-2.3 Asphalt binder.** Asphalt binder shall conform to ASTM D6373 Performance Grade (PG) PG 70-10.

**401-2.4 Anti-stripping agent.** Any anti-stripping agent or additive (anti-strip) shall be heat stable and shall not change the asphalt binder grade beyond specifications. Anti-strip shall be an approved material of the Department of Transportation of the State in which the project is located.

## COMPOSITION

**401-3.1 Composition of mixture(s).** The asphalt mix shall be composed of a mixture of aggregates, filler and anti-strip agent if required, and asphalt binder. The aggregate fractions shall be sized, handled in separate size groups, and combined in such proportions that the resulting mixture meets the grading requirements of the job mix formula (JMF).

**401-3.2 Job mix formula (JMF) laboratory.** The laboratory used to develop the JMF shall possess a current certificate of accreditation, listing D3666 from a national accrediting authority and all test methods required for developing the JMF; and be listed on the accrediting authority's website. A copy of the laboratory's current accreditation and accredited test methods shall be submitted to the Resident Project Representative (RPR) prior to start of construction.

**401-3.3 Job mix formula (JMF).** No asphalt mixture shall be placed until an acceptable mix design has been submitted to the RPR for review and accepted in writing. The RPR's review shall not relieve the Contractor of the responsibility to select and proportion the materials to comply with this section.

When the project requires asphalt mixtures of differing aggregate gradations and/or binders, a separate JMF shall be submitted for each mix. Add anti-stripping agent to meet tensile strength requirements.

The JMF shall be prepared by an accredited laboratory that meets the requirements of paragraph 401-3.2. The asphalt mixture shall be designed using procedures contained in Asphalt Institute MS-2 Mix Design Manual, 7th Edition. Samples shall be prepared and compacted using a Marshall compactor in accordance with ASTM D6926.

Should a change in sources of materials be made, a new JMF must be submitted to the RPR for review and accepted in writing before the new material is used. After the initial production JMF has been approved by the RPR and a new or modified JMF is required for whatever reason, the subsequent cost of the new or modified JMF, including a new control strip when required by the RPR, will be borne by the Contractor.

The RPR may request samples at any time for testing, prior to and during production, to verify the quality of the materials and to ensure conformance with the applicable specifications.

The design criteria in Table 1 are target values necessary to meet the acceptance requirements contained in paragraph 401-6.2. The JMF shall be submitted in writing by the Contractor at least 30 days prior to the start of paving operations. The JMF shall be developed within the same construction season using aggregates proposed for project use.

The JMF shall be dated, and stamped or sealed by the responsible professional Engineer of the laboratory and shall include the following items as a minimum:

- Manufacturer's Certificate of Analysis (COA) for the asphalt binder used in the JMF in accordance with paragraph 401-2.3. Certificate of asphalt performance grade is with modifier already added, if used and must indicate compliance with ASTM D6373. For plant modified asphalt binder, certified test report indicating grade certification of modified asphalt binder.
- Manufacturer's Certificate of Analysis (COA) for the anti-stripping agent if used in the JMF in accordance with paragraph 401-2.4.
- Certified material test reports for the course and fine aggregate and mineral filler in accordance with paragraphs 401-2.1.

- Percent passing each sieve size for individual gradation of each aggregate cold feed and/or hot bin; percent by weight of each cold feed and/or hot bin used; and the total combined gradation in the JMF.
- Specific Gravity and absorption of each coarse and fine aggregate.
- Percent natural sand.
- Percent fractured faces.
- Percent by weight of flat particles, elongated particles, and flat and elongated particles (and criteria).
- Percent of asphalt.
- Number of blows
- Laboratory mixing and compaction temperatures.
- Supplier-recommended field mixing and compaction temperatures.
- Plot of the combined gradation on a 0.45 power gradation curve.
- Graphical plots of air voids, voids in the mineral aggregate (VMA), and unit weight versus asphalt content. To achieve minimum VMA during production, the mix design needs to account for material breakdown during production.
- Tensile Strength Ratio (TSR).
- Type and amount of Anti-strip agent when used.
- Asphalt Pavement Analyzer (APA) results.
- Date the JMF was developed. Mix designs that are not dated or which are from a prior construction season shall not be accepted.

**Table 1. Asphalt Design Criteria**

Test Property	Value	Test Method
Number of blows	75	
Air voids (%)	3.5	ASTM D3203
Percent voids in mineral aggregate (VMA), minimum	See Table 2	ASTM D6995
Tensile Strength Ratio (TSR) <sup>1</sup>	not less than 80 at a saturation of 70-80%	ASTM D4867

<sup>1</sup> Test specimens for TSR shall be compacted at  $7 \pm 1.0$  % air voids.

The mineral aggregate shall be of such size that the percentage composition by weight, as determined by laboratory sieves, will conform to the gradation or gradations specified in Table 2 when tested in accordance with ASTM C136 and ASTM C117.

The gradations in Table 2 represent the limits that shall determine the suitability of aggregate for use from the sources of supply; be well graded from coarse to fine and shall not vary from the low limit on one sieve to the high limit on the adjacent sieve, or vice versa.

**Table 2. Gradation 2 Aggregate - Asphalt Pavements**

<b>Sieve Size</b>	<b>Percentage by Weight Passing Sieve</b>
1 inch (25.0 mm)	--
3/4 inch (19.0 mm)	100
1/2 inch (12.5 mm)	90-100
3/8 inch (9.5 mm)	72-88
No. 4 (4.75 mm)	53-73
No. 8 (2.36 mm)	38-60
No. 16 (1.18 mm)	26-48
No. 30 (600 $\mu$ m)	18-38
No. 50 (300 $\mu$ m)	11-27
No. 100 (150 $\mu$ m)	6-18
No. 200 (75 $\mu$ m)	3-6
<b>Minimum Voids in Mineral Aggregate (VMA)<sup>1</sup></b>	15.0
<b>Asphalt Percent</b>	
Stone or gravel	5.0-7.5
<b>Recommended Minimum Construction Lift Thickness</b>	2 inch

<sup>1</sup>To achieve minimum VMA during production, the mix design needs to account for material breakdown during production.

The aggregate gradations shown are based on aggregates of uniform specific gravity. The percentages passing the various sieves shall be corrected when aggregates of varying specific gravities are used, as indicated in the Asphalt Institute MS-2 Mix Design Manual, 7th Edition.

**401-3.4 Reclaimed asphalt pavement (RAP).** RAP shall not be used.

**401-3.5 Control Strip.** Full production shall not begin until an acceptable control strip has been constructed and accepted in writing by the RPR. The Contractor shall prepare and place a quantity of asphalt according to the JMF. The underlying grade or pavement structure upon which the control strip is to be constructed shall be the same as the remainder of the course represented by the control strip.

The Contractor will not be allowed to place the control strip until the Contractor quality control program (CQCP), showing conformance with the requirements of paragraph 401-5.1, has been accepted, in writing, by the RPR.

The control strip shall be placed in two lanes of the same width and depth to be used in production with a longitudinal cold joint. The cold joint must be cut back in accordance with paragraph 401-4.14 using the same procedure that will be used during production. The cold joint for the control strip will be an exposed construction joint at least four (4) hours old or when the mat has cooled to less than 160°F (71°C). The equipment used in construction of the control strip shall be the same type, configuration and weight to be used on the project.



The control strip will be considered acceptable by the RPR if the gradation, asphalt content, and VMA are within the action limits specified in paragraph 401-5.5a; and Mat density, air voids, and joint density meet the requirements specified in paragraphs 401-6.2.

If the control strip is unacceptable, necessary adjustments to the JMF, plant operation, placing procedures, and/or rolling procedures shall be made and another control strip shall be placed. Unacceptable control strips shall be removed at the Contractor's expense.

Payment will only be made for an acceptable control strip in accordance with paragraph 401-8.1 using a lot pay factor equal to 100.

## CONSTRUCTION METHODS

**401-4.1 Weather limitations.** The asphalt shall not be placed upon a wet surface or when the surface temperature of the underlying course is less than specified in Table 4. The temperature requirements may be waived by the RPR, if requested; however, all other requirements including compaction shall be met.

**Table 4. Surface Temperature Limitations of Underlying Course**

Mat Thickness	Base Temperature (Minimum)	
	°F	°C
3 inches (7.5 cm) or greater	40 <sup>1</sup>	4
Greater than 2 inches (50 mm) but less than 3 inches (7.5 cm)	45	7

**401-4.2 Asphalt plant.** Plants used for the preparation of asphalt shall conform to the requirements of American Association of State Highway and Transportation Officials (AASHTO) M156 including the following items.

**a. Inspection of plant.** The RPR, or RPR's authorized representative, shall have access, at all times, to all areas of the plant for checking adequacy of equipment; inspecting operation of the plant: verifying weights, proportions, and material properties; and checking the temperatures maintained in the preparation of the mixtures.

**b. Storage bins and surge bins.** The asphalt mixture stored in storage and/or surge bins shall meet the same requirements as asphalt mixture loaded directly into trucks. Asphalt mixture shall not be stored in storage and/or surge bins for a period greater than twelve (12) hours. If the RPR determines there is an excessive heat loss, segregation, or oxidation of the asphalt mixture due to temporary storage, temporary storage shall not be allowed.

**401-4.3 Aggregate stockpile management.** Aggregate stockpiles shall be constructed in a manner that prevents segregation and intermixing of deleterious materials. Aggregates from different sources shall be stockpiled, weighed and batched separately at the asphalt batch plant. Aggregates that have become segregated or mixed with earth or foreign material shall not be used.

A continuous supply of materials shall be provided to the work to ensure continuous placement.

**401-4.4 Hauling equipment.** Trucks used for hauling asphalt shall have tight, clean, and smooth metal beds. To prevent the asphalt from sticking to the truck beds, the truck beds shall be lightly coated with a minimum amount of paraffin oil, lime solution, or other material approved by the RPR. Petroleum products shall not be used for coating truck beds. Each truck shall have a suitable cover to protect the

mixture from adverse weather. When necessary, to ensure that the mixture will be delivered to the site at the specified temperature, truck beds shall be insulated or heated and covers shall be securely fastened.

**401-4.4.1 Material transfer vehicle (MTV).** Material transfer vehicles are not required.

**401-4.5 Asphalt pavers.** Asphalt pavers shall be self-propelled with an activated heated screed, capable of spreading and finishing courses of asphalt that will meet the specified thickness, smoothness, and grade. The paver shall have sufficient power to propel itself and the hauling equipment without adversely affecting the finished surface. The asphalt paver shall be equipped with a control system capable of automatically maintaining the specified screed grade and elevation.

If the spreading and finishing equipment in use leaves tracks or indented areas, or produces other blemishes in the pavement that are not satisfactorily corrected by the scheduled operations, the use of such equipment shall be discontinued.

The paver shall be capable of paving to a minimum width specified in paragraph 401-4.12.

**401-4.6 Rollers.** The number, type, and weight of rollers shall be sufficient to compact the asphalt to the required density while it is still in a workable condition without crushing of the aggregate, depressions or other damage to the pavement surface. Rollers shall be in good condition, clean, and capable of operating at slow speeds to avoid displacement of the asphalt. All rollers shall be specifically designed and suitable for compacting asphalt concrete and shall be properly used. Rollers that impair the stability of any layer of a pavement structure or underlying soils shall not be used.

**401-4.7 Density device.** The Contractor shall have on site a density gauge during all paving operations in order to assist in the determination of the optimum rolling pattern, type of roller and frequencies, as well as to monitor the effect of the rolling operations during production paving. The Contractor shall supply a qualified technician during all paving operations to calibrate the gauge and obtain accurate density readings for all new asphalt. These densities shall be supplied to the RPR upon request at any time during construction. No separate payment will be made for supplying the density gauge and technician.

**401-4.8 Preparation of asphalt binder.** The asphalt binder shall be heated in a manner that will avoid local overheating and provide a continuous supply of the asphalt binder to the mixer at a uniform temperature. The temperature of unmodified asphalt binder delivered to the mixer shall be sufficient to provide a suitable viscosity for adequate coating of the aggregate particles, but shall not exceed 325°F (160°C) when added to the aggregate. The temperature of modified asphalt binder shall be no more than 350°F (175°C) when added to the aggregate.

**401-4.9 Preparation of mineral aggregate.** The aggregate for the asphalt shall be heated and dried. The maximum temperature and rate of heating shall be such that no damage occurs to the aggregates. The temperature of the aggregate and mineral filler shall not exceed 350°F (175°C) when the asphalt binder is added. Particular care shall be taken that aggregates high in calcium or magnesium content are not damaged by overheating. The temperature shall not be lower than is required to obtain complete coating and uniform distribution on the aggregate particles and to provide a mixture of satisfactory workability.

**401-4.10 Preparation of Asphalt mixture.** The aggregates and the asphalt binder shall be weighed or metered and mixed in the amount specified by the JMF. The combined materials shall be mixed until the aggregate obtains a uniform coating of asphalt binder and is thoroughly distributed throughout the mixture. Wet mixing time shall be the shortest time that will produce a satisfactory mixture, but not less than 25 seconds for batch plants. The wet mixing time for all plants shall be established by the Contractor, based on the procedure for determining the percentage of coated particles described in ASTM D2489, for each individual plant and for each type of aggregate used. The wet mixing time will be set to achieve 95% of coated particles. For continuous mix plants, the minimum mixing time shall be determined by dividing

the weight of its contents at operating level by the weight of the mixture delivered per second by the mixer. The moisture content of all asphalt upon discharge shall not exceed 0.5%.

**401-4.11 Application of Tack Coat.** Immediately before placing the asphalt mixture, the underlying course shall be cleaned of all dust and debris.

A tack coat shall be applied in accordance with Item P-603 to all vertical and horizontal asphalt and concrete surfaces prior to placement of the first and each subsequent lift of asphalt mixture.

**401-4.12 Laydown plan, transporting, placing, and finishing.** Prior to the placement of the asphalt, the Contractor shall prepare a laydown plan with the sequence of paving lanes and width to minimize the number of cold joints; the location of any temporary ramps; laydown temperature; and estimated time of completion for each portion of the work (milling, paving, rolling, cooling, etc.). The laydown plan and any modifications shall be approved by the RPR.

Deliveries shall be scheduled so that placing and compacting of asphalt is uniform with minimum stopping and starting of the paver. Hauling over freshly placed material shall not be permitted until the material has been compacted, as specified, and allowed to cool to approximately ambient temperature. The Contractor, at their expense, shall be responsible for repair of any damage to the pavement caused by hauling operations.

Contractor shall survey each lift of asphalt surface course and certify to RPR that every lot of each lift meets the grade tolerances of paragraph 401-6.2d before the next lift can be placed.

Edges of existing asphalt pavement abutting the new work shall be saw cut and the cut off material and laitance removed. Apply a tack coat in accordance with P-603 before new asphalt material is placed against it.

The speed of the paver shall be regulated to eliminate pulling and tearing of the asphalt mat. Placement of the asphalt mix shall begin along the centerline of a crowned section or on the high side of areas with a one way slope unless shown otherwise on the laydown plan as accepted by the RPR. The asphalt mix shall be placed in consecutive adjacent lanes having a minimum width of 25 feet except where edge lanes require less width to complete the area.

The longitudinal joint in one course shall offset the longitudinal joint in the course immediately below by at least one foot (30 cm); however, the joint in the surface top course shall be at the centerline of crowned pavements. Transverse joints in one course shall be offset by at least 10 feet (3 m) from transverse joints in the previous course. Transverse joints in adjacent lanes shall be offset a minimum of 10 feet (3 m). On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the asphalt may be spread and luted by hand tools.

The RPR may at any time, reject any batch of asphalt, on the truck or placed in the mat, which is rendered unfit for use due to contamination, segregation, incomplete coating of aggregate, or overheated asphalt mixture. Such rejection may be based on only visual inspection or temperature measurements. In the event of such rejection, the Contractor may take a representative sample of the rejected material in the presence of the RPR, and if it can be demonstrated in the laboratory, in the presence of the RPR, that such material was erroneously rejected, payment will be made for the material at the contract unit price.

Areas of segregation in the surface course, as determined by the RPR, shall be removed and replaced at the Contractor's expense. The area shall be removed by saw cutting and milling a minimum of the construction lift thickness as specified in paragraph 401-3.3, Table 2 for the approved mix design. The area to be removed and replaced shall be a minimum width of the paver and a minimum of 10 feet (3 m) long.

**401-4.13 Compaction of asphalt mixture.** After placing, the asphalt mixture shall be thoroughly and uniformly compacted by self-propelled rollers. The surface shall be compacted as soon as possible when the asphalt has attained sufficient stability so that the rolling does not cause undue displacement, cracking or shoving. The sequence of rolling operations and the type of rollers used shall be at the discretion of the Contractor. The speed of the roller shall, at all times, be sufficiently slow to avoid displacement of the hot mixture and be effective in compaction. Any surface defects and/or displacement occurring as a result of the roller, or from any other cause, shall be corrected at the Contractor's expense.

Sufficient rollers shall be furnished to handle the output of the plant. Rolling shall continue until the surface is of uniform texture, true to grade and cross-section, and the required field density is obtained. To prevent adhesion of the asphalt to the roller, the wheels shall be equipped with a scraper and kept moistened with water as necessary.

In areas not accessible to the roller, the mixture shall be thoroughly compacted with approved power tampers.

Any asphalt that becomes loose and broken, mixed with dirt, contains check-cracking, or in any way defective shall be removed and replaced with fresh hot mixture and immediately compacted to conform to the surrounding area. This work shall be done at the Contractor's expense. Skin patching shall not be allowed.

**401-4.14 Joints.** The formation of all joints shall be made to ensure a continuous bond between the courses and obtain the required density. All joints shall have the same texture as other sections of the course and meet the requirements for smoothness and grade.

The roller shall not pass over the unprotected end of the freshly laid asphalt except when necessary to form a transverse joint. When necessary to form a transverse joint, it shall be made by means of placing a bulkhead or by tapering the course. The tapered edge shall be cut back to its full depth and width on a straight line to expose a vertical face prior to placing the adjacent lane. In both methods, all contact surfaces shall be coated with an asphalt tack coat before placing any fresh asphalt against the joint.

Longitudinal joints which have been left exposed for more than four (4) hours; the surface temperature has cooled to less than 175°F (80°C); or are irregular, damaged, uncompacted or otherwise defective shall be cut back with a pavement saw a maximum of 3 inches (75 mm) to expose a clean, sound, uniform vertical surface for the full depth of the course. All cutback material and any laitance produced from cutting joints shall be removed from the project. Asphalt tack coat in accordance with P-603 shall be applied to the clean, dry joint prior to placing any additional fresh asphalt against the joint. The cost of this work shall be considered incidental to the cost of the asphalt.

Cut back of all cold joints is required as specified above.

The Contractor may provide additional joint density QC by use of joint heaters at the Contractor's expense. Electrically powered infrared heating equipment should consist of one or more low-level radiant energy heaters to uniformly heat and soften the pavement joints. The heaters should be configured to uniformly heat an area up to 18 inches (0.5 m) in width and 3 inches (75 mm) in depth. Infrared equipment shall be thermostatically controlled to provide a uniform, consistent temperature increase throughout the layer being heated up to a maximum temperature range of 200 to 300°F (93 to 150°C).

Propane powered infrared heating equipment shall be attached to the paving machine and the output of infrared energy shall be in the one to six-micron range. Converters shall be arranged end to end directly over the joint to be heated in sufficient numbers to continuously produce, when in operation, a minimum of 240,000 BTU per hour. The joint heater shall be positioned not

more than one inch (25 mm) above the pavement to be heated and in front of the paver screed and shall be fully adjustable. Heaters will be required to be in operation at all times.

**The heaters shall be operated so they do not produce excessive heat when the units pass over new or previously paved material.**

**401-4.15 Saw-cut grooving.** Saw-cut grooving is not required.

**401-4.16 Diamond grinding.** Diamond grinding shall be completed prior to pavement grooving. Diamond grinding shall be accomplished by sawing with saw blades impregnated with industrial diamond abrasive.

Diamond grinding shall be performed with a machine designed specifically for diamond grinding capable of cutting a path at least 3 feet (0.9 m) wide. The saw blades shall be 1/8-inch (3-mm) wide with a sufficient number of blades to create grooves between 0.090 and 0.130 inches (2 and 3.5 mm) wide; and peaks and ridges approximately 1/32 inch (1 mm) higher than the bottom of the grinding cut. The actual number of blades will be determined by the Contractor and depend on the hardness of the aggregate. Equipment or grinding procedures that cause ravels, aggregate fractures, spalls or disturbance to the pavement will not be permitted. Contractor shall demonstrate to the RPR that the grinding equipment will produce satisfactory results prior to making corrections to surfaces. Grinding will be tapered in all directions to provide smooth transitions to areas not requiring grinding. The slurry resulting from the grinding operation shall be continuously removed and the pavement left in a clean condition. The Contractor shall apply a surface treatment per P-608 to all areas that have been subject to grinding.

**401-4.17 Nighttime paving requirements.** The Contractor shall provide adequate lighting during any nighttime construction. A lighting plan shall be submitted by the Contractor and approved by the RPR prior to the start of any nighttime work. All work shall be in accordance with the approved CSPP and lighting plan.

### **CONTRACTOR QUALITY CONTROL (CQC)**

**401-5.1 General.** The Contractor shall develop a Contractor Quality Control Program (CQCP) in accordance with Item C-100. No partial payment will be made for materials without an approved CQCP.

**401-5.2 Contractor quality control (QC) facilities.** The Contractor shall provide or contract for testing facilities in accordance with Item C-100. The RPR shall be permitted unrestricted access to inspect the Contractor's QC facilities and witness QC activities. The RPR will advise the Contractor in writing of any noted deficiencies concerning the QC facility, equipment, supplies, or testing personnel and procedures. When the deficiencies are serious enough to be adversely affecting the test results, the incorporation of the materials into the work shall be suspended immediately and will not be permitted to resume until the deficiencies are satisfactorily corrected.

**401-5.3 Contractor QC testing.** The Contractor shall perform all QC tests necessary to control the production and construction processes applicable to these specifications and as set forth in the approved CQCP. The testing program shall include, but not necessarily be limited to, tests for the control of asphalt content, aggregate gradation, temperatures, aggregate moisture, field compaction, and surface smoothness. A QC Testing Plan shall be developed as part of the CQCP.

**a. Asphalt content.** A minimum of two tests shall be performed per day in accordance with ASTM D6307 or ASTM D2172 for determination of asphalt content. When using ASTM D6307, the correction factor shall be determined as part of the first test performed at the beginning of plant production; and as part of every tenth test performed thereafter. The asphalt content for the day will be determined by averaging the test results.

**b. Gradation.** Aggregate gradations shall be determined a minimum of twice per day from mechanical analysis of extracted aggregate in accordance with ASTM D5444, ASTM C136, and ASTM C117.

**c. Moisture content of aggregate.** The moisture content of aggregate used for production shall be determined a minimum of once per day in accordance with ASTM C566.

**d. Moisture content of asphalt.** The moisture content shall be determined once per day in accordance with AASHTO T329 or ASTM D1461.

**e. Temperatures.** Temperatures shall be checked, at least four times per day, at necessary locations to determine the temperatures of the dryer, the asphalt binder in the storage tank, the asphalt at the plant, and the asphalt at the job site.

**f. In-place density monitoring.** The Contractor shall conduct any necessary testing to ensure that the specified density is being achieved. A nuclear gauge may be used to monitor the pavement density in accordance with ASTM D2950.

**g. Smoothness for Contractor Quality Control.**

The Contractor shall perform smoothness testing in transverse and longitudinal directions daily to verify that the construction processes are producing pavement with variances less than ¼ inch in 12 feet, identifying areas that may pond water which could lead to hydroplaning of aircraft. If the smoothness criteria is not met, appropriate changes and corrections to the construction process shall be made by the Contractor before construction continues

The Contractor may use a 12-foot (3.7 m) “straightedge, a rolling inclinometer meeting the requirements of ASTM E2133 or rolling external reference device that can simulate a 12-foot (3.7m) straightedge approved by the RPR. Straight-edge testing shall start with one-half the length of the straightedge at the edge of pavement section being tested and then moved ahead one-half the length of the straightedge for each successive measurement. Testing shall be continuous across all joints. The surface irregularity shall be determined by placing the freestanding (unleveled) straightedge on the pavement surface and allowing it to rest upon the two highest spots covered by its length, and measuring the maximum gap between the straightedge and the pavement surface in the area between the two high points. If the rolling inclinometer or external reference device is used, the data may be evaluated using the FAA profile program, ProFAA, using the 12-foot straightedge simulation function.

Smoothness readings shall not be made across grade changes or cross slope transitions. The transition between new and existing pavement shall be evaluated separately for conformance with the plans.

**(1) Transverse measurements.** Transverse measurements shall be taken for each day’s production placed. Transverse measurements shall be taken perpendicular to the pavement centerline each 50 feet (15 m) or more often as determined by the RPR. The joint between lanes shall be tested separately to facilitate smoothness between lanes.

**(2) Longitudinal measurements.** Longitudinal measurements shall be taken for each day’s production placed. Longitudinal tests shall be parallel to the centerline of paving; at the center of paving lanes when widths of paving lanes are less than 20 feet (6 m); and at the third points of paving lanes when widths of paving lanes are 20 ft (6 m) or greater. When placement abuts previously placed material the first measurement shall start with one half the length of the straight edge on the previously placed material.

Deviations on the final surface course in either the transverse or longitudinal direction that will trap water greater than 1/4 inch (6 mm) shall be corrected with diamond grinding per paragraph 401-4.16

or by removing and replacing the surface course to full depth. Grinding shall be tapered in all directions to provide smooth transitions to areas not requiring grinding. All areas in which diamond grinding has been performed shall be subject to the final pavement thickness tolerances specified in paragraph 401-6.1d(3). Areas that have been ground shall be sealed with a surface treatment in accordance with Item P-608. To avoid the surface treatment creating any conflict with runway or taxiway markings, it may be necessary to seal a larger area.

Control charts shall be kept to show area of each day's placement and the percentage of corrective grinding required. Corrections to production and placement shall be initiated when corrective grinding is required. If the Contractor's machines and/or methods produce significant areas that need corrective actions in excess of 10 percent of a day's production, production shall be stopped until corrective measures are implemented by the Contractor.

**h. Grade.** Grade shall be evaluated daily to allow adjustments to paving operations when grade measurements do not meet specifications. As a minimum, grade shall be evaluated prior to and after the placement of the first lift and after placement of the surface lift.

Measurements will be taken at appropriate gradelines (as a minimum at center and edges of paving lane) and longitudinal spacing as shown on cross-sections and plans. The final surface of the pavement will not vary from the gradeline elevations and cross-sections shown on the plans by more than 1/2 inch (12 mm) vertically and 0.1 feet (30 mm) laterally. The documentation will be provided by the Contractor to the RPR within 24 hours.

Areas with humps or depressions that exceed grade or smoothness criteria and that retain water on the surface must be ground off provided the course thickness after grinding is not more than 1/2 inch (12 mm) less than the thickness specified on the plans. Grinding shall be in accordance with paragraph 401-4.16.

The Contractor shall repair low areas or areas that cannot be corrected by grinding by removal of deficient areas to the depth of the final course plus 1/2 inch and replacing with new material. Skin patching is not allowed.

**401-5.4 Sampling.** When directed by the RPR, the Contractor shall sample and test any material that appears inconsistent with similar material being sampled, unless such material is voluntarily removed and replaced or deficiencies corrected by the Contractor. All sampling shall be in accordance with standard procedures specified.

**401-5.5 Control charts.** The Contractor shall maintain linear control charts for both individual measurements and range (i.e. difference between highest and lowest measurements) for aggregate gradation, asphalt content, and VMA. The VMA for each day will be calculated and monitored by the QC laboratory.

Control charts shall be posted in a location satisfactory to the RPR and kept current. As a minimum, the control charts shall identify the project number, the contract item number, the test number, each test parameter, the Action and Suspension Limits applicable to each test parameter, and the Contractor's test results. The Contractor shall use the control charts as part of a process control system for identifying potential problems and assignable causes before they occur. If the Contractor's projected data during production indicates a problem and the Contractor is not taking satisfactory corrective action, the RPR may suspend production or acceptance of the material.

**a. Individual measurements.** Control charts for individual measurements shall be established to maintain process control within tolerance for aggregate gradation, asphalt content, and VMA. The control charts shall use the job mix formula target values as indicators of central tendency for the following test parameters with associated Action and Suspension Limits:

**Control Chart Limits for Individual Measurements**

Sieve	Action Limit	Suspension Limit
3/4 inch (19.0 mm)	±6%	±9%
1/2 inch (12.5 mm)	±6%	±9%
3/8 inch (9.5 mm)	±6%	±9%
No. 4 (4.75 mm)	±6%	±9%
No. 16 (1.18 mm)	±5%	±7.5%
No. 50 (300 µm)	±3%	±4.5%
No. 200 (75 µm)	±2%	±3%
<b>Asphalt Content</b>	±0.45%	±0.70%
<b>Minimum VMA</b>	-0.5%	-1.0%

**b. Range.** Control charts shall be established to control gradation process variability. The range shall be plotted as the difference between the two test results for each control parameter. The Suspension Limits specified below are based on a sample size of  $n = 2$ . Should the Contractor elect to perform more than two tests per lot, the Suspension Limits shall be adjusted by multiplying the Suspension Limit by 1.18 for  $n = 3$  and by 1.27 for  $n = 4$ .

**Control Chart Limits Based on Range**

Sieve	Suspension Limit
1/2 inch (12.5 mm)	11%
3/8 inch (9.5 mm)	11%
No. 4 (4.75 mm)	11%
No. 16 (1.18 mm)	9%
No. 50 (300 µm)	6%
No. 200 (75 µm)	3.5%
<b>Asphalt Content</b>	0.8%

**c. Corrective Action.** The CQCP shall indicate that appropriate action shall be taken when the process is believed to be out of tolerance. The Plan shall contain rules to gauge when a process is out of control and detail what action will be taken to bring the process into control. As a minimum, a process shall be deemed out of control and production stopped and corrective action taken, if:

- (1) One point falls outside the Suspension Limit line for individual measurements or range; or
- (2) Two points in a row fall outside the Action Limit line for individual measurements.

**401-5.6 QC reports.** The Contractor shall maintain records and shall submit reports of QC activities daily, in accordance with Item C-100.



## MATERIAL ACCEPTANCE

**401-6.1 Acceptance sampling and testing.** Unless otherwise specified, all acceptance sampling and testing necessary to determine conformance with the requirements specified in this section will be performed by the RPR at no cost to the Contractor except that coring as required in this section shall be completed and paid for by the Contractor.

**a. Quality assurance (QA) testing laboratory.** The QA testing laboratory performing these acceptance tests will be accredited in accordance with ASTM D3666. The QA laboratory accreditation will be current and listed on the accrediting authority's website. All test methods required for acceptance sampling and testing will be listed on the lab accreditation.

**b. Lot size.** A standard lot will be equal to one day's production divided into approximately equal sublots of between 400 to 600 tons. When only one or two sublots are produced in a day's production, the sublots will be combined with the production lot from the previous or next day.

Where more than one plant is simultaneously producing asphalt for the job, the lot sizes will apply separately for each plant.

**c. Asphalt air voids.** Plant-produced asphalt will be tested for air voids on a subplot basis.

**(1) Sampling.** Material from each subplot shall be sampled in accordance with ASTM D3665. Samples shall be taken from material deposited into trucks at the plant or at the job site in accordance with ASTM D979. The sample of asphalt may be put in a covered metal tin and placed in an oven for not less than 30 minutes nor more than 60 minutes to maintain the material at or above the compaction temperature as specified in the JMF. When absorptive aggregates are used, the sample of asphalt may be put in a covered metal tin and placed in an oven for not less than 60 minutes nor more than 90 minutes.

**(2) Testing.** Air voids will be determined for each subplot in accordance with ASTM D3203 for a set of three compacted specimens prepared in accordance with ASTM D6926.

**d. In-place asphalt mat and joint density.** Each subplot will be tested for in-place mat and joint density as a percentage of the theoretical maximum density (TMD).

**(1) Sampling.** The Contractor will cut minimum 5 inch (125 mm) diameter samples in accordance with ASTM D5361. The Contractor shall furnish all tools, labor, and materials for cleaning, and filling the cored pavement. Laitance produced by the coring operation shall be removed immediately after coring, and core holes shall be filled within one day after sampling in a manner acceptable to the RPR.

**(2) Bond.** Each lift of asphalt shall be bonded to the underlying layer. If cores reveal that the surface is not bonded, additional cores shall be taken as directed by the RPR to determine the extent of unbonded areas. Unbonded areas shall be removed by milling and replaced at no additional cost as directed by the RPR.

**(3) Thickness.** Thickness of each lift of surface course will be evaluated by the RPR for compliance to the requirements shown on the plans after any necessary corrections for grade. Measurements of thickness will be made using the cores extracted for each subplot for density measurement. The maximum allowable deficiency at any point will not be more than 1/4 inch (6 mm) less than the thickness indicated for the lift. Average thickness of lift, or combined lifts, will not be less than the indicated thickness. Where the thickness tolerances are not met, the lot or subplot shall be corrected by the Contractor at his expense by removing the deficient area and replacing with new pavement. The Contractor, at his expense, may take additional cores as approved by the RPR to circumscribe the deficient area.

**(4) Mat density.** One core shall be taken from each subplot. Core locations will be determined by the RPR in accordance with ASTM D3665. Cores for mat density shall not be taken closer than one foot (30 cm) from a transverse or longitudinal joint. The bulk specific gravity of each cored sample will be determined in accordance with ASTM D2726. The percent compaction (density) of each sample will be determined by dividing the bulk specific gravity of each subplot sample by the TMD for that subplot.

**(5) Joint density.** One core centered over the longitudinal joint shall be taken for each subplot that has a longitudinal joint. Core locations will be determined by the RPR in accordance with ASTM D3665. The bulk specific gravity of each core sample will be determined in accordance with ASTM D2726. The percent compaction (density) of each sample will be determined by dividing the bulk specific gravity of each joint density sample by the average TMD for the lot. The TMD used to determine the joint density at joints formed between lots will be the lower of the average TMD values from the adjacent lots.

#### **401-6.2 Acceptance criteria.**

**a. General.** Acceptance will be based on the implementation of the Contractor Quality Control Program (CQCP) and the following characteristics of the asphalt and completed pavements: air voids, mat density, joint density, grade.

**b. Air Voids and Mat density.** Acceptance of each lot of plant produced material for mat density and air voids will be based on the percentage of material within specification limits (PWL). If the PWL of the lot equals or exceeds 90%, the lot will be acceptable. Acceptance and payment will be determined in accordance with paragraph 401-8.1.

**c. Joint density.** Acceptance of each lot of plant produced asphalt for joint density will be based on the PWL. If the PWL of the lot is equal to or exceeds 90%, the lot will be considered acceptable. If the PWL is less than 90%, the Contractor shall evaluate the reason and act accordingly. If the PWL is less than 80%, the Contractor shall cease operations and until the reason for poor compaction has been determined. If the PWL is less than 71%, the pay factor for the lot used to complete the joint will be reduced by five (5) percentage points. This lot pay factor reduction will be incorporated and evaluated in accordance with paragraph 401-8.1.

**d. Grade.** The final finished surface of the pavement shall be surveyed to verify that the grade elevations and cross-sections shown on the plans do not deviate more than 1/2 inch (12 mm) vertically or 0.1 feet (30 mm) laterally.

Cross-sections of the pavement shall be taken at a minimum 50-foot (15-m) longitudinal spacing and at all longitudinal grade breaks, and at start and end of each lane placed. Minimum cross-section grade points shall include grade at centerline,  $\pm 10$  feet of centerline, and edge of runway or taxiway pavement.

The survey and documentation shall be stamped and signed by a licensed surveyor. Payment for sublots that do not meet grade for over 25% of the subplot shall not be more than 95%.

**e. Profilograph roughness for QA Acceptance.** Not used.

**401-6.3 Percentage of material within specification limits (PWL).** The PWL will be determined in accordance with procedures specified in Item C-110. The specification tolerance limits (L) for lower and (U) for upper are contained in Table 5.

**Table 5. Acceptance Limits for Air Voids and Density**

Test Property	Pavements Specification Tolerance Limits	
	L	U
<b>Air Voids Total Mix (%)</b>	2.0	5.0
<b>Surface Course Mat Density (%)</b>	92.8	-
<b>Base Course Mat Density (%)</b>	92.0	-
<b>Joint density (%)</b>	90.5	--

**a. Outliers.** All individual tests for mat density and air voids will be checked for outliers (test criterion) in accordance with ASTM E178, at a significance level of 5%. Outliers will be discarded, and the PWL will be determined using the remaining test values. The criteria in Table 5 is based on production processes which have a variability with the following standard deviations: Surface Course Mat Density (%), 1.30; Base Course Mat Density (%), 1.55; Joint Density (%), 1.55.

The Contractor should note that (1) 90 PWL is achieved when consistently producing a surface course with an average mat density of at least 94.5% with 1.30% or less variability, (2) 90 PWL is achieved when consistently producing a base course with an average mat density of at least 94.0% with 1.55% or less variability, and (3) 90 PWL is achieved when consistently producing joints with an average joint density of at least 92.5% with 1.55% or less variability.

#### **401-6.4 Resampling pavement for mat density.**

**a. General.** Resampling of a lot of pavement will only be allowed for mat density, and then, only if the Contractor requests same, in writing, within 48 hours after receiving the written test results from the RPR. A retest will consist of all the sampling and testing procedures contained in paragraphs 401-6.1d and 401-6.2b. Only one resampling per lot will be permitted.

(1) A redefined PWL will be calculated for the resampled lot. The number of tests used to calculate the redefined PWL will include the initial tests made for that lot plus the retests.

(2) The cost for resampling and retesting shall be borne by the Contractor.

**b. Payment for resampled lots.** The redefined PWL for a resampled lot will be used to calculate the payment for that lot in accordance with Table 6.

**c. Outliers.** Check for outliers in accordance with ASTM E178, at a significance level of 5%.

#### **401-6.5 Leveling course.** Not Used.

### **METHOD OF MEASUREMENT**

**401-7.1 Measurement.** Asphalt shall be measured by the number of tons of asphalt used in the accepted work. Batch weights or truck scale weights will be used to determine the basis for the tonnage.

### BASIS OF PAYMENT

**401-8.1 Payment.** Payment for a lot of asphalt meeting all acceptance criteria as specified in paragraph 401-6.2 shall be made based on results of tests for mat density and air voids. Payment for acceptable lots shall be adjusted according to paragraph 401-8.1c for mat density and air voids; and paragraph 401-6.2c for joint density, subject to the limitation that:

**a.** The total project payment for plant mix asphalt pavement shall not exceed 100 percent of the product of the contract unit price and the total number of tons of asphalt used in the accepted work.

**b.** The price shall be compensation for furnishing all materials, for all preparation, mixing, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

**c. Basis of adjusted payment.** The pay factor for each individual lot shall be calculated in accordance with Table 6. A pay factor shall be calculated for both mat density and air voids. The lot pay factor shall be the higher of the two values when calculations for both mat density and air voids are 100% or higher. The lot pay factor shall be the product of the two values when only one of the calculations for either mat density or air voids is 100% or higher. The lot pay factor shall be the lower of the two values when calculations for both mat density and air voids are less than 100%. If PWL for joint density is less than 71% then the lot pay factor shall be reduced by 5% but be no higher than 95%.

For each lot accepted, the adjusted contract unit price shall be the product of the lot pay factor for the lot and the contract unit price. Payment shall be subject to the total project payment limitation specified in paragraph 401-8.1a. Payment in excess of 100% for accepted lots of asphalt shall be used to offset payment for accepted lots of asphalt pavement that achieve a lot pay factor less than 100%.

Payment for sublots which do not meet grade in accordance with paragraph 401-6.2d after correction for over 25% of the subplot shall be reduced by 5%.

**Table 6. Price adjustment schedule<sup>1</sup>**

Percentage of material within specification limits (PWL)	Lot pay factor (percent of contract unit price)
96 – 100	106
90 – 95	PWL + 10
75 – 89	0.5 PWL + 55
55 – 74	1.4 PWL – 12
Below 55	Reject <sup>2</sup>

<sup>1</sup> Although it is theoretically possible to achieve a pay factor of 106% for each lot, actual payment above 100% shall be subject to the total project payment limitation specified in paragraph 401-8.1a.

<sup>2</sup> The lot shall be removed and replaced. However, the RPR may decide to allow the rejected lot to remain. In that case, if the RPR and Contractor agree in writing that the lot shall not be removed, it shall be paid for at 50% of the contract unit price and the total project payment shall be reduced by the amount withheld for the rejected lot.

**d. Profilograph Roughness.** Not used.

Payment will be made under:

Item P-401-8.1            Asphalt Surface Course, Gradation 2 - per ton

### REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

#### ASTM International (ASTM)

ASTM C29	Standard Test Method for Bulk Density ("Unit Weight") and Voids in Aggregate
ASTM C88	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C117	Standard Test Method for Materials Finer than 75- $\mu$ m (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C127	Standard Test Method for Density, Relative Density (Specific Gravity) and Absorption of Coarse Aggregate
ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM C142	Standard Test Method for Clay Lumps and Friable Particles in Aggregates
ASTM C566	Standard Test Method for Total Evaporable Moisture Content of Aggregate by Drying
ASTM D75	Standard Practice for Sampling Aggregates
ASTM D242	Standard Specification for Mineral Filler for Bituminous Paving Mixtures
ASTM D946	Standard Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction
ASTM D979	Standard Practice for Sampling Asphalt Paving Mixtures
ASTM D1073	Standard Specification for Fine Aggregate for Asphalt Paving Mixtures
ASTM D1188	Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Coated Samples
ASTM D2172	Standard Test Method for Quantitative Extraction of Bitumen from Asphalt Paving Mixtures
ASTM D1461	Standard Test Method for Moisture or Volatile Distillates in Asphalt Paving Mixtures
ASTM D2041	Standard Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures

ASTM D2419	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate
ASTM D2489	Standard Practice for Estimating Degree of Particle Coating of Bituminous-Aggregate Mixtures
ASTM D2726	Standard Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures
ASTM D2950	Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods
ASTM D3203	Standard Test Method for Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures
ASTM D3381	Standard Specification for Viscosity-Graded Asphalt Cement for Use in Pavement Construction
ASTM D3665	Standard Practice for Random Sampling of Construction Materials
ASTM D3666	Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials
ASTM D4318	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D4552	Standard Practice for Classifying Hot-Mix Recycling Agents
ASTM D4791	Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
ASTM D4867	Standard Test Method for Effect of Moisture on Asphalt Concrete Paving Mixtures
ASTM D5361	Standard Practice for Sampling Compacted Asphalt Mixtures for Laboratory Testing
ASTM D5444	Standard Test Method for Mechanical Size Analysis of Extracted Aggregate
ASTM D5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate
ASTM D6084	Standard Test Method for Elastic Recovery of Bituminous Materials by Ductilometer
ASTM D6307	Standard Test Method for Asphalt Content of Hot Mix Asphalt by Ignition Method
ASTM D6373	Standard Specification for Performance Graded Asphalt Binder
ASTM D6752	Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Automatic Vacuum Sealing Method
ASTM D6926	Standard Practice for Preparation of Bituminous Specimens Using Marshall Apparatus

ASTM D6927	Standard Test Method for Marshall Stability and Flow of Bituminous Mixtures
ASTM D6995	Standard Test Method for Determining Field VMA based on the Maximum Specific Gravity of the Mix (Gmm)
ASTM E11	Standard Specification for Woven Wire Test Sieve Cloth and Test Sieves
ASTM E178	Standard Practice for Dealing with Outlying Observations
ASTM E1274	Standard Test Method for Measuring Pavement Roughness Using a Profilograph
ASTM E950	Standard Test Method for Measuring the Longitudinal Profile of Traveled Surfaces with an Accelerometer Established Inertial Profiling Reference
ASTM E2133	Standard Test Method for Using a Rolling Inclinator to Measure Longitudinal and Transverse Profiles of a Traveled Surface
American Association of State Highway and Transportation Officials (AASHTO)	
AASHTO M156	Standard Specification for Requirements for Mixing Plants for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures.
AASHTO T329	Standard Method of Test for Moisture Content of Hot Mix Asphalt (HMA) by Oven Method
AASHTO T324	Standard Method of Test for Hamburg Wheel-Track Testing of Compacted Asphalt Mixtures
AASHTO T 340	Standard Method of Test for Determining the Rutting Susceptibility of Hot Mix Asphalt (APA) Using the Asphalt Pavement Analyzer (APA)
Asphalt Institute (AI)	
Asphalt Institute Handbook MS-26, Asphalt Binder	
Asphalt Institute MS-2 Mix Design Manual, 7th Edition	
AI State Binder Specification Database	
Federal Highway Administration (FHWA)	
Long Term Pavement Performance Binder Program	
Advisory Circulars (AC)	
AC 150/5320-6	Airport Pavement Design and Evaluation
FAA Orders	
5300.1	Modifications to Agency Airport Design, Construction, and Equipment Standards
Software	
FAARFIELD	

**END OF ITEM P-401**

## Item P-603 Emulsified Asphalt Tack Coat

### DESCRIPTION

**603-1.1** This item shall consist of preparing and treating an asphalt or concrete surface with asphalt material in accordance with these specifications and in reasonably close conformity to the lines shown on the plans.

### MATERIALS

**603-2.1 Asphalt materials.** The asphalt material shall be an emulsified asphalt as specified in ASTM D3628, as an asphalt application for tack coat appropriate to local conditions. The emulsified asphalt shall not be diluted. The Contractor shall provide a copy of the manufacturer's Certificate of Analysis (COA) for the asphalt material to the Resident Project Representative (RPR) before the asphalt material is applied for review and acceptance. The furnishing of COA for the asphalt material shall not be interpreted as a basis for final acceptance. The manufacturer's COA may be subject to verification by testing the material delivered for use on the project.

### CONSTRUCTION METHODS

**603-3.1 Weather limitations.** The tack coat shall be applied only when the existing surface is dry and the atmospheric temperature is 50°F (10°C) or above; the temperature has not been below 35°F (2°C) for the 12 hours prior to application; and when the weather is not foggy or rainy. The temperature requirements may be waived when directed by the RPR.

**603-3.2 Equipment.** The Contractor shall provide equipment for heating and applying the emulsified asphalt material. The emulsion shall be applied with a manufacturer-approved computer rate-controlled asphalt distributor. The equipment shall be in good working order and contain no contaminants or diluents in the tank. Spray bar tips must be clean, free of burrs, and of a size to maintain an even distribution of the emulsion. Any type of tip or pressure source is suitable that will maintain predetermined flow rates and constant pressure during the application process with application speeds under eight (8) miles per hour (13 km per hour) or seven (700) feet per minute (213 m per minute).

The equipment will be tested under pressure for leaks and to ensure proper set-up before use to verify truck set-up (via a test-shot area), including but not limited to, nozzle tip size appropriate for application, spray-bar height and pressure and pump speed, evidence of triple-overlap spray pattern, lack of leaks, and any other factors relevant to ensure the truck is in good working order before use.

The distributor truck shall be equipped with a minimum 12-foot (3.7-m) spreader spray bar with individual nozzle control with computer-controlled application rates. The distributor truck shall have an easily accessible thermometer that constantly monitors the temperature of the emulsion, and have an operable mechanical tank gauge that can be used to cross-check the computer accuracy. If the distributor is not equipped with an operable quick shutoff valve, the prime operations shall be started and stopped on building paper.

The distributor truck shall be equipped to effectively heat and mix the material to the required temperature prior to application as required. Heating and mixing shall be done in accordance with the manufacturer's recommendations. Do not overheat or over mix the material.



The distributor shall be equipped with a hand sprayer.

Asphalt distributors must be calibrated annually in accordance with ASTM D2995. The Contractor must furnish a current calibration certification for the asphalt distributor truck from any State or other agency as approved by the RPR.

A power broom and/or power blower suitable for cleaning the surfaces to which the asphalt tack coat is to be applied shall be provided.

**603-3.3 Application of emulsified asphalt material.** The emulsified asphalt shall not be diluted. Immediately before applying the emulsified asphalt tack coat, the full width of surface to be treated shall be swept with a power broom and/or power blower to remove all loose dirt and other objectionable material.

The emulsified asphalt material shall be uniformly applied with an asphalt distributor at the rates appropriate for the conditions and surface specified in the table below. The type of asphalt material and application rate shall be approved by the RPR prior to application.

#### Emulsified Asphalt

Surface Type	Residual Rate, gal/SY (L/square meter)	Emulsion Application Bar Rate, gal/SY (L/square meter)
New asphalt	0.02-0.05 (0.09-0.23)	0.03-0.07 (0.13-0.32)
Existing asphalt	0.04-0.07 (0.18-0.32)	0.06-0.11 (0.27-0.50)
Milled Surface	0.04-0.08 (0.18-0.36)	.06-0.12 (0.27-0.54)
Concrete	0.03-0.05 (0.13-0.23)	0.05-0.08 (0.23-0.36)

After application of the tack coat, the surface shall be allowed to cure without being disturbed for the period of time necessary to permit drying and setting of the tack coat. This period shall be determined by the RPR. The Contractor shall protect the tack coat and maintain the surface until the next course has been placed. When the tack coat has been disturbed by the Contractor, tack coat shall be reapplied at the Contractor's expense.

**603-3.4 Freight and waybills** The Contractor shall submit waybills and delivery tickets, during progress of the work. Before the final statement is allowed, file with the RPR certified waybills and certified delivery tickets for all emulsified asphalt materials used in the construction of the pavement covered by the contract. Do not remove emulsified asphalt material from storage until the initial outage and temperature measurements have been taken. The delivery or storage units will not be released until the final outage has been taken.

#### METHOD OF MEASUREMENT

**603-4.1** The emulsified asphalt material for tack coat shall be measured by the gallon. Volume shall be corrected to the volume at 60°F (16°C) in accordance with ASTM D1250. The emulsified asphalt material paid for will be the measured quantities used in the accepted work, provided that the measured quantities are not 10% over the specified application rate. Any amount of emulsified asphalt material more than 10% over the specified application rate for each application will be deducted from the measured quantities, except for irregular areas where hand spraying of the emulsified asphalt material is necessary. Water added to emulsified asphalt will not be measured for payment.

### **BASIS OF PAYMENT**

**603.5-1** Payment shall be made at the contract unit price per gallon of emulsified asphalt material. This price shall be full compensation for furnishing all materials, for all preparation, delivery, and application of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-603-5.1	Emulsified Asphalt Tack Coat - per gallon
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### **REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM D1250	Standard Guide for Use of the Petroleum Measurement Tables
ASTM D2995	Standard Practice for Estimating Application Rate and Residual Application Rate of Bituminous Distributors
ASTM D3628	Standard Practice for Selection and Use of Emulsified Asphalts

**END OF ITEM P-603**

## Item P-605 Joint Sealants for Pavements

### DESCRIPTION

**605-1.1** This item shall consist of providing and installing a resilient and adhesive joint sealing material capable of effectively sealing joints in pavement; joints between different types of pavements; and cracks in existing pavement.

### MATERIALS

**605-2.1 Joint sealants.** Joint sealant materials shall meet the requirements of the following types as indicated on the Contract Drawings:

ASTM D6690	Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements
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Each lot or batch of sealant shall be delivered to the jobsite in the manufacturer's original sealed container. Each container shall be marked with the manufacturer's name, batch or lot number, the safe heating temperature, and shall be accompanied by the manufacturer's certification stating that the sealant meets the requirements of this specification.

**605-2.2 Backer rod.** The material furnished shall be a compressible, non-shrinking, non-staining, non-absorbing material that is non-reactive with the joint sealant in accordance with ASTM D5249. The backer-rod material shall be  $25\% \pm 5\%$  larger in diameter than the nominal width of the joint. Type 1 backer rods shall be used for hot-applied sealants. Type 1 or Type 3 backer rods shall be used for cold-applied sealants.

**605-2.3 Bond breaking tapes.** Provide a bond breaking tape or separating material that is a flexible, non-shrinkable, non-absorbing, non-staining, and non-reacting adhesive-backed tape. The material shall have a melting point at least 5°F (3°C) greater than the pouring temperature of the sealant being used when tested in accordance with ASTM D789. The bond breaker tape shall be approximately 1/8 inch (3 mm) wider than the nominal width of the joint and shall not bond to the joint sealant.

### CONSTRUCTION METHODS

**605-3.1 Time of application.** Joints shall be sealed as soon after completion of the curing period as feasible and before the pavement is opened to traffic, including construction equipment. The pavement temperature shall be 50°F (10°C) and rising at the time of application of the poured joint sealing material. Do not apply sealant if moisture is observed in the joint.

**605-3.2 Equipment.** Machines, tools, and equipment used in the performance of the work required by this section shall be approved before the work is started and maintained in satisfactory condition at all times. Submit a list of proposed equipment to be used in performance of construction work including descriptive data, 30 days prior to use on the project.

**a. Tractor-mounted routing tool.** Provide a routing tool, used for removing old sealant from the joints, of such shape and dimensions and so mounted on the tractor that it will not damage the sides of the joints. The tool shall be designed so that it can be adjusted to remove the old material to varying depths as

required. The use of V-shaped tools or rotary impact routing devices will not be permitted. Hand-operated spindle routing devices may be used to clean and enlarge random cracks.

**b. Concrete saw.** Provide a self-propelled power saw, with water-cooled diamond or abrasive saw blades, for cutting joints to the depths and widths specified.

**c. Sandblasting equipment.** Sandblasting is not allowed.

**d. Waterblasting equipment.** The Contractor must demonstrate waterblasting equipment including the pumps, hose, guide and nozzle size, under job conditions, before approval in accordance with paragraph 605-3.3. The Contractor shall demonstrate, in the presence of the RPR, that the method cleans the joint and does not damage the joint.

**e. Hand tools.** Hand tools may be used, when approved, for removing defective sealant from a crack and repairing or cleaning the crack faces. Hand tools should be carefully evaluated for potential spalling effects prior to approval for use.

**f. Hot-poured sealing equipment.** The unit applicators used for heating and installing ASTM D6690 joint sealant materials shall be mobile and shall be equipped with a double-boiler, agitator-type kettle with an oil medium in the outer space for heat transfer; a direct-connected pressure-type extruding device with a nozzle shaped for inserting in the joint to be filled; positive temperature devices for controlling the temperature of the transfer oil and sealant; and a recording type thermometer for indicating the temperature of the sealant. The applicator unit shall be designed so that the sealant will circulate through the delivery hose and return to the inner kettle when not in use.

**g. Cold-applied, single-component sealing equipment.** The equipment for installing ASTM D5893 single component joint sealants shall consist of an extrusion pump, air compressor, following plate, hoses, and nozzle for transferring the sealant from the storage container into the joint opening. The dimension of the nozzle shall be such that the tip of the nozzle will extend into the joint to allow sealing from the bottom of the joint to the top. Maintain the initially approved equipment in good working condition, serviced in accordance with the supplier's instructions, and unaltered in any way without obtaining prior approval. Small hand-held air-powered equipment (i.e., caulking guns) may be used for small applications.

**605-3.3 Preparation of joints.** Pavement joints for application of material in this specification must be dry, clean of all scale, dirt, dust, curing compound, and other foreign matter. The Contractor shall demonstrate, in the presence of the RPR, that the method cleans the joint and does not damage the joint.

**a. Sawing.** All joints shall be sawed in accordance with specifications and plan details. Immediately after sawing the joint, the resulting slurry shall be completely removed from joint and adjacent area by flushing with a jet of water, and by use of other tools as necessary.

**b. Sealing.** Immediately before sealing, the joints shall be thoroughly cleaned of all remaining laitance, curing compound, filler, protrusions of hardened concrete, old sealant and other foreign material from the sides and upper edges of the joint space to be sealed. Cleaning shall be accomplished by tractor-mounted routing equipment, concrete saw or waterblaster as specified in paragraph 605-3.2. The newly exposed concrete joint faces and the pavement surface extending a minimum of 1/2 inch (12 mm) from the joint edge shall be sandblasted clean. Sandblasting shall be accomplished in a minimum of two passes. One pass per joint face with the nozzle held at an angle directly toward the joint face and not more than 3 inches (75 mm) from it. After final cleaning and immediately prior to sealing, blow out the joints with compressed air and leave them completely free of debris and water. The joint faces shall be surface dry when the seal is applied.

**c. Backer Rod.** When the joint opening is of a greater depth than indicated for the sealant depth, plug or seal off the lower portion of the joint opening using a backer rod in accordance with paragraph 605-2.2

to prevent the entrance of the sealant below the specified depth. Take care to ensure that the backer rod is placed at the specified depth and is not stretched or twisted during installation.

**d. Bond-breaking tape.** Where inserts or filler materials contain bitumen, or the depth of the joint opening does not allow for the use of a backup material, insert a bond-separating tape breaker in accordance with paragraph 605-2.3 to prevent incompatibility with the filler materials and three-sided adhesion of the sealant. Securely bond the tape to the bottom of the joint opening so it will not float up into the new sealant.

**605-3.4 Installation of sealants.** Joints shall be inspected for proper width, depth, alignment, and preparation, and shall be approved by the RPR before sealing is allowed. Sealants shall be installed in accordance with the following requirements:

Immediately preceding, but not more than 50 feet (15 m) ahead of the joint sealing operations, perform a final cleaning with compressed air. Fill the joints from the bottom up to 1/4 inch (6 mm)  $\pm$  1/16 inch (2 mm) below the top of pavement surface; or bottom of groove for grooved pavement. Remove and discard excess or spilled sealant from the pavement by approved methods. Install the sealant in such a manner as to prevent the formation of voids and entrapped air. In no case shall gravity methods or pouring pots be used to install the sealant material. Traffic shall not be permitted over newly sealed pavement until authorized by the RPR. When a primer is recommended by the manufacturer, apply it evenly to the joint faces in accordance with the manufacturer's instructions. Check the joints frequently to ensure that the newly installed sealant is cured to a tack-free condition within the time specified.

Backer rod and bond-breaking tape shall be compatible with the sealant.

**605-3.5 Inspection.** The Contractor shall inspect the joint sealant for proper rate of cure and set, bonding to the joint walls, cohesive separation within the sealant, reversion to liquid, entrapped air and voids. Sealants exhibiting any of these deficiencies at any time prior to the final acceptance of the project shall be removed from the joint, wasted, and replaced as specified at no additional cost to the airport.

**605-3.6 Clean-up.** Upon completion of the project, remove all unused materials from the site and leave the pavement in a clean condition.

## METHOD OF MEASUREMENT

**605-4.1** Joint sealing material shall be measured by the linear foot of sealant in place, completed, and accepted.

## BASIS OF PAYMENT

**605-5.1** Payment for joint sealing material shall be made at the contract unit price per linear foot. The price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-605-5.1	Joint Sealant - per linear foot
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## REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

### ASTM International (ASTM)

ASTM D789	Standard Test Method for Determination of Relative Viscosity of Polyamide (PA)
ASTM D5249	Standard Specification for Backer Material for Use with Cold- and Hot-Applied Joint Sealants in Portland-Cement Concrete and Asphalt Joints
ASTM D6690	Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt

### Advisory Circulars (AC)

AC 150/5340-30	Design and Installation Details for Airport Visual Aids
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## END ITEM P-605

## Item P-608 Emulsified Asphalt Seal Coat

### DESCRIPTION

**608-1.1** This item shall consist of the application of a emulsified asphalt surface treatment composed of an emulsion of natural and refined asphalt materials, water and a polymer additive, for taxiways and runways with the application of a suitable aggregate to maintain adequate surface friction; and airfield secondary and tertiary pavements including low-speed taxiways, shoulders, overruns, roads, parking areas, and other general applications with or without aggregate applied as designated on the plans. The terms seal coat, asphalt sealer, and asphalt material are interchangeable throughout this specification. The term emulsified asphalt means an emulsion of natural and refined asphalt materials.

### MATERIALS

**608-2.1 Aggregate.** The aggregate material shall be a dry, clean, dust and dirt free, sound, durable, angular shaped manufactured specialty sand, such as that used as an abrasive, with a Mohs hardness of 6 to 8. The Contractor shall submit the specialty sand manufacturer's technical data and a manufacturer's Certificate of Analysis (COA) indicating that the specialty sand meets the requirements of the specification to the RPR prior to start of construction. The sand must be approved for use by the RPR and shall meet the following gradation limits when tested in accordance with ASTM C136 and ASTM C117:

**Aggregate Material Gradation Requirements<sup>1</sup>**

Sieve Designation (square openings)	Individual Percentage Retained by Weight
No. 10 (2.00 mm)	0
No. 14 (1.41 mm)	0-4
No. 16 (1.18 mm)	0-8
No. 20 (850 µm)	0-35
No. 30 (600 µm)	20-50
No. 40 (425 µm)	10-45
No. 50 (300 µm)	0-20
No. 70 (212 µm)	0-5
No. 100 (150 µm)	0-2
No. 200 (75 µm)	0-2

<sup>1</sup> Locally available sand or abrasive material that is slightly outside of the gradation requirements may be approved by the RPR with concurrence by the seal coat manufacturer for the use of locally available sand or abrasive material. The RPR and manufacturer's field representative should verify acceptance during application of Control strips indicated under paragraph 608-3.2.

The Contractor shall provide a certification showing particle size analysis and properties of the material delivered for use on the project. The Contractor's certification may be subject to verification by testing the material delivered for use on the project.

**608-2.2 Asphalt Emulsion.** The asphalt emulsion shall meet the properties in the following table:

**Concentrated Asphalt Emulsion Properties**

Properties	Specification	Limits
Viscosity, Saybolt Furol at 77°F (25°C)	ASTM D7496	20 – 100 seconds
Residue by Distillation or Evaporation	ASTM D6997 or ASTM D6934	57% minimum
Sieve Test	ASTM D6933	0.1% maximum
24-hour Stability	ASTM D6930	1% maximum
5-day Settlement Test	ASTM D6930	5.0% maximum
Particle Charge <sup>1</sup>	ASTM D7402	Positive 6.5 maximum pH

<sup>1</sup> pH may be used in lieu of the particle charge test which is sometimes inconclusive in slow setting, asphalt emulsions.

The asphalt material base residue shall contain not less than 20% gilsonite, or uitaite and shall not contain any tall oil pitch or coal tar material and shall contain no less than three and a half percent (3.5%) polymer.

**Tests on Residue from Distillation or Evaporation**

Properties	Specification	Limits
Viscosity at 275°F (135°C)	ASTM D4402	1750 cts maximum
Solubility in 1, 1, 1 trichloroethylene	ASTM D2042	97.5% minimum
Penetration	ASTM D5	50 dmm maximum
Asphaltenes	ASTM D2007	15% minimum
Saturates	ASTM D2007	15% maximum
Polar Compounds	ASTM D2007	25% minimum
Aromatics	ASTM D2007	15% minimum

The asphalt emulsion, when diluted in the volumetric proportion of two parts concentrated asphalt material to one part hot water shall have the following properties:

**Two-to-One Dilution Emulsion Properties**

Properties	Specification	Limits
<b>In Ready-to-Apply Form, two parts concentrate to one part water, by volume</b>		
Viscosity, Saybolt Furol at 77°F (25°C)	ASTM D7496	5 – 50 seconds
Residue by Distillation or Evaporation	ASTM D6997 or ASTM D6934	38% minimum
Pumping Stability <sup>1</sup>		Pass



- <sup>1</sup> Pumping stability is tested by pumping one pint (475 ml) of seal coat diluted one (1) part concentrate to one (1) part water, at 77°F (25°C), through a 1/4-inch (6 mm) gear pump operating 1750 rpm for 10 minutes with no significant separation or coagulation.

The Contractor shall provide a copy of the manufacturer's Certificate of Analysis (COA) for the emulsified asphalt delivered to the project. If the asphalt emulsion is diluted at other than the manufacturer's facility, the Contractor shall provide a supplemental COA from an independent laboratory verifying the asphalt emulsion properties.

The COA shall be provided to and approved by the RPR before the emulsified asphalt is applied. The furnishing of the vendor's certified test report for the asphalt material shall not be interpreted as a basis for final acceptance. The manufacturer's COA may be subject to verification by testing the material delivered for use on the project.

The asphalt material storage and handling temperature shall be between 50°F - 160°F (10°C - 70°C) and the material shall be protected from freezing, or whenever outside temperature drops below 40°F (4°C) for prolonged time periods.

Contractor shall provide a list of airport pavement projects, exposed to similar climate conditions, where this product has been successfully applied within at least 5 years of the project.

**608-2.3 Water.** Water used in mixing or curing shall be from potable water sources. Other sources shall be tested in accordance with ASTM C1602 prior to use. Water used in making and diluting the emulsion shall be potable, with a maximum hardness of 90ppm calcium and 15ppm magnesium; deleterious iron, sulfates, and phosphates maximum 7ppm, and less than 1ppm of organic byproducts. Water shall be a minimum of 140°F (60°C) prior to adding to emulsion.

**608-2.4 Polymer.** The polymer shall meet the properties in the following table:

**Polymer Properties**

Properties	Limits
Solids Content	47% to 65%, Percent by Weight
Weight	8.0 to 9.0 pounds/gallon (1.07 to 1.17 kg/L)
pH	3.0 to 8.0
Particle Charge	Nonionic/Cationic
Mechanical Stability	Excellent
Film Forming Temperature, °C	+5°C, minimum
Tg, °C	22°C, maximum

The manufacturer shall provide a copy of the Certificate of Analysis (COA) for the polymer used in the seal coat; and the Contractor shall include the COA with the emulsified asphalt COA when submitting to the RPR.

**608-2.5 Seal Coat with Aggregate.** Not used.

## COMPOSITION AND APPLICATION RATE

**608-3.1 Application Rate.** The approximate amounts of materials per square yard (square meter) for the asphalt surface treatment shall be as provided in the table for the treatment area(s) at the specified dilution rate(s) as noted on the plans. The actual application rates will vary within the range specified to suit field conditions and will be recommended by the manufacturer's representative and approved by the RPR from the test area/sections evaluation.

**Application Rate**

<b>Dilution Rate</b>	<b>Quantity of Emulsion gal/yd<sup>2</sup> (l/m<sup>2</sup>)</b>	<b>Quantity of Aggregate lb/yd<sup>2</sup> (kg/m<sup>2</sup>)</b>
<b>2:1</b>	0.08-0.17 (0.36-0.77)	0.20-0.50 (0.11-0.27)

**608-3.2 Control areas and control strips.** Prior to full application, the control strip must be accepted by the RPR. The surface preparation, personnel, equipment, and method of operation used on the test area(s) and control strip(s) shall be the same as used on the remainder of the work.

A qualified manufacturer's representative shall be present in the field to assist the Contractor in applying control areas and/or control strips to determine the appropriate application rate of both emulsion and aggregate to be approved by the RPR.

A test area(s) and control strip(s) shall be applied for each differing asphalt pavement surface identified in the project. The test area(s) and control strip(s) shall be used to determine the material application rate(s) of both emulsion and sand prior to full production.

**a. For taxiway, taxilane and apron surfaces.** Prior to full application, the Contractor shall place test areas at varying application rates as recommended by the Contractor's manufacturer's representative to determine appropriate application rate(s). The test areas will be located on representative section(s) of the pavement to receive the asphalt surface treatment designated by the RPR.

**b. For runway and high-speed exit taxiway surfaces.** Prior to full application, the Contractor shall place a series of control strips a minimum of 300 feet (90 m) long by 12 feet (3.6 m) wide, or width of anticipated application, whichever is greater, at varying application rates as recommended by the manufacturer's representative and acceptable to the RPR to determine appropriate application rate(s). The control strips should be separated by a minimum of 200 feet between control strips. The area to be tested will be located on a representative section of the pavement to receive the asphalt surface treatment designated by the RPR. The control strips should be placed under similar field conditions as anticipated for the actual application. The skid resistance of the existing pavement shall be determined for each control strip with a continuous friction measuring equipment (CFME). The skid resistance of existing pavement can be immediately adjacent to the control strip or at the same location as the control strip if testing prior to application. The Contractor may begin testing the skid resistance of runway and high-speed exit taxiway control strips after application of the asphalt surface treatment has fully cured, generally 8 to 36 hours after application of the control strips depending on site and environmental conditions. Aircraft shall not be permitted on the runway or high speed exit taxiway control strips until such time as the Contractor validates that its surface friction meets the maintenance planning friction levels in AC 150/5320-12, Table 3-2 when tested at speeds of 40 and 60 mph (65 and 95 km/h) wet with approved CFME.

If the control strip should prove to be unsatisfactory, necessary adjustments to the application rate, placement operations, and equipment shall be made. Additional control strips shall be placed and additional skid resistance tests performed and evaluated. Full production shall not begin without the

RPR's approval of an appropriate application rate(s). Acceptable control strips shall be paid for in accordance with paragraph 608-8.1.

If operational conditions preclude placement of a control strip on the pavement to be sealed, it may be applied on a pavement with similar surface texture.

## CONSTRUCTION METHODS

**608-4.1 Worker safety.** The Contractor shall obtain a Safety Data Sheet (SDS) for both the asphalt emulsion product and sand and require workmen to follow the manufacturer's recommended safety precautions.

**608-4.2 Weather limitations.** The asphalt emulsion shall be applied only when the existing pavement surface is dry and when the weather is not foggy, rainy, or when the wind velocity will prevent the uniform application of the material. No material shall be applied in strong winds that interfere with the uniform application of the material(s), or when dust or sand is blowing or when rain is anticipated within eight (8) hours of application completion. The atmospheric temperature and the pavement surface temperature shall both be at, or above 60°F (16°C) and rising. Seal coat shall not be applied when pavement temperatures are expected to exceed 130°F within the subsequent 72 hours if traffic will be opened on pavement within those 72 hours. During application, account for wind drift. Cover existing buildings, structures, runway edge lights, taxiway edge lights, informational signs, retro-reflective marking and in-pavement duct markers as necessary to protect against overspray before applying the emulsion. Should emulsion get on any light or marker fixture, promptly clean the fixture. If cleaning is not satisfactory to the RPR, the Contractor shall replace any light, sign or marker with equivalent equipment at no cost to the Owner.

**608-4.3 Equipment and tools.** The Contractor shall furnish all equipment, tools, and machinery necessary for the performance of the work.

**a. Pressure distributor.** The emulsion shall be applied with a manufacturer-approved computer rate-controlled asphalt distributor. The equipment shall be in good working order and contain no contaminants or diluents in the tank. Spray bar tips must be clean, free of burrs, and of a size to maintain an even distribution of the emulsion. Any type of tip or pressure source is suitable that will maintain predetermined flow rates and constant pressure during the application process with application speeds under eight (8) miles per hour (13 km per hour) or seven hundred (700) feet per minute (213 m per minute). The equipment will be tested under pressure for leaks and to ensure proper set-up before use. The Contractor will provide verification of truck set-up (via a test-shot area), including but not limited to, nozzle tip size appropriate for application per nozzle manufacturer, spray-bar height and pressure and pump speed appropriate for the viscosity and temperature of sealer material, evidence of triple-overlap spray pattern, lack of leaks, and any other factors relevant to ensure the truck is in good working order before use.

The distributor truck shall be equipped with a 12-foot (3.7-m), minimum, spray bar with individual nozzle control. The distributor truck shall be capable of specific application rates in the range of 0.05 to 0.25 gallons per square yard (0.15 to 0.80 liters per square meter). These rates shall be computer-controlled rather than mechanical. The distributor truck shall have an easily accessible thermometer that constantly monitors the temperature of the emulsion, and have an operable mechanical tank gauge that can be used to cross-check the computer accuracy.

The distributor truck shall effectively heat and mix the material to the required temperature prior to application in accordance with the manufacturer's recommendations.

The distributor shall be equipped with a hand sprayer to spray the emulsion in areas not accessible to the distributor truck.

**b. Aggregate spreader.** The asphalt distributor truck will be equipped with an aggregate spreader mounted to the distributor truck that can apply sand to the emulsion in a single pass operation without driving through wet emulsion. The aggregate spreader shall be equipped with a variable control system capable of uniformly distributing the sand at the specified rate at varying application widths and speeds. The aggregate spreader must be adjusted to produce an even and accurate application of specified aggregate. Prior to any seal coat application, the aggregate spreader will be calibrated onsite to ensure acceptable uniformity of spread. The RPR will observe the calibration and verify the results. The aggregate spreader will be re-calibrated each time the aggregate rate is changed either during the application of test strips or production. The Contractor may consult the seal coat manufacturer representative for procedure and guidance. The sander shall have a minimum hopper capacity of 3,000 pounds (1361 kg) of sand. Push-type hand sanders will be allowed for use around lights, signs and other obstructions, if necessary.

**c. Power broom/blower.** A power broom and/or blower shall be provided for removing loose material from the surface to be treated.

**d. Equipment calibration.** Asphalt distributors must be calibrated within the same construction season in accordance with ASTM D2995. The Contractor must furnish a current calibration certification for the asphalt distributor truck from any State or other agency as approved by the RPR.

**608-4.4 Preparation of asphalt pavement surfaces.** Clean pavement surface immediately prior to placing the seal coat so that it is free of dust, dirt, grease, vegetation, oil or any type of objectionable surface film. Remove oil or grease from the asphalt pavement by scrubbing with a detergent, washing thoroughly with clean water, and then treat these areas with a spot primer. Any additional surface preparation, such as crack repair, shall be in accordance with Item P-101, paragraph 101-3.6.

**a. New asphalt pavement surfaces.** Allow new asphalt pavement surfaces to cure so that there is no concentration of oils on the surface.

Perform a water-break-free test to confirm that the surface oils have degraded and dissipated. (Cast approximately one gallon (4 liters) of clean water out over the surface. The water should sheet out and wet the surface uniformly without crawling or showing oil rings.) If signs of crawling or oil rings are apparent on the pavement surface, additional time must be allowed for additional curing and retesting of the pavement surface prior to treatment.

**608-4.5 Emulsion mixing.** The application emulsion shall be obtained by blending asphalt material concentrate, water and polymer, if specified. Always add heated water to the asphalt material concentrate, never add asphalt material concentrate to heated water. Mix one part heated water to one part or two parts asphalt material concentrate, by volume.

Add 1% polymer, by volume, to the emulsion mix. If the polymer is added to the emulsion mix at the plant, submit weight scale tickets to the RPR. As an option, the polymer may be added to the emulsion mix at the job site provided the polymer is added slowly while the asphalt distributor truck circulating pump is running. The mix must be agitated for a minimum of 15 minutes or until the polymer is mixed to the satisfaction of the RPR.

**608-4.6 Application of asphalt emulsion.** The asphalt emulsion shall be applied using a pressure distributor upon the properly prepared, clean and dry surface at the application rate recommended by the manufacturer's representative and approved by the RPR from the test area/sections evaluation for each designated treatment area. The asphalt emulsion should be applied at a temperature between 130°F (54°C) and 160°F (70°C) or in accordance with the manufacturer's recommendation.

If low spots and depressions greater than 1/2 inch (12 mm) in depth in the pavement surface cause ponding or puddling of the applied materials, the pavement surface shall be lightly broomed with a broom or brush type squeegee until the pavement surface is free of any pools of excess material.

During all applications, the surfaces of adjacent structures shall be protected to prevent their being spattered or marred.

**608-4.7 Application of aggregate material.** Immediately following the application of the asphalt emulsion, friction sand at the rate recommended by the manufacturer's representative and approved by the RPR from the test area/sections evaluation for each designated application area, shall be spread uniformly over the asphalt emulsion in a single-pass operation simultaneous with the sealer application. The aggregate shall be spread to the same width of application as the asphalt material and shall not be applied in such thickness as to cause blanketing.

Sprinkling of additional aggregate material, and spraying additional asphalt material over areas that show up having insufficient cover or bitumen, shall be done by hand whenever necessary. In areas where hand work is necessitated, the sand shall be applied before the sealant begins to break.

Minimize aggregate from being broadcast and accumulating on the untreated pavement adjacent to an application pass. Prior to the next application pass, the Contractor shall clean areas of excess or loose aggregate and remove from project site.

### QUALITY CONTROL (QC)

**608-5.1 Manufacturer's representation.** The manufacturer's representative knowledgeable of the material, procedures, and equipment described in the specification is responsible to assist the Contractor and RPR in determining the appropriate application rates of the emulsion and aggregate, as well as recommendations for proper preparation and start-up of seal coat application. Documentation of the manufacturer representative's experience and knowledge for applying the seal coat product shall be furnished to the RPR a minimum of 10 work days prior to placement of the control strips. The cost of the manufacturer's representative shall be included in the Contractor's bid price.

**608-5.2 Contractor qualifications.** The Contractor shall provide documentation to the RPR that the seal coat Contractor is qualified to apply the seal coat, including personnel, and equipment, and has made at least three (3) applications similar to this project in the past two (2) years.

### MATERIAL ACCEPTANCE

**608-6.1 Application rate.** The rate of application of the asphalt emulsion shall be verified at least twice per day.

**608-6.2 Friction tests.** Not used.

### METHOD OF MEASUREMENT

**608-7.1 Asphalt surface treatment.** The quantity of asphalt surface treatment shall be measured by the square yards of material applied in accordance with the plans and specifications and accepted by the RPR.

The Contractor must furnish the RPR with the certified weigh bills when materials are received for the asphalt material used under this contract. The Contractor must not remove material from the tank car or storage tank until initial amounts and temperature measurements have been verified.

### BASIS OF PAYMENT

**608-8.1** Payment shall be made at the contract unit price per square yard for the asphalt surface treatment applied and accepted by the RPR, and the contract unit price per lump sum for runway friction testing.

This price shall be full compensation for all surface preparation, furnishing all materials, delivery and application of these materials, for all labor, equipment, tools, and incidentals necessary to complete the item, and any costs associated with furnishing a qualified manufacturer's representative to assist with control strips.

Payment will be made under:

Item P-608-8.1	Emulsified Asphalt Seal Coat – per square yard
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### REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

#### ASTM International (ASTM)

ASTM C117	Standard Test Method for Materials Finer than 75- $\mu$ m (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C1602	Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete
ASTM D5	Standard Test Method for Penetration of Asphalt Materials
ASTM D244	Standard Test Methods and Practices for Emulsified Asphalts
ASTM D2007	Standard Test Method for Characteristic Groups in Rubber Extender and Processing Oils and Other Petroleum-Derived Oils by the Clay-Gel Absorption Chromatographic Method
ASTM D2042	Standard Test Method for Solubility of Asphalt Materials in Trichloroethylene
ASTM D2995	Standard Practice for Estimating Application Rate of Bituminous Distributors
ASTM D4402	Standard Test Method for Viscosity Determination of Asphalt at Elevated Temperatures Using a Rotational Viscometer
ASTM D5340	Standard Test Method for Airport Pavement Condition Index Surveys

#### Advisory Circulars (AC)

AC 150/5320-12	Measurement, Construction, and Maintenance of Skid-Resistant Airport Pavement Surfaces
AC 150/5320-17	Airfield Pavement Surface Evaluation and Rating (PASER) Manuals
AC 150/5380-6	Guidelines and Procedures for Maintenance of Airport Pavements

### END OF ITEM P-608

## Item P-610 Concrete for Miscellaneous Structures

### DESCRIPTION

**610-1.1** This item shall consist of concrete and reinforcement, as shown on the plans, prepared and constructed in accordance with these specifications. This specification shall be used for all concrete other than airfield pavement which are cast-in-place.

### MATERIALS

**610-2.1 General.** Only approved materials, conforming to the requirements of these specifications, shall be used in the work. Materials may be subject to inspection and tests at any time during their preparation or use. The source of all materials shall be approved by the Resident Project Representative (RPR) before delivery or use in the work. Representative preliminary samples of the materials shall be submitted by the Contractor, when required, for examination and test. Materials shall be stored and handled to ensure preservation of their quality and fitness for use and shall be located to facilitate prompt inspection. All equipment for handling and transporting materials and concrete must be clean before any material or concrete is placed in them.

The use of pit-run aggregates shall not be permitted unless the pit-run aggregate has been screened and washed, and all fine and coarse aggregates stored separately and kept clean. The mixing of different aggregates from different sources in one storage stockpile or alternating batches of different aggregates shall not be permitted.

**a. Reactivity.** Fine aggregate and coarse aggregates to be used in all concrete shall have been tested separately within six months of the project in accordance with ASTM C1260. Test results shall be submitted to the RPR. The aggregate shall be considered innocuous if the expansion of test specimens, tested in accordance with ASTM C1260, does not exceed 0.08% at 14 days (16 days from casting). If the expansion either or both test specimen is greater than 0.08% at 14 days, but less than 0.20%, a minimum of 25% of Type F fly ash, or between 40% and 55% of slag cement shall be used in the concrete mix.

If the expansion is greater than 0.20%, the aggregates shall not be used, and test results for other aggregates must be submitted for evaluation; or aggregates that meet P-501 reactivity test requirements may be utilized.

**610-2.2 Coarse aggregate.** The coarse aggregate for concrete shall meet the requirements of ASTM C33 and the requirements of Table 4, Class Designation 5S; and the grading requirements shown below, as required for the project.

### Coarse Aggregate Grading Requirements

Maximum Aggregate Size	ASTM C33, Table 3 Grading Requirements (Size No.)
1 1/2 inch (37.5 mm)	467 or 4 and 67
1 inch (25 mm)	57
3/4 inch (19 mm)	67
1/2 inch (12.5 mm)	7

**610-2.2.1 Coarse Aggregate susceptibility to durability (D) cracking.** Not used.

**610-2.3 Fine aggregate.** The fine aggregate for concrete shall meet all fine aggregate requirements of ASTM C33.

**610-2.4 Cement.** Cement shall conform to the requirements of ASTM C150 Type I, IA, II, IIA, III, IIIA or V. The chemical requirements for all cement types specified should meet suitable criteria for deleterious activity. Low alkali cements shall be less than 0.6% equivalent alkalis. Total alkalis (Na<sub>2</sub>O and K<sub>2</sub>O) of the cement secured for the production of concrete shall be independently verified in accordance with ASTM C114 or ASTM C1365.

#### 610-2.5 Cementitious materials.

**a. Fly ash.** Fly ash shall meet the requirements of ASTM C618, with the exception of loss of ignition, where the maximum shall be less than 6%. Fly ash shall have a Calcium Oxide (CaO) content of less than 15% and a total available alkali content less than 3% per ASTM C311. Fly ash produced in furnace operations using liming materials or soda ash (sodium carbonate) as an additive shall not be acceptable. The Contractor shall furnish the previous three most recent, consecutive ASTM C618 reports for each source of fly ash proposed in the concrete mix, and shall furnish each additional report as they become available during the project. The reports can be used for acceptance or the material may be tested independently by the RPR.

**b. Slag cement (ground granulated blast furnace (GGBF)).** Slag cement shall conform to ASTM C989, Grade 100 or Grade 120. Slag cement shall be used only at a rate between 25% and 55% of the total cementitious material by mass.

**610-2.6 Water.** Water used in mixing or curing shall be from potable water sources. Other sources shall be tested in accordance with ASTM C1602 prior to use.

**610-2.7 Admixtures.** The Contractor shall submit certificates indicating that the material to be furnished meets all of the requirements indicated below. In addition, the RPR may require the Contractor to submit complete test data from an approved laboratory showing that the material to be furnished meets all of the requirements of the cited specifications. Subsequent tests may be made of samples taken by the RPR from the supply of the material being furnished or proposed for use on the work to determine whether the admixture is uniform in quality with that approved.

**a. Air-entraining admixtures.** Air-entraining admixtures shall meet the requirements of ASTM C260 and shall consistently entrain the air content in the specified ranges under field conditions. The air-entrainment agent and any water reducer admixture shall be compatible.



**b. Water-reducing admixtures.** Water-reducing admixture shall meet the requirements of ASTM C494, Type A, B, or D. ASTM C494, Type F and G high range water reducing admixtures and ASTM C1017 flowable admixtures shall not be used.

**c. Other chemical admixtures.** The use of set retarding, and set-accelerating admixtures shall be approved by the RPR. Retarding shall meet the requirements of ASTM C494, Type A, B, or D and set-accelerating shall meet the requirements of ASTM C494, Type C. Calcium chloride and admixtures containing calcium chloride shall not be used.

**610-2.8 Premolded joint material.** Premolded joint material for expansion joints shall meet the requirements of ASTM D1751.

**610-2.9 Joint filler.** The filler for joints shall meet the requirements of Item P-605, unless otherwise specified.

**610-2.10 Steel reinforcement.** Reinforcing shall consist of reinforcing steel conforming to the requirements of ASTM A615, Grade 60.

**610-2.11 Materials for curing concrete.** Curing materials shall conform to one of the following:

#### Materials for Curing

Waterproof paper	ASTM C171
Clear or white Polyethylene Sheeting	ASTM C171
White-pigmented Liquid Membrane-Forming Compound, Type 2, Class B	ASTM C309

### CONSTRUCTION METHODS

**610-3.1 General.** The Contractor shall furnish all labor, materials, and services necessary for, and incidental to, the completion of all work as shown on the drawings and specified here. All machinery and equipment used by the Contractor on the work, shall be of sufficient size to meet the requirements of the work. All work shall be subject to the inspection and approval of the RPR.

**610-3.2 Concrete Mixture.** The concrete shall develop a compressive strength of 4000 psi in 28 days as determined by test cylinders made in accordance with ASTM C31 and tested in accordance with ASTM C39. The concrete shall contain not less than 470 pounds of cementitious material per cubic yard (280 kg per cubic meter). The water cementitious ratio shall not exceed 0.45 by weight. The air content of the concrete shall be 5% +/- 1.2% as determined by ASTM C231 and shall have a slump of not more than 4 inches (100 mm) as determined by ASTM C143.

**610-3.3 Mixing.** Concrete may be mixed at the construction site, at a central point, or wholly or in part in truck mixers. The concrete shall be mixed and delivered in accordance with the requirements of ASTM C94 or ASTM C685.

The concrete shall be mixed only in quantities required for immediate use. Concrete shall not be mixed while the air temperature is below 40°F (4°C) without the RPRs approval. If approval is granted for mixing under such conditions, aggregates or water, or both, shall be heated and the concrete shall be placed at a temperature not less than 50°F (10°C) nor more than 100°F (38°C). The Contractor shall be held responsible for any defective work, resulting from freezing or injury in any manner during placing and curing, and shall replace such work at his expense.

Retempering of concrete by adding water or any other material is not permitted.

The rate of delivery of concrete to the job shall be sufficient to allow uninterrupted placement of the concrete.

**610-3.4 Forms.** Concrete shall not be placed until all the forms and reinforcements have been inspected and approved by the RPR. Forms shall be of suitable material and shall be of the type, size, shape, quality, and strength to build the structure as shown on the plans. The forms shall be true to line and grade and shall be mortar-tight and sufficiently rigid to prevent displacement and sagging between supports. The surfaces of forms shall be smooth and free from irregularities, dents, sags, and holes. The Contractor shall be responsible for their adequacy.

The internal form ties shall be arranged so no metal will show in the concrete surface or discolor the surface when exposed to weathering when the forms are removed. All forms shall be wetted with water or with a non-staining mineral oil, which shall be applied immediately before the concrete is placed. Forms shall be constructed so they can be removed without injuring the concrete or concrete surface.

**610-3.5 Placing reinforcement.** All reinforcement shall be accurately placed, as shown on the plans, and shall be firmly held in position during concrete placement. Bars shall be fastened together at intersections. The reinforcement shall be supported by approved metal chairs. Shop drawings, lists, and bending details shall be supplied by the Contractor when required.

**610-3.6 Embedded items.** Before placing concrete, all embedded items shall be firmly and securely fastened in place as indicated. All embedded items shall be clean and free from coating, rust, scale, oil, or any foreign matter. The concrete shall be spaded and consolidated around and against embedded items. The embedding of wood shall not be allowed.

**610-3.7 Concrete Consistency.** The Contractor shall monitor the consistency of the concrete delivered to the project site; collect each batch ticket; check temperature; and perform slump tests on each truck at the project site in accordance with ASTM C143.

**610-3.8 Placing concrete.** All concrete shall be placed during daylight hours, unless otherwise approved. The concrete shall not be placed until the depth and condition of foundations, the adequacy of forms and falsework, and the placing of the steel reinforcing have been approved by the RPR. Concrete shall be placed as soon as practical after mixing, but in no case later than one (1) hour after water has been added to the mix. The method and manner of placing shall avoid segregation and displacement of the reinforcement. Troughs, pipes, and chutes shall be used as an aid in placing concrete when necessary. The concrete shall not be dropped from a height of more than 5 feet (1.5 m). Concrete shall be deposited as nearly as practical in its final position to avoid segregation due to rehandling or flowing. Do not subject concrete to procedures which cause segregation. Concrete shall be placed on clean, damp surfaces, free from running water, or on a properly consolidated soil foundation.

**610-3.9 Vibration.** Vibration shall follow the guidelines in American Concrete Institute (ACI) Committee 309R, Guide for Consolidation of Concrete.

**610-3.10 Joints.** Joints shall be constructed as indicated on the plans.

**610-3.11 Finishing.** All exposed concrete surfaces shall be true, smooth, and free from open or rough areas, depressions, or projections. All concrete horizontal plane surfaces shall be brought flush to the proper elevation with the finished top surface struck-off with a straightedge and floated.

**610-3.12 Curing and protection.** All concrete shall be properly cured in accordance with the recommendations in American Concrete Institute (ACI) 308R, Guide to External Curing of Concrete. The concrete shall be protected from damage until project acceptance.

**610-3.13 Cold weather placing.** When concrete is placed at temperatures below 40°F (4°C), follow the cold weather concreting recommendations found in ACI 306R, Cold Weather Concreting.

**610-3.14 Hot weather placing.** When concrete is placed in hot weather greater than 85°F (30 °C), follow the hot weather concreting recommendations found in ACI 305R, Hot Weather Concreting.

### QUALITY ASSURANCE (QA)

**610-4.1 Quality Assurance sampling and testing.** Concrete for each day's placement will be accepted on the basis of the compressive strength specified in paragraph 610-3.2. The RPR will sample the concrete in accordance with ASTM C172; test the slump in accordance with ASTM C143; test air content in accordance with ASTM C231; make and cure compressive strength specimens in accordance with ASTM C31; and test in accordance with ASTM C39. The QA testing agency will meet the requirements of ASTM C1077.

The Contractor shall provide adequate facilities for the initial curing of cylinders.

**610-4.2 Defective work.** Any defective work that cannot be satisfactorily repaired as determined by the RPR, shall be removed and replaced at the Contractor's expense. Defective work includes, but is not limited to, uneven dimensions, honeycombing and other voids on the surface or edges of the concrete.

### METHOD OF MEASUREMENT

**610-5.1** Concrete shall be considered incidental and no separate payment shall be made.

### BASIS OF PAYMENT

**610-6.1** Concrete shall be considered incidental and no separate payment shall be made.

### REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM A184	Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement
ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM A704	Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement
ASTM A706	Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement
ASTM A775	Standard Specification for Epoxy-Coated Steel Reinforcing Bars
ASTM A884	Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement
ASTM A934	Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars
ASTM A1064	Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete

ASTM C31	Standard Practice for Making and Curing Concrete Test Specimens in the Field
ASTM C33	Standard Specification for Concrete Aggregates
ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C94	Standard Specification for Ready-Mixed Concrete
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM C114	Standard Test Methods for Chemical Analysis of Hydraulic Cement
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
ASTM C150	Standard Specification for Portland Cement
ASTM C171	Standard Specification for Sheet Materials for Curing Concrete
ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete
ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C260	Standard Specification for Air-Entraining Admixtures for Concrete
ASTM C309	Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C311	Standard Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland-Cement Concrete
ASTM C494	Standard Specification for Chemical Admixtures for Concrete
ASTM C618	Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
ASTM C666	Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
ASTM C685	Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing
ASTM C989	Standard Specification for Slag Cement for Use in Concrete and Mortars
ASTM C1017	Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete
ASTM C1077	Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
ASTM C1157	Standard Performance Specification for Hydraulic Cement
ASTM C1260	Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)

ASTM C1365	Standard Test Method for Determination of the Proportion of Phases in Portland Cement and Portland-Cement Clinker Using X-Ray Powder Diffraction Analysis
ASTM C1602	Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete
ASTM D1751	Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Asphalt Types)
ASTM D1752	Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction

American Concrete Institute (ACI)

ACI 305R	Hot Weather Concreting
ACI 306R	Cold Weather Concreting
ACI 308R	Guide to External Curing of Concrete
ACI 309R	Guide for Consolidation of Concrete

**END OF ITEM P-610**

## Item P-620 Apron Marking

### DESCRIPTION

**620-1.1** This item shall consist of the preparation and painting of numbers, markings, and stripes on the surface of aprons, in accordance with these specifications and at the locations shown on the plans, or as directed by the Resident Project Representative (RPR). The terms “paint” and “marking material” as well as “painting” and “application of markings” are interchangeable throughout this specification.

### MATERIALS

**620-2.1 Materials acceptance.** The Contractor shall furnish manufacturer’s certified test reports for materials shipped to the project. The certified test reports shall include a statement that the materials meet the specification requirements. This certification along with a copy of the paint manufacturer’s surface preparation; marking materials, including adhesion, flow promoting and/or floatation additive; and application requirements must be submitted and approved by the Resident Project Representative (RPR) prior to the initial application of markings. The reports can be used for material acceptance or the RPR may perform verification testing. The reports shall not be interpreted as a basis for payment. The Contractor shall notify the RPR upon arrival of a shipment of materials to the site. All material shall arrive in sealed containers that are easily quantifiable for inspection by the RPR.

**620-2.2 Marking materials.**

**a. Paint.** Paint shall be waterborne, Type I, II or III in accordance with the requirements of this paragraph. Paint colors shall comply with Federal Standard No. 595.

Paint Color	Fed Std. No 595 Color Number
White	37925
Yellow	33538 or 33655
Black	37038

Waterborne or solvent base black paint should be used to outline a border at least 6 inches (150 mm) wide around markings on all light-colored pavements. Preformed thermoplastic markings shall have a non-reflectorized black border integral to the marking.

Application Rates for Paint and Glass Beads for Table 1

Paint <sup>2</sup>		Glass Beads <sup>3</sup>		
Type	Application Rate Maximum	Type I, Gradation A <sup>1</sup> Minimum	Type III Minimum	Type IV <sup>1</sup> Minimum
Waterborne Type III	90 ft <sup>2</sup> /gal (2.2 m <sup>2</sup> /l)	7 lb/gal (0.85 kg/l)	8 lb/gal (1.0 kg/l)	
Interim Marking Waterborne Type I or II	230 ft <sup>2</sup> /gal (5.6 m <sup>2</sup> /l)	No beads	No beads	No beads

<sup>1</sup>Glass bead application rate for Red and Pink paint shall be reduced by 2 lb/gal (0.24 kg/l) for Type I and Type IV beads.

<sup>2</sup> See paint type(s) specified below.

<sup>3</sup> See paragraph 620-2.2b.

**Waterborne paint.** Waterborne paint shall meet the requirements of Federal Specification TT-P-1952F, Type I, Type II, or Type III. The non-volatile portion of the vehicle for all paint types shall be composed of a 100% acrylic polymer as determined by infrared spectral analysis. The acrylic resin used for Type III shall be 100% cross linking acrylic as evidenced by infrared peaks at wavelengths 1568, 1624, and 1672 cm-l with intensities equal to those produced by an acrylic resin known to be 100% cross linking.

**b. Reflective media.** Glass beads for white and yellow paint shall meet the requirements for Federal Specification TT-B-1325D Type I or III.

Glass beads shall be treated with all compatible coupling agents recommended by the manufacturers of the paint and reflective media to ensure adhesion and embedment.

Glass beads shall not be used in black.

## CONSTRUCTION METHODS

**620-3.1 Weather limitations.** Painting shall only be performed when the surface is dry, and the ambient temperature and the pavement surface temperature meet the manufacturer's recommendations in accordance with paragraph 620-2.1. Painting operations shall be discontinued when the ambient or surface temperatures does not meet the manufacturer's recommendations. Markings shall not be applied when the wind speed exceeds 10 mph unless windscreens are used to shroud the material guns. Markings shall not be applied when weather conditions are forecasts to not be within the manufacturers' recommendations for application and dry time.

**620-3.2 Equipment.** Equipment shall include the apparatus necessary to properly clean the existing surface, a mechanical marking machine, a bead dispensing machine, and such auxiliary hand-painting equipment as may be necessary to satisfactorily complete the job.

The mechanical marker shall be an atomizing spray-type or airless type marking machine with automatic glass bead dispensers suitable for application of traffic paint. It shall produce an even and uniform film thickness and appearance of both paint and glass beads at the required coverage and shall apply markings of uniform cross-sections and clear-cut edges without running or spattering and without over spray. The marking equipment for both paint and beads shall be calibrated daily.

**620-3.3 Preparation of surfaces.** Immediately before application of the paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other contaminants that would reduce the bond between the paint and the pavement. Use of any chemicals or impact abrasives during surface preparation shall be approved in advance by the RPR. After the cleaning operations, sweeping, blowing, or rinsing with pressurized water shall be performed to ensure the surface is clean and free of grit or other debris left from the cleaning process.

**a. Preparation of new pavement surfaces.** The area to be painted shall be cleaned by broom, blower, water blasting, or by other methods approved by the RPR to remove all contaminants, including PCC curing compounds, minimizing damage to the pavement surface.

**b. Preparation of pavement to remove existing markings.** Existing pavement markings shall be removed by rotary grinding, water blasting, or by other methods approved by the RPR minimizing damage to the pavement surface. The removal area may need to be larger than the area of the markings to eliminate ghost markings. After removal of markings on asphalt pavements, apply a surface treatment of seal coat in accordance with Item P-608, Emulsified Asphalt Seal Coat, to the 'blocked out' areas to eliminate 'ghost' markings.

**c. Preparation of pavement markings prior to remarking.** Prior to remarking existing markings, loose existing markings must be removed minimizing damage to the pavement surface, with a method approved by the RPR. After removal, the surface shall be cleaned of all residue or debris.

Prior to the application of markings, the Contractor shall certify in writing that the surface is dry and free from dirt, grease, oil, laitance, or other foreign material that would prevent the bond of the paint to the pavement or existing markings. This certification along with a copy of the paint manufactures application and surface preparation requirements must be submitted to the RPR prior to the initial application of markings.

**d. Preparation of temporary markings prior to marking permanent markings.** Prior to applying permanent markings over temporary markings, loose temporary markings must be removed minimizing damage to the pavement surface, with a method approved by the RPR. After removal, the surface shall be cleaned of all residue or debris.

The Contractor shall certify in writing that the surface is dry and free from dirt, grease, oil, laitance, or other foreign material that would prevent the bond of the permanent markings to the existing temporary markings. This certification along with a copy of the paint manufactures application and surface preparation requirements must be submitted to the RPR prior to the initial application of markings.

**620-3.4 Layout of markings.** The proposed markings shall be laid out in advance of the paint application. The locations of markings to receive glass beads shall be shown on the plans.

**620-3.5 Application.** A period of 30 days shall elapse between placement of surface course or seal coat and application of the permanent paint markings. Paint shall be applied at the locations and to the dimensions and spacing shown on the plans. Paint shall not be applied until the layout and condition of the surface has been approved by the RPR.

The edges of the markings shall not vary from a straight line more than 1/2 inch (12 mm) in 50 feet (15 m), and marking dimensions and spacing shall be within the following tolerances:

#### Marking Dimensions and Spacing Tolerance

Dimension and Spacing	Tolerance
36 inch (910 mm) or less	±1/2 inch (12 mm)



<b>Dimension and Spacing</b>	<b>Tolerance</b>
greater than 36 inch to 6 feet (910 mm to 1.85 m)	±1 inch (25 mm)
greater than 6 feet to 60 feet (1.85 m to 18.3 m)	±2 inch (50 mm)
greater than 60 feet (18.3 m)	±3 inch (76 mm)

The paint shall be mixed in accordance with the manufacturer's instructions and applied to the pavement with a marking machine at the rate shown in Table 1. The addition of thinner will not be permitted.

Glass beads shall be distributed upon the marked areas at the locations shown on the plans to receive glass beads immediately after application of the paint. A dispenser shall be furnished that is properly designed for attachment to the marking machine and suitable for dispensing glass beads. Glass beads shall be applied at the rate shown in Table 1. Glass beads shall not be applied to black paint or green paint. Glass beads shall adhere to the cured paint or all marking operations shall cease until corrections are made. Different bead types shall not be mixed. Regular monitoring of glass bead embedment and distribution should be performed.

**620-3.6 Application-preformed thermoplastic airport pavement markings.** Not used.

**620-3.7 Control strip.** Prior to the full application of airfield markings, the Contractor shall prepare a control strip in the presence of the RPR. The Contractor shall demonstrate the surface preparation method and all striping equipment to be used on the project. The marking equipment must achieve the prescribed application rate of paint and population of glass beads (per Table 1) that are properly embedded and evenly distributed across the full width of the marking. Prior to acceptance of the control strip, markings must be evaluated during darkness to ensure a uniform appearance.

**620-3.8 Retro-reflectance.** Not used.

**620-3.9 Protection and cleanup.** After application of the markings, all markings shall be protected from damage until dry. All surfaces shall be protected from excess moisture and/or rain and from disfiguration by spatter, splashes, spillage, or drippings. The Contractor shall remove from the work area all debris, waste, loose reflective media, and by-products generated by the surface preparation and application operations to the satisfaction of the RPR. The Contractor shall dispose of these wastes in strict compliance with all applicable state, local, and federal environmental statutes and regulations.

## **METHOD OF MEASUREMENT**

**620-4.1** The obliteration of existing markings to be paid for shall be measured by the number of square feet.

**620-4.2** The quantity of markings (including reflective media) shall be paid for shall be measured by the number of square feet of painting.

**620-4.3** The quantity of interim markings to be paid for shall be the number of square feet of painting (not including reflective media) performed in accordance with the specifications and accepted by the RPR.

### **BASIS OF PAYMENT**

**620-5.1** Payment for obliteration of existing markings shall be made at the contract unit price per square feet of markings removed. This price shall be full compensation for furnishing all labor, equipment, tools, and incidentals necessary to complete the removal of the existing markings and accepted by the RPR in accordance with these specifications.

**620-5.2** Payment for markings (including reflective media) shall be made at the contract price for the number of square feet of painting. These prices shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item complete in place and accepted by the RPR in accordance with these specifications.

**620-5.3** Payment for interim markings shall be made at the contract price for the number of square feet of painting. This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item and accepted by the RPR in accordance with these specifications.

Payment will be made under:

Item P-620-5.1	Obliteration of Existing Marking - per square foot
Item P-620-5.2	Permanent Marking with Reflective Beads, Yellow - per square foot
Item P-620-5.3	Permanent Marking without Reflective Beads, Black, White or Yellow - per square foot
Item P-620-5.4	Interim Markings (non-reflectorized) - per square foot

### **REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM D476	Standard Classification for Dry Pigmentary Titanium Dioxide Products
ASTM D968	Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
ASTM D1652	Standard Test Method for Epoxy Content of Epoxy Resins
ASTM D2074	Standard Test Method for Total, Primary, Secondary, and Tertiary Amine Values of Fatty Amines by Alternative Indicator Method
ASTM D2240	Standard Test Method for Rubber Property - Durometer Hardness
ASTM D7585	Standard Practice for Evaluating Retroreflective Pavement Markings Using Portable Hand-Operated Instruments
ASTM E303	Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester

ASTM E1710 Standard Test Method for Measurement of Retroreflective Pavement Marking Materials with CEN-Prescribed Geometry Using a Portable Retroreflectometer

ASTM E2302 Standard Test Method for Measurement of the Luminance Coefficient Under Diffuse Illumination of Pavement Marking Materials Using a Portable Reflectometer

ASTM G154 Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials

Code of Federal Regulations (CFR)

40 CFR Part 60, Appendix A-7, Method 24

Determination of volatile matter content, water content, density, volume solids, and weight solids of surface coatings

29 CFR Part 1910.1200 Hazard Communication

Federal Specifications (FED SPEC)

FED SPEC TT-B-1325D Beads (Glass Spheres) Retro-Reflective

FED SPEC TT-P-1952F Paint, Traffic and Airfield Marking, Waterborne

FED STD 595 Colors used in Government Procurement

Commercial Item Description

A-A-2886B Paint, Traffic, Solvent Based

Advisory Circulars (AC)

AC 150/5340-1 Standards for Airport Markings

AC 150/5320-12 Measurement, Construction, and Maintenance of Skid Resistant Airport Pavement Surfaces

**END OF ITEM P-620**

**Item P-623 Emulsified Asphalt Spray Seal Coat****DESCRIPTION**

**623-1.1** This item shall consist of the application of a polymer modified, asphalt emulsion spray seal coat (seal coat) composed of an emulsion of binders prepared from crude petroleum, mineral fillers, water and polymer, applied to an existing, previously prepared asphalt surface. The seal coat shall be applied in accordance with these specifications, and as shown on the plans or as directed by the Resident Project Representative (RPR).

**623-1.2 Application rate per square yard (square meter).** The approximate amounts of seal coat per square yard (square meter) for the spray seal will be applied as provided in the Application Rate Table. The actual application rates will vary within the range specified to suit field conditions and will be recommended by the manufacturer's representative and approved by the RPR from the test area/sections evaluation.

**Application Rate**

	<b>2-coat application</b>	<b>3-coat application</b>
<b>1<sup>st</sup> Coat</b>	0.14 - 0.20	0.14 - 0.20
<b>2<sup>nd</sup> Coat</b>	0.10 - 0.20	0.10 - 0.20
<b>3<sup>rd</sup> Coat</b>	-	0.08 - 0.15
<b>Total Application</b>	0.30 minimum	0.30 – 0.55

**MATERIALS**

**623-2.1 Polymer modified asphalt emulsion spray seal (seal coat).** A seal coat fortified with fillers created from binders prepared from crude petroleum shall meet the properties in the following table:

**Polymer Modified Asphalt Emulsion Spray Seal Properties<sup>1</sup>**

Property	Characteristics	
	Minimum	Maximum
Density at 77°F (25°C), lb./gal (g/mL)	9 (1.0)	12 (1.5)
Residue by evaporation, %	44	...
Water content, %	...	56
Ash content of residue, %	30	40
Uniformity	Uniform homogeneous consistency.	
Wet film continuity	No separation, coagulation, or settlement that cannot be overcome by moderate agitation.	
Resistance to heat	No blistering, sagging, or slipping.	
Resistance to water	No loss of adhesion and no blistering or tendency to re-emulsify.	
Flash point	No tendency to flash.	
Flexibility	No flaking, cracking, or loss of adhesion to the substrate.	
Polymer modification	Minimum 3% by weight of asphalt binder.	

<sup>1</sup> For water content testing, use ASTM Test Method D95. For flash point testing, use ASTM Test Method D93. For other properties, use AASHTO T 59 and T 111.

The Contractor shall provide a copy of the manufacturer's Certificate of Analysis (COA) for material delivered to the project. If the asphalt emulsion is diluted at other than the manufacturer's facility, the Contractor shall provide a supplemental COA from an independent laboratory verifying the asphalt emulsion properties. The COA shall be provided to and approved by the RPR before material is applied. The furnishing of the vendor's certified test report for the asphalt material shall not be interpreted as a basis for final acceptance. The manufacturer's COA may be subject to verification by testing the material delivered for use on the project.

**623-2.2 Polymer modification.** The type of polymer used for modification shall be chosen by the manufacturer. The polymer modifier shall be incorporated in the manufacturing process. The Contractor shall submit manufacturer's technical data, the manufacturer's certification indicating that the polymer meets the requirements of the specification, and the manufacturer's approval of its use to the RPR. The amount of polymer will be a minimum 3% of the weight of the asphalt binder in the seal coat surface treatment.

**623-2.3 Water.** Water used in mixing or curing shall be from potable water sources, free of harmful soluble salts, and at least 50°F (10°C). Other sources shall be tested in accordance with ASTM C1602 prior to use.

**623-2.4 Friction characteristics.** Not required.

## CONSTRUCTION METHODS

**623-4.1 Worker safety.** The Contractor shall obtain a Safety Data Sheet (SDS) for both the asphalt sealer product and aggregate and require workmen to follow the manufacturer's recommended safety precautions. All additional industry standard safety precautions regarding the storage and applications of asphalts should be understood and followed by the Contractor.

**623-4.2 Control strip.** Prior to full production the Contractor shall construct a control strip, a minimum of 250 square yards. The test area will be designated by the RPR in an area representative of the project. The control strip will determine the application rate to be used as well as to demonstrate the equipment and placement methods to be used. If the control strip should prove to be unsatisfactory, the necessary adjustments to the mix composition, application rate, placement operations and equipment shall be made. Additional control strips shall be placed and evaluated if required. Full production shall not begin without the RPR's approval of an appropriate application rate. Acceptable control strips shall be paid for in accordance with paragraph 623-8.1.

If operational conditions preclude placement of a control strip on the pavement to be sealed, it may be applied on a pavement with similar surface texture.

**623-4.3 Weather limitations.** The spray seal shall be applied only when the existing pavement surface is dry and when the weather is not foggy, rainy, or the humidity will not allow proper curing, or when the wind velocity will prevent the uniform application of the material. No material shall be applied when dust or sand is blowing or when rain is anticipated within eight (8) hours of application completion. The atmospheric temperature and the pavement surface temperature shall both be above 50°F (10°C) and rising and is expected to remain above 50°F (10°C) for 24 hours, unless otherwise directed by the RPR. Cover existing buildings, structures, runway edge lights, taxiway edge lights, informational signs, retro-reflective marking and in-pavement duct markers as necessary to protect against overspray before applying the emulsion. Should emulsion get on any light or marker fixture, promptly clean the fixture. If cleaning is not satisfactory to the RPR, the Contractor shall replace any light, sign or marker with equivalent equipment at no cost to the Owner.

**623-4.3 Equipment and tools.** The Contractor shall furnish all equipment, tools, and machinery necessary for the performance of the work. Equipment used to apply the seal coat shall have continuous agitation or mixing capabilities to maintain homogeneous consistency of the seal coat throughout the application process. Spray equipment shall be capable of mixing and spraying seal coat with aggregate added. Self-propelled squeegee equipment with mixing capability shall have at least two squeegee or brush devices (one behind the other) to ensure adequate distribution and penetration of seal coat surface treatment into pavement surface. Hand squeegees and brushes shall be acceptable in areas where practicality prohibits the use of mechanized equipment. A power broom or blower may be used for removing loose material from the surface to be treated.

**623-4.4 Preparation of asphalt pavement surfaces.** Clean pavement surface immediately prior to placing the seal coat so that it is free of dust, dirt, grease, vegetation, oil or any type of objectionable surface film. Remove oil or grease by scrubbing with a detergent, then wash thoroughly with clean water. Any additional surface preparation, such as crack repair, shall be in accordance with Item P-101, paragraph 101-3.6.

**a. New asphalt pavement surfaces.** Allow new asphalt pavement surfaces to cure so that there is no concentration of oils on the surface. A period of at least 30 days at 70°F (21°C) daytime temperatures shall elapse between the placement of a hot mixed asphalt concrete surface course and the application of the seal coat.

Perform a water-break-free test to confirm that the surface oils have degraded and dissipated. (Cast approximately one gallon (4 liters) of clean water out over the surface. The water should sheet out and wet the surface uniformly without crawling or showing oil rings.) If signs of crawling or oil rings are apparent on the pavement surface, additional time must be allowed for additional curing and retesting of the pavement surface prior to treatment.

#### **623-4.5 Emulsion mixing.**

Contractor must ensure the mixture is homogeneous with no balling or lumping. Continue to agitate the seal coat mixture in the mixing tank at all times prior to and during application so that a consistent mix is available for application. Small additional increments of water may be needed to provide a workable consistency, but in no case is the water content to exceed the specified amount.

**623-4.6 Application of seal coat.** Application of seal coat generally consists of two application coats of material. The first coat must be dry prior to the application of the second coat or subsequent coats if more than two coats are being applied. During all applications, the surfaces of adjacent structures shall be protected to prevent their being spattered or marred. Should the seal coat get on any light or marker fixture, promptly clean the fixture. If cleaning is not satisfactory to the RPR, the Contractor shall replace any light, sign or marker with equivalent equipment at no cost to the Owner.

Traffic shall not be allowed until the seal coat has thoroughly cured for approximately 24 hours.

If low spots and depressions greater than 1/2 inch (12 mm) in depth in the pavement surface cause ponding or puddling of the applied materials, the pavement surface shall be broomed with a broom drag. Brooming shall continue until the pavement surface is free of any pools of excess material. The RPR shall inspect and approve areas after brooming.

**623-4.7 Freight and weigh bills.** The Contractor shall submit waybills and delivery tickets during the progress of the work. Before the final estimate is allowed, file with the RPR certified waybills and certified delivery tickets for all seal coat used in the construction of the pavement covered by the contract. Do not remove seal coat from storage until the initial outage and temperature measurements have been taken. The delivery or storage units will not be released until the final outage has been taken.

### **QUALITY CONTROL (QC)**

**623-5.1 Contractor qualifications.** The Contractor shall furnish a certification demonstrating a minimum of three years of experience in the application of seal coats.

**623-5.2 Sampling.** A minimum of one sample per day shall be tested as specified in the table in paragraph 623-2.1. A random sample of approximately one-quarter of the composite mix from the onsite storage tank will be obtained daily by the Contractor in the presence of the owner's representative and stored in a proper container. The containers shall be sealed against contamination and retained in storage by the Owner for a period of six months. Samples shall be stored at room temperature and not be subjected to freezing temperatures.

A sample of undiluted asphalt emulsion shall be obtained from each consignment shipped to the job.

### **MATERIAL ACCEPTANCE**

**623-6.1 Application rate.** The rate of application of the asphalt emulsion shall be verified at least twice per day. The Contractor must furnish the RPR the results daily.

### METHOD OF MEASUREMENT

**623-7.1 Asphalt seal coat.** The quantity of seal coat shall be measured by the square yards of material applied in accordance with the plans and specifications and accepted by the RPR.

### BASIS OF PAYMENT

**623-8.1** Payment shall be made at the contract unit price per square yard for the seal coat applied and accepted by the RPR. This price shall be full compensation for all surface preparation, furnishing all materials, delivery and application of these materials, for all labor, equipment, tools, and incidentals necessary to complete the item control strip.

Payment will be made under:

Item P-623-8.1	Seal Coat – per square yard
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### REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

#### ASTM International (ASTM)

ASTM C1602	Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete
ASTM D93	Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester
ASTM D95	Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation
ASTM D2939	
ASTM D5340	Standard Test Method for Airport Pavement Condition Index Surveys

#### Advisory Circulars (AC)

AC 150/5380-7	Airport Pavement Management Program (PMP)
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#### Code of Federal Regulations (CFR)

29 CFR 1910.1200	Occupational Safety and Health Standards, Toxic and Hazardous Substances, Hazard Communication
40 CFR	Protection of Environment.

### END OF ITEM P-623



## Item L-126 Aircraft Tie-Downs

### DESCRIPTION

**126-1.1** This item shall consist of furnishing and installing aircraft tie-down anchors in asphalt or concrete pavement at the locations shown on the Contract Drawings and in accordance with this Specification.

### MATERIALS

**126-2.1 Tie-down anchors.** Tie-down anchors shall be of the size and type indicated on the Contract Drawings.

**126-2.2 Concrete.** Concrete shall conform to the requirements of Item P-610, Concrete for Miscellaneous Structures.

**126-2.3 Chains.** Chains for tie-down anchors shall be of the size and type indicated on the Contract Drawings.

**126-2.4 Shackles.** Shackles for tie-down anchors shall be of the size and type indicated on the Contract Drawings.

**126-2.4 Wire rope.** Wire rope for the parallel cable tie-down system shall be 6x19 Galvanized Wire Rope EIPS IWRC (Steel Core) 3/8" diameter as provided by US Cargo Control, or approved equal. Each rope end shall be fastened to a shackle using a Crosby G-411 galvanized standard wire rope thimble and two CrosbyG-450 Galvanized Wire Rope Clips as provided by US Cargo Control.

**126-2.5 Shackles.** Shackles for the parallel cable tie-down system shall be galvanized screw pin anchor shackles as provided by Campbell Chain and Fittings, or approved equal. Provide three 5/8 inch shackle with a working load limit of 3 tons (minimum), and three 5/16 inch shackle with a working load limit of 3/4 ton (minimum) for each aircraft parking position.

**126-2.6 Chains.** Chains for the parallel cable tie-down system shall be zinc plated or galvanized, 5/16" grade 43 high test chain, as provided by Campbell Chain and Fitting, or approved equal, and shall have a working load limit of at least 3,900 lbs. Provide one 8-foot length of chain for the tail tie-down location and two 12-foot lengths of chain for the wing tie-down locations for each aircraft parking position.

**126-2.7 S-hooks.** S-hooks for the parallel cable tie-down system shall be electrogalvanized low carbon steel 3 inches long with 7/8 inch inside diameter with a 1/2 inch opening as provided by MSC Industrial Direct Co., Inc., or approved equal and shall have a working load limit of at least 130 lbs. Provide three S-hooks for each aircraft parking position.

### CONSTRUCTION METHODS

**126-3.1 Tie-down Anchors.** Aircraft tie-downs anchors located within asphalt pavement shall be installed after paving operations are completed. Pavement shall be core drilled prior to removal and the tie-down anchors installed as indicated on the plans. Cables and hardware, when required, shall be installed on the anchors after concrete has cured seven days or more.

The tie-down anchors located in concrete pavement shall be installed during the paving operations unless otherwise approved by the RPR.

**126-3.2 Concrete.** Concrete handling and placement shall be in accordance with Item P-610, Concrete for Miscellaneous Structures.

**126-3.3 Tie-down anchor chains and fixtures.** Provide one chain with a finished length of 12 feet for each of the wing tie-down anchors and one chain with a finished length of 8 feet for each of the tail tie-down anchors. Payment for installation of tie-down chains, fixtures, and appurtenances shall be considered a subsidiary and incidental part of the completion of this item and as such, the Contractor shall include all costs associated with installation of tie-down chains and fixtures in the various pay items involved.

**126-3.4 Tie-down chains, shackles and S-hooks.** Attach one 12-foot long chain for each of the wing tie-down locations and one 8-foot long chain for each of the tail tie-down locations for the parallel cable tie-down system. Pre-assemble the tie-down chains by attaching an S-hook to one end of each of the chains, ensuring that one end of the S-hook is fully closed around the end link. Attach one 5/16 inch shackle to the opposite end of each chain. Attach the 5/16 inch shackle to each mooring eye using the 5/8 inch shackle. Payment for installation of tie-down chains, shackles and S-hooks shall be considered a subsidiary and incidental part of the completion of parallel cable tie-down system and as such, the Contractor shall include all costs associated with installation of tie-down chains, shackles and S-hooks in the various pay items involved.

#### **METHOD OF MEASUREMENT**

**126-4.1** The number of tie-down anchors shall be measured by the unit of each type installed complete, in place and accepted by the RPR.

**126-4.2** Wire rope for parallel cable tie-down system shall be measured by the linear foot, furnished, installed and accepted by the RPR.

**126-4.3** The number of individual tie-down setups for the parallel cable tie-down system shall be measured by the unit of each type installed complete, in place and accepted by the RPR. Each tie-down setup shall include two 12 foot long chains for each of the wing tie-down locations, one 8-foot chain for the tail tie-down location, three shackles, and three S-hooks.

#### **BASIS OF PAYMENT**

**126-5.1** Payment will be made at the contract unit price per each tie-down anchor installed in asphalt or concrete pavement and accepted by the RPR. These prices shall be full compensation for the furnishing all materials and for all installation of these materials and for all labor, equipment, tools and incidentals necessary to complete the item.

**126-5.2** Payment will be made at the contract unit price per linear foot for wire rope for parallel cable tie-down system. The 2 foot overlap as shown on the Contract Documents shall be considered incidental. This price shall be full compensation for the furnishing all materials and for all installation of these materials and for all labor, equipment, tools and incidentals necessary to complete the item.

**126-5.3** Payment will be made at the contract unit price per each tie-down setup installed in asphalt or concrete pavement and accepted by the RPR. This price shall be full compensation for the furnishing all materials and for all installation of these materials and for all labor, equipment, tools and incidentals necessary to complete the item.

Payment will be made under:

Item L-126-5.1	Aircraft Tie-Down – Per Each
Item L-126-5.2	Aircraft Tie-Down Cable – Per Linear Foot
Item L-126-5.3	Aircraft Tie-Down Setup– Per Each

**END OF ITEM L-126**

## GENERAL TECHNICAL SPECIAL PROVISIONS

### Item SP-01 Waterline Depth Hydrovac Potholing

**SP-01 Waterline Depth Hydrovac Potholing** The work under this item shall consist of furnishing the equipment, materials, and labor necessary for utility potholing to determine the depth of the existing waterline in accordance with the sections SP-01.1-SP-01.6.

**SP-01.1 Excavation** Excavation requires coring a circular hole through asphalt pavement using drilling/coring equipment and removal of the intact asphalt pavement core. The vertical alignment of the coring operation shall be perpendicular to the horizon and cutting shall be extended the full depth of the existing pavement section.

Pavement cores shall not be greater than 24 inches in diameter, shall not be spaced closer than 3 feet between cores (edge to edge), shall not contain a joint or any pavement cracks greater than 1/8-inch wide, and shall only be obtained from pavements where the asphalt concrete section is at least 4 inches thick.

Contractor shall place a temporary mark (paint or chalk) on the pavement core and adjacent pavement prior to cutting to insure that the pavement core when replaced will have the same orientation as found in the original pavement.

Pavement cores shall be either removed from the work site or stored in a safe and secure on-site location. The cores shall be made readily available for reinstatement into the pavement.

Soil shall be removed by air/vacuum extraction methods to expose utilities. The zone of soil removal shall remain essentially within a vertical plane extending below the edges of the core hole.

The Contractor shall dispose of all excess material.

### SP-01.2 Backfill and Compaction

**SP-01.2.1 Backfill Using Mechanical Compaction** Backfill shall be aggregate base per specification P-209 or native soil, placed in maximum 6 to 8-inch loose lifts.

Backfill compaction shall be determined by use of a compression wave amplitude monitoring device manufactured specifically for the purpose of measuring soil compaction. This device shall measure the compression wave amplitude as compaction progresses using below grade piezoelectric transducer wave sensors and an above-grade electronic monitor. The device shall signal the operator of successful compaction (the compaction wave amplitude becomes asymptotic for continued compaction effort) for each lift.

At time of compaction backfill moisture shall have sufficient available moisture to be compacted based on the physical appearance (soil ball) method as specified in USDA Soil Conservation Service Agricultural Information Bulletin 199, described as follows:

Firmly squeeze a palm-size sample of soil into a ball by hand. Granular soils with sufficient available moisture will tend to ball under pressure, but seldom holds together for long. Cohesive

soils with sufficient available moisture will form a ball that can be rolled into approximate ¼” wide ribbons between the palms of the hands without breaking apart, leaving no free water on hand.

A compaction sensor shall be placed at the bottom of the first loose lift. A new sensor shall be placed for every 48 inches of compacted fill depth.

Pneumatic compaction equipment (pneumatic rammers or equivalent) shall be used for compaction of the backfill material. The size of the compactor shall not exceed one-half the diameter of the hole.

Mechanical compaction on each lift shall be continued until the electronic monitor signals that compaction is complete. A new lift shall not be placed until a positive signal has been received. Remove backfill soil and sensor if the monitor does not give a positive compaction signal after repeated compaction efforts. Repeat backfilling and compaction with a new sensor.

Contractor shall provide compaction documentation to the Agency upon request.

**SP-01.2.2 Leveling Course** A 1-1/2-inch to 2-inch thick leveling course of compacted crushed gravel meeting the requirements of ASTM C33, No. 8 coarse aggregate shall be placed above the backfill and directly below the asphalt concrete pavement section.

**SP-01.3 Pavement Restoration** The pavement surface shall be restored to its original condition by setting the reinstated pavement core flush with and in its original orientation.

Bonding agent meeting the requirements of SP-01.3.1 shall be used for pavement core reinstatement. Excess bonding material shall be removed from the restored pavement surface. A "patched" appearance shall be avoided in surface restoration wherever possible.

The contractor shall reinstate the pavement core within 24 hours of cutting the pavement. Holes left open longer than 24 hours after cutting shall be covered with an approved steel road plate capable of supporting traffic loads. The steel plate must be rounded with a fitted collar that, when inserted into the hole, will prevent the steel plate from tipping, tilting, bouncing or spinning out of the hole under traffic conditions. An asphalt mix shall be used to ramp pavement up to the steel plate along all edges.

**SP-01.3.1 – Asphalt Pavement Core Bonding Materials** This section covers the materials required to bond asphalt pavement cores to the asphalt concrete pavement from which it was originally removed. Bonding material shall be a single component cementitious, rapid hardening, high strength, waterproof bonding agent conforming to the physical properties shown in Table 1 below.

<b>Table 1</b>		
<b>Bond Material Properties</b>		
<b>Property</b>	<b>ASTM Test Method</b>	<b>Requirements</b>
Bond Strength psi	C882	20 min.
Compressive Strength, psi, (70 degrees F., 30 minute cure)	C109	200 min.

Bonding material shall be impervious to water penetration at the joint after curing. Bonding material shall, within 30 minutes at minimum ambient temperature of 70 degrees F., allow an 18” diameter core to support a traffic load equivalent to at least three (3) times the AASHTO H-25

standard wheel load.

Specifications and test results for the bonding material shall be submitted to the Agency for review and approval before use.

**SP-01.4 Surface Tolerances** The reinstated core shall be flush and level with the adjacent pavement. Gaps attributable to the positioning of the core shall be less than 1/16-inch between the bottom of a minimum 3-foot long straightedge and the surface of the pavement in any direction on the surface of the keyhole core, except across the pavement crown or drainage gutters.

**SP-01.5 Deficiencies** Where the pavement core is found to be fractured or defective upon removal, or becomes damaged after removal and prior to reinstating, the defective or damaged core shall not be used to reinstate the pavement. Pavement repair shall be performed in accordance per SP-01.5.1 below.

**SP-01.5.1 Pavement Repair** Edges shall be cut to a neat vertical face. Place CLSM backfill approved by the Engineer. Place asphalt concrete per Specification P-401 in maximum 2-lifts. Repair all cracks or sawcut overcut per Specification P-101.

A pavement core is considered unacceptable when one of the following conditions exist:

- a) The core contains any vertical cracks wider than 1/8-inch extending full depth or partial depth through the core; or
- b) Any deteriorated piece of the core is larger than 10 percent of the overall area of the core.
- c) Two or more successive layers of asphalt concrete in the core become horizontally delaminated and cannot be rebounded to each other with the bonding compound.

All unacceptable pavement cores shall be removed from the job site.

**SP-01.6 Measurement** Measurement and payment for this item shall be made at the contract unit price, completed in accordance with the project plans and accepted by the Engineer. This price shall be full compensation for all labor, materials, and equipment necessary to complete this item.

Payment will be made under:

Waterline Depth Hydrovac Potholing (SP-01) – per lump sum

**Item SP-02 Remove Existing Fire Hydrant Assembly**

**SP-02 Remove Existing Fire Hydrant Assembly** The work under this item shall consist of removal and disposal of existing fire hydrant assemblies. In accordance with the County of Riverside County Road Standards & County Standard Specifications Section 18 Water Pipelines.

**SP-02.1 Measurement** Measurement and payment for this item shall be made at the contract unit price, installed in accordance with the project plans and accepted by the Engineer. This price shall be full compensation for all labor, materials, and equipment necessary to complete this item.

Payment will be made under:

Remove Existing Fire Hydrant Assembly (SP-02) – per each

**Item SP-03 Furnish and Install New Flush Mounted Fire Hydrant Assembly**

**SP-03 Furnish and Install New Flush Mount Fire Hydrant Assembly** The work under this item shall consist of furnishing and installing new flush mounted fire hydrant assemblies to include flush mount boxes and covers, tee or tap, connector pipe, auxiliary valves, adjustable valve boxes and covers and appurtenances needed to construct the fire hydrant assemblies in accordance with the County of Riverside County Road Standards & County Standard Specifications Section 18 Water Pipelines.

**SP-03.1 Measurement** Measurement and payment for this item shall be made at the contract unit price, installed in accordance with the project plans and accepted by the Engineer. This price shall be full compensation for all labor, materials, and equipment necessary to complete this item.

Payment will be made under:

Furnish and Install New Flush Mount Fire Hydrant Assembly (SP-03) – per each

**Item SP-04 Furnish and Install New Concrete Pad**

**SP-04 Furnish and Install New Concrete Pad** The work under this item shall consist of furnishing and constructing concrete pads at each of the new hydrant locations in accordance with Specification P-610 and P-209 (AB) and the plans.

**SP-04.1 Measurement** Measurement and payment for this item shall be made at the contract unit price, installed in accordance with the project plans and accepted by the Engineer. This price shall be full compensation for all labor, materials, and equipment necessary to complete this item.

Payment will be made under:

Furnish and Install New Concrete Pad (SP-04) – per each





CONTRACT DRAWINGS  
FOR THE CONSTRUCTION OF  
**FRENCH VALLEY AIRPORT**  
**APRON PAVEMENT**  
**REHABILITATION PROJECT**

COUNTY OF RIVERSIDE  
MURRIETA, CALIFORNIA



LOCATION MAP

SHEET INDEX		
SHEET NO.	SHEET DESIGNATION	SHEET NAME
1	GI001	COVER SHEET
2	GI002	GENERAL NOTES, ABBREVIATIONS AND LEGEND
3	GC100	GENERAL PLAN AND SURVEY CONTROL
4	GC101	CONSTRUCTION SAFETY PHASING PLAN
5	GC102	WORK AREA 1A PHASING AND BARRICADE PLAN - BASE BID
6	GC103	WORK AREA 1B PHASING AND BARRICADE PLAN - BASE BID
7	GC104	WORK AREA 1C PHASING AND BARRICADE PLAN - BASE BID
8	GC105	WORK AREA 2A PHASING AND BARRICADE PLAN - BID ALT #1
9	GC106	WORK AREA 2B PHASING AND BARRICADE PLAN - BID ALT #1
10	GC107	WORK AREA 2C PHASING AND BARRICADE PLAN - BID ALT #1
11	GC108	WORK AREA 2E PHASING AND BARRICADE PLAN - BID ALT #1
12	GC109	WORK AREA 2E PHASING AND BARRICADE PLAN - BID ALT #1
13	GC110	WORK AREA 3A PHASING AND BARRICADE PLAN - BID ALT #2
14	GC111	WORK AREA 3B PHASING AND BARRICADE PLAN - BID ALT #2
15	GC112	WORK AREA 4 PHASING AND BARRICADE PLAN - BID ALT #3
16	GC113	TEMPORARY TIE DOWN PLAN
17-18	GC120-GC121	SOIL EROSION AND SEDIMENT CONTROL PLAN
19-22	CD101-CD104	DEMOLITION PLAN
23-24	CG101-CG102	GRADING PLAN
25-29	CS101-CS105	IMPROVEMENT PLAN
30-31	CS501-CS502	TYPICAL SECTIONS AND DETAILS
32-35	CM101-CM104	MARKING PLAN
36-39	CM201-CM204	TIE DOWN PLAN
40	CM501	MARKING AND TIE DOWN DETAILS
41	RC100	BORING PLAN
42-43	RC101-RC102	BORING LOGS

FAA AIP PROJECT: 3-06-0338-034-2022 (DESIGN)

C&S PROJECT: K45.004.003

OCTOBER 2024



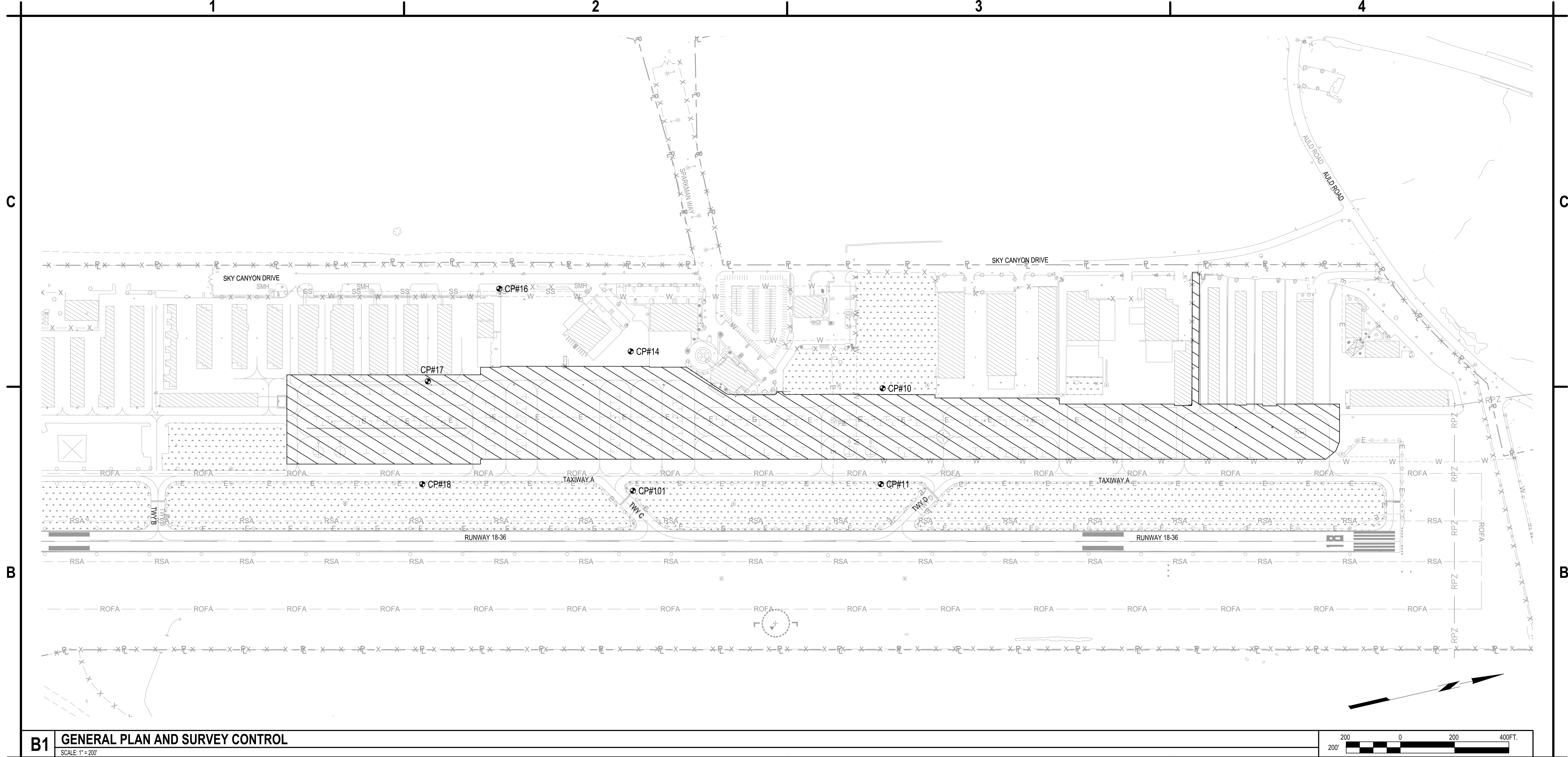
GI001







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**B1** GENERAL PLAN AND SURVEY CONTROL  
SCALE: 1"=200'



**BASIS OF BEARINGS**

THE BASIS OF BEARINGS FOR THIS SURVEY IS BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE 6 NAD 83 (EPOCH 2017.5) AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) "BILL" AND "P477" BEING N28°53'54"E.

**BENCH MARK**

NGS POINT DX1524  
BRASS DISC STAMPED Z 311 1935 SET IN CONCRETE NEAR THE INTERSECTION OF WINCHESTER ROAD AND BRIGGS ROAD AT THE JUNCTION OF TWO DIRT ROADS AND A FARM LANE. DISC IS 4.4' SOUTH OF WOODEN MAIL BOX.  
ELEVATION=1337.7' NAVD 88.

**French Valley Airport Survey Control**

PointNo.	Northing(Y)	Easting(X)	Elev(Z)	Description
10	2154869.42	6293788.59	1334.92	MON/ MAG SPIKE IN 2"IP
11	2154784.20	6294131.25	1338.10	MON/ MAG SPIKE IN 2"IP
14	2153994.55	6293448.55	1333.25	CP/ MAG NAIL WSHR GGI CONTROL
16	2153573.89	6293114.92	1330.69	MON/ MAG SPIKE IN 2"IP
17	2153240.75	6293388.84	1330.69	CP/ PK NAIL WSHR GGI CONTROL
18	2153136.25	6293753.61	1332.81	MON/ MAG SPIKE IN 2"IP
101	2153887.81	6293950.81	1334.54	MON/ 2" BRASS DISC IN CONCRETE
107*	2154995.59	6313563.62	1646.06	CORS POINT "BILL"
108*	2127664.30	6298482.23	1202.03	CORS POINT "P 477"
BM*	2159750.60	6294551.35	1337.7	NGS POINT DX1524

\*NOT SHOWN ON PLAN VIEW DUE TO OFF-SITE LOCATION

**A1** LEGEND  
SCALE: NOT TO SCALE

**A4** SURVEY CONTROL NOTES  
SCALE: NOT TO SCALE

**A4** CONTROL POINTS  
SCALE: NOT TO SCALE



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**FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION**

**MURRIETA, CALIFORNIA**

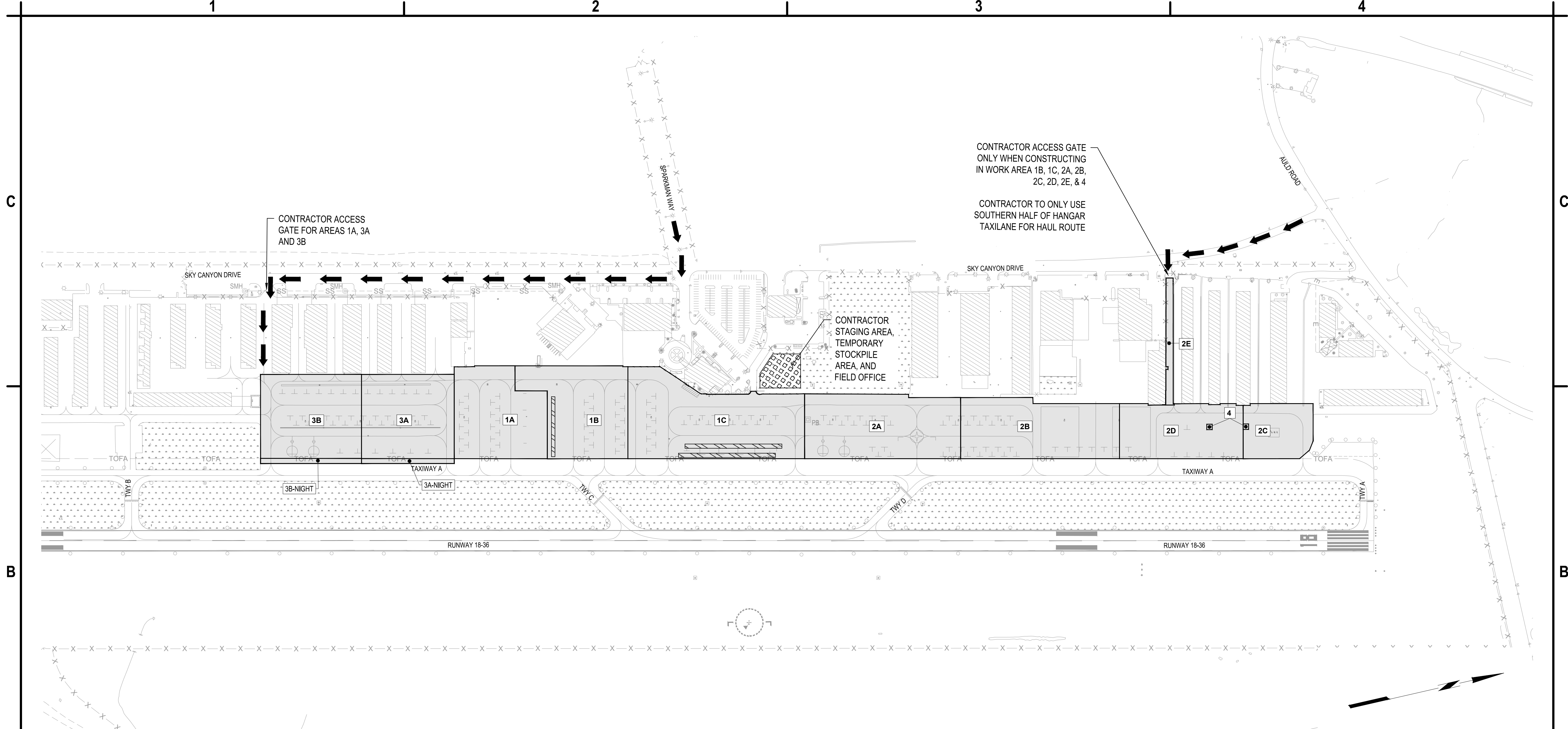
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DESIGNED BY: N. EASLEY		
CHECKED BY: C. CALATRELLO		
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**GENERAL PLAN AND  
SURVEY CONTROL**

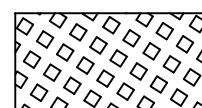


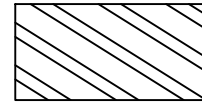

**GC100**



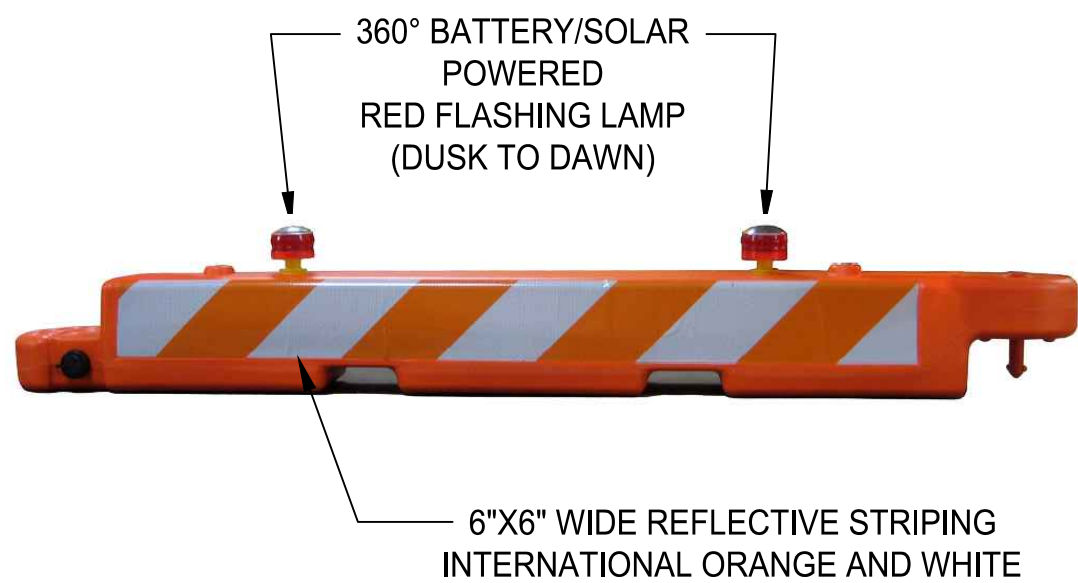
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**B1** CONSTRUCTION SAFETY PHASING PLAN  
SCALE: 1" = 200'

-  CONTRACTOR STAGING AREA AND TEMPORARY STOCKPILE AREA
-  CONTRACTOR ACCESS ROUTE
-  WORK AREA
-  TEMPORARY AIRCRAFT TIE DOWN AREA, SEE SHEET GC112
-  PROJECT PHASE BOUNDARY

**A1** LEGEND  
SCALE: NOT TO SCALE



- BARRICADE NOTES:**
1. BARRICADES SHALL BE SPACED 5' APART
  2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PROPER POSITIONING OF ALL BARRICADES.
  3. WATER-FILLED TYPE BARRICADES SHALL BE USED (SEE SPECIFICATIONS)
  4. BARRICADES SHALL HAVE TWO FLASHING LAMPS.

**A3** LOW PROFILE BARRICADE DETAIL  
SCALE: NOT TO SCALE

**A4** NOT USED  
SCALE: NOT TO SCALE



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**FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION**

**MURRIETA, CALIFORNIA**

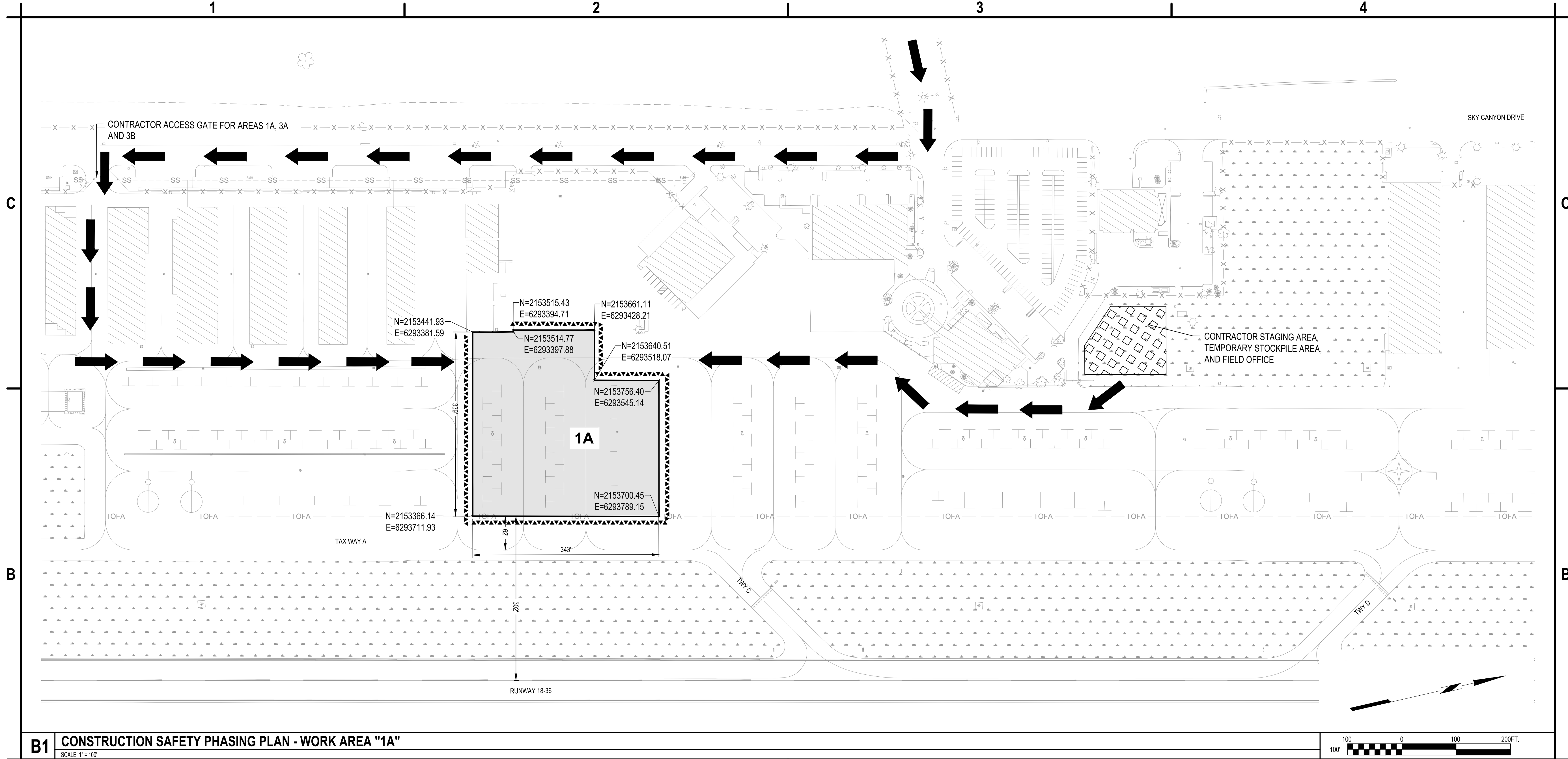
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**CONSTRUCTION  
SAFETY PHASING  
PLAN**

**GC101**



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**B1** CONSTRUCTION SAFETY PHASING PLAN - WORK AREA "1A"  
SCALE: 1" = 100'

WORK AREA 1A

CONTRACTOR STAGING AREA AND TEMPORARY STOCKPILE AREA

CONTRACTOR ACCESS ROUTE

XX

WORK AREA

LOW PROFILE BARRICADE, SEE DETAIL A3, SHEET GC101

1

2

3

4

1

2

3

4

A1

LEGEND

SCALE: NOT TO SCALE

1.

ALL PERSONAL VEHICLES SHALL BE PARKED IN THE PARKING LOT LOCATED OUTSIDE OF THE TERMINAL BUILDING.

2.

THE STAGING AREA IS NOT FENCED OR SECURED. FENCING & SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

3.

CONTRACTOR SHALL COMPLY WITH THE CONSTRUCTION SAFETY PLAN IN SECTION 70 OF THE CONTRACT DOCUMENTS.

4.

MAXIMUM EQUIPMENT HEIGHT = 25 FEET

5.

CONSTRUCTION VEHICLES MUST BE MARKED WITH AMBER BEACONS (DAY /NIGHT) OR ORANGE AND WHITE FLAGS DURING DAYLIGHT HOURS.

6.

CONTRACTOR SHALL ELIMINATE FOREIGN OBJECT DEBRIS PER THE CONSTRUCTION SAFETY PLAN.

7.

THE CONTRACTOR SHALL KEEP GATES CLOSED AND SECURE AT ALL TIMES.

8.

ALL ROADS USED TO ACCESS SITE SHALL BE MAINTAINED. AT THE COMPLETION OF ALL CONSTRUCTION ACTIVITY, ROADS SHALL BE OPENED AT SAME OR BETTER CONDITION (TYP.).

9.

TAXIING AIRCRAFT SHALL ALWAYS HAVE THE RIGHT OF WAY.

10.

AT NO TIME SHALL CONTRACTOR PERSONNEL OR EQUIPMENT ENTER A MOVEMENT AREA WITHOUT APPROVAL FROM THE AIRPORT.

11.

ALL CONSTRUCTION DEBRIS INCLUDING DIRT TRACKING OUTSIDE THE STAGING AREA(S) SHALL CLEANED UP IMMEDIATELY.

12.

CONTRACTOR WILL HAVE 28 CONSECUTIVE CALENDAR DAYS TO COMPLETE WORK IN THIS AREA.

A3

GENERAL NOTES

SCALE: NOT TO SCALE

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COMPANIES®

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CHARTERED PROFESSIONAL ENGINEER  
CHRISTOPHER A. CALATRELLO  
C 83925  
CIVIL  
STATE OF CALIFORNIA

RIVERSIDE COUNTY  
AVIATION

FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION

MURRIETA, CALIFORNIA

MARK

DATE

DESCRIPTION

REVISIONS

PROJECT NO:

K45.004.003

DATE:

OCTOBER 2024

DRAWN BY:

N. EASLEY

DESIGNED BY:

N. EASLEY

CHECKED BY:

C. CALATRELLO

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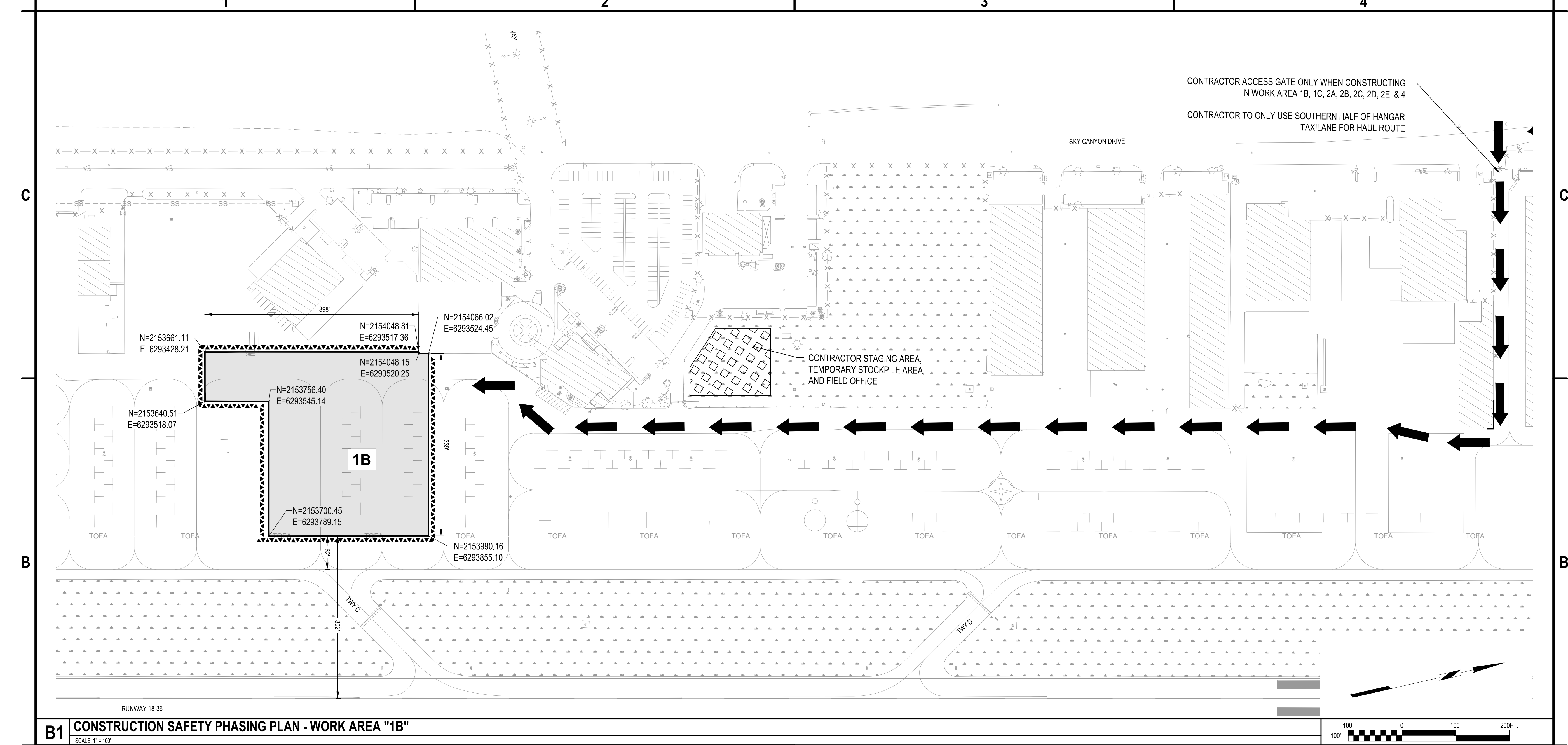
WORK AREA 1A  
PHASING AND  
BARRICADE PLAN -  
BASE BID

GC102

NOT FOR CONSTRUCTION

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**B1** CONSTRUCTION SAFETY PHASING PLAN - WORK AREA "1B"  
SCALE: 1" = 100'

- WORK AREA 1B**
- CONTRACTOR STAGING AREA AND TEMPORARY STOCKPILE AREA**
- CONTRACTOR ACCESS ROUTE**
- WORK AREA**
- LOW PROFILE BARRICADE, SEE DETAIL A3, SHEET GC101**

**A1** LEGEND  
SCALE: NOT TO SCALE

- ALL PERSONAL VEHICLES SHALL BE PARKED IN THE PARKING LOT LOCATED OUTSIDE OF THE TERMINAL BUILDING.
- THE STAGING AREA IS NOT FENCED OR SECURED. FENCING & SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL COMPLY WITH THE CONSTRUCTION SAFETY PLAN IN SECTION 70 OF THE CONTRACT DOCUMENTS.
- MAXIMUM EQUIPMENT HEIGHT = 25 FEET
- CONSTRUCTION VEHICLES MUST BE MARKED WITH AMBER BEACONS (DAY /NIGHT) OR ORANGE AND WHITE FLAGS DURING DAYLIGHT HOURS.
- CONTRACTOR SHALL ELIMINATE FOREIGN OBJECT DEBRIS PER THE CONSTRUCTION SAFETY PLAN.
- THE CONTRACTOR SHALL KEEP GATES CLOSED AND SECURE AT ALL TIMES.
- ALL ROADS USED TO ACCESS SITE SHALL BE MAINTAINED. AT THE COMPLETION OF ALL CONSTRUCTION ACTIVITY, ROADS SHALL BE OPENED AT SAME OR BETTER CONDITION (TYP.).
- TAXIING AIRCRAFT SHALL ALWAYS HAVE THE RIGHT OF WAY.
- AT NO TIME SHALL CONTRACTOR PERSONNEL OR EQUIPMENT ENTER A MOVEMENT AREA WITHOUT APPROVAL FROM THE AIRPORT.
- ALL CONSTRUCTION DEBRIS INCLUDING DIRT TRACKING OUTSIDE THE STAGING AREA(S) SHALL CLEANED UP IMMEDIATELY.
- CONTRACTOR WILL HAVE 28 CONSECUTIVE CALENDAR DAYS TO COMPLETE WORK IN THIS AREA.

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE



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**FRENCH VALLEY AIRPORT APRON  
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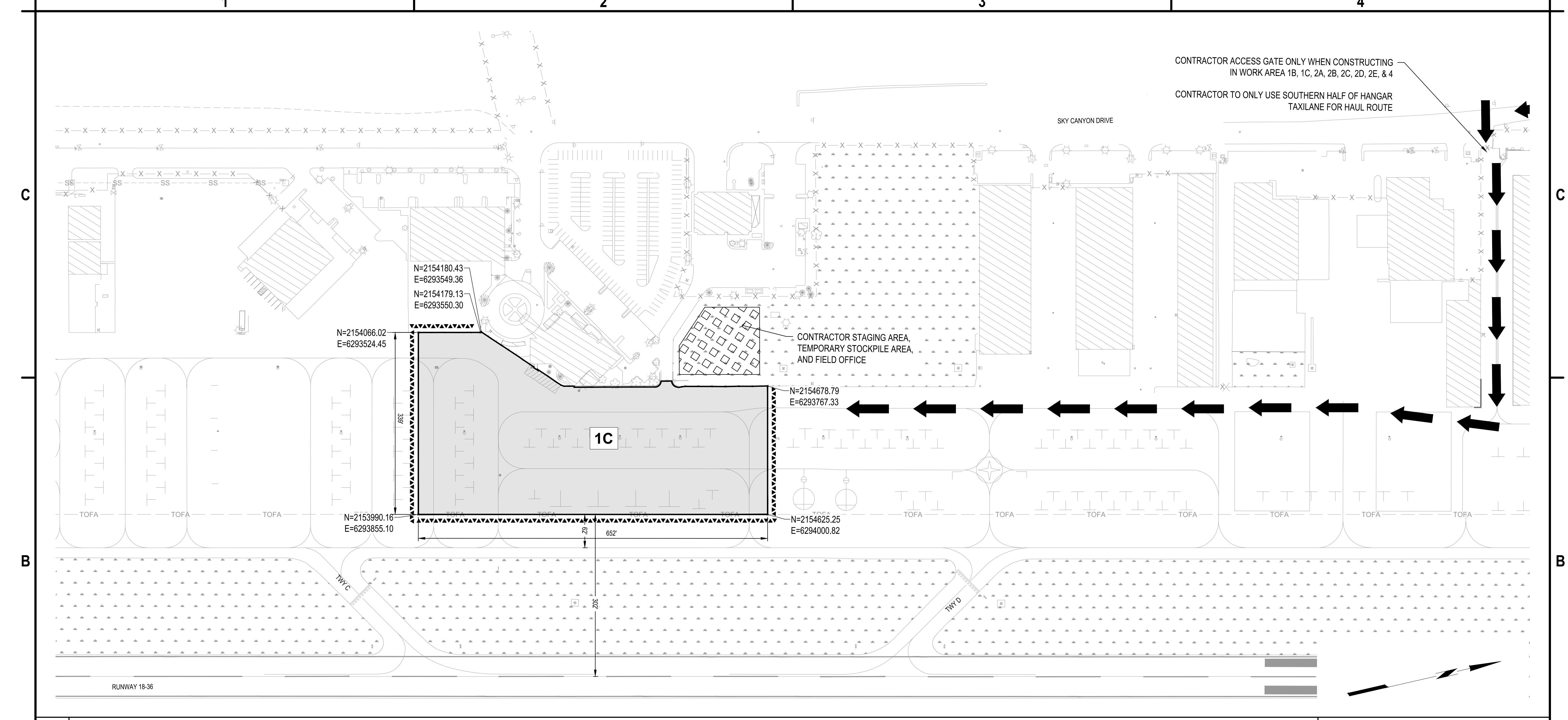
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**WORK AREA 1B  
PHASING AND  
BARRICADE PLAN -  
BASE BID**

**GC103**

**NOT FOR CONSTRUCTION**





**B1** CONSTRUCTION SAFETY PHASING PLAN - WORK AREA "1C"  
SCALE: 1" = 100'

- WORK AREA 1C
- CONTRACTOR STAGING AREA AND TEMPORARY STOCKPILE AREA
- CONTRACTOR ACCESS ROUTE
- WORK AREA
- LOW PROFILE BARRICADE, SEE DETAIL A3, SHEET GC101

1. ALL PERSONAL VEHICLES SHALL BE PARKED IN THE PARKING LOT LOCATED OUTSIDE OF THE TERMINAL BUILDING.
2. THE STAGING AREA IS NOT FENCED OR SECURED. FENCING & SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. CONTRACTOR SHALL COMPLY WITH THE CONSTRUCTION SAFETY PLAN IN SECTION 70 OF THE CONTRACT DOCUMENTS.
4. MAXIMUM EQUIPMENT HEIGHT = 25 FEET
5. CONSTRUCTION VEHICLES MUST BE MARKED WITH AMBER BEACONS (DAY /NIGHT) OR ORANGE AND WHITE FLAGS DURING DAYLIGHT HOURS.
6. CONTRACTOR SHALL ELIMINATE FOREIGN OBJECT DEBRIS PER THE CONSTRUCTION SAFETY PLAN.
7. THE CONTRACTOR SHALL KEEP GATES CLOSED AND SECURE AT ALL TIMES.
8. ALL ROADS USED TO ACCESS SITE SHALL BE MAINTAINED. AT THE COMPLETION OF ALL CONSTRUCTION ACTIVITY, ROADS SHALL BE OPENED AT SAME OR BETTER CONDITION (TYP.).
9. TAXIING AIRCRAFT SHALL ALWAYS HAVE THE RIGHT OF WAY.
10. AT NO TIME SHALL CONTRACTOR PERSONNEL OR EQUIPMENT ENTER A MOVEMENT AREA WITHOUT APPROVAL FROM THE AIRPORT.
11. ALL CONSTRUCTION DEBRIS INCLUDING DIRT TRACKING OUTSIDE THE STAGING AREA(S) SHALL CLEANED UP IMMEDIATELY.
12. CONTRACTOR WILL HAVE 35 CONSECUTIVE CALENDAR DAYS TO COMPLETE WORK IN THIS AREA.

**A1** LEGEND  
SCALE: NOT TO SCALE

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE



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FRENCH VALLEY AIRPORT APRON  
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MURRIETA, CALIFORNIA

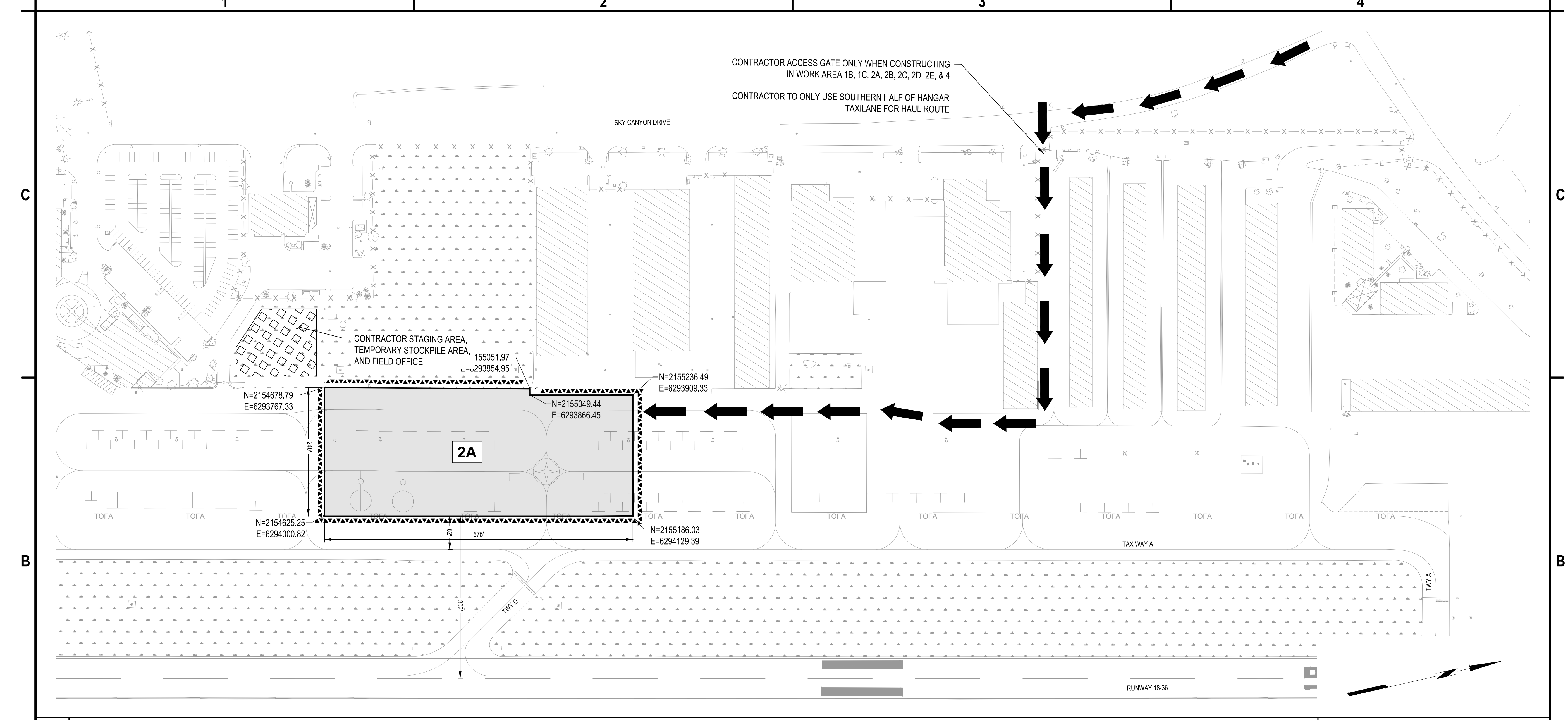
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WORK AREA 1C  
PHASING AND  
BARRICADE PLAN -  
BASE BID

GC104

NOT FOR CONSTRUCTION





**B1** CONSTRUCTION SAFETY PHASING PLAN - WORK AREA "2A"  
SCALE: 1" = 100'

- WORK AREA 2A
- CONTRACTOR STAGING AREA AND TEMPORARY STOCKPILE AREA
- CONTRACTOR ACCESS ROUTE
- WORK AREA
- LOW PROFILE BARRICADE, SEE DETAIL A3, SHEET GC101

**A1** LEGEND  
SCALE: NOT TO SCALE

- ALL PERSONAL VEHICLES SHALL BE PARKED IN THE PARKING LOT LOCATED OUTSIDE OF THE TERMINAL BUILDING.
- THE STAGING AREA IS NOT FENCED OR SECURED. FENCING & SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL COMPLY WITH THE CONSTRUCTION SAFETY PLAN IN SECTION 70 OF THE CONTRACT DOCUMENTS.
- MAXIMUM EQUIPMENT HEIGHT = 25 FEET
- CONSTRUCTION VEHICLES MUST BE MARKED WITH AMBER BEACONS (DAY /NIGHT) OR ORANGE AND WHITE FLAGS DURING DAYLIGHT HOURS.
- CONTRACTOR SHALL ELIMINATE FOREIGN OBJECT DEBRIS PER THE CONSTRUCTION SAFETY PLAN.
- THE CONTRACTOR SHALL KEEP GATES CLOSED AND SECURE AT ALL TIMES.
- ALL ROADS USED TO ACCESS SITE SHALL BE MAINTAINED. AT THE COMPLETION OF ALL CONSTRUCTION ACTIVITY, ROADS SHALL BE OPENED AT SAME OR BETTER CONDITION (TYP.).
- TAXIING AIRCRAFT SHALL ALWAYS HAVE THE RIGHT OF WAY.
- AT NO TIME SHALL CONTRACTOR PERSONNEL OR EQUIPMENT ENTER A MOVEMENT AREA WITHOUT APPROVAL FROM THE AIRPORT.
- ALL CONSTRUCTION DEBRIS INCLUDING DIRT TRACKING OUTSIDE THE STAGING AREA(S) SHALL CLEANED UP IMMEDIATELY.
- CONTRACTOR WILL HAVE 10 CONSECUTIVE CALENDAR DAYS TO COMPLETE WORK IN THIS AREA.

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE

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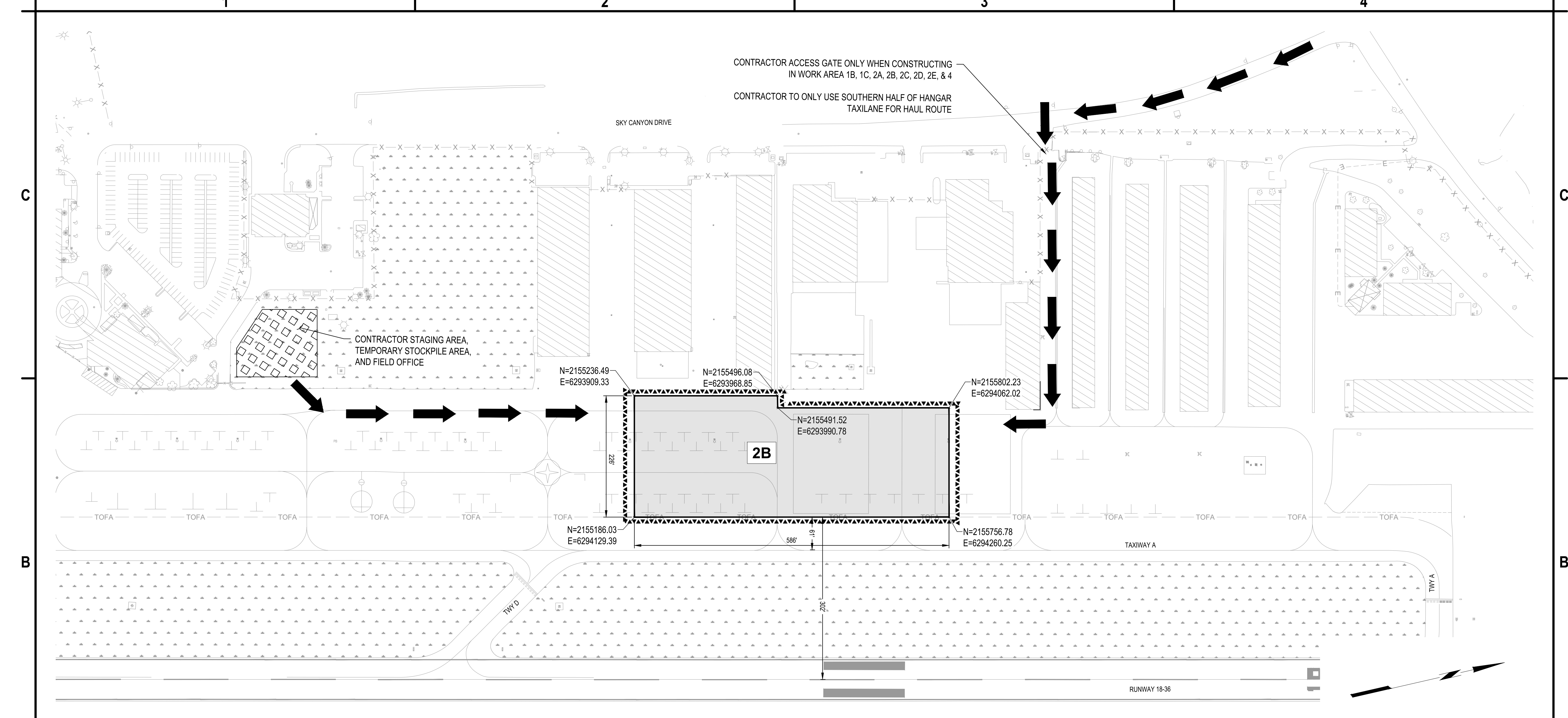
WORK AREA 2A  
PHASING AND  
BARRICADE PLAN -  
BID ALT #1

GC105

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NOT FOR CONSTRUCTION





**B1** CONSTRUCTION SAFETY PHASING PLAN - WORK AREA "2B"  
SCALE: 1" = 100'



- LEGEND**
- WORK AREA 2B
  - CONTRACTOR STAGING AREA AND TEMPORARY STOCKPILE AREA
  - CONTRACTOR ACCESS ROUTE
  - WORK AREA
  - LOW PROFILE BARRICADE, SEE DETAIL A3, SHEET GC101

- GENERAL NOTES**
- ALL PERSONAL VEHICLES SHALL BE PARKED IN THE PARKING LOT LOCATED OUTSIDE OF THE TERMINAL BUILDING.
  - THE STAGING AREA IS NOT FENCED OR SECURED. FENCING & SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
  - CONTRACTOR SHALL COMPLY WITH THE CONSTRUCTION SAFETY PLAN IN SECTION 70 OF THE CONTRACT DOCUMENTS.
  - MAXIMUM EQUIPMENT HEIGHT = 25 FEET
  - CONSTRUCTION VEHICLES MUST BE MARKED WITH AMBER BEACONS (DAY /NIGHT) OR ORANGE AND WHITE FLAGS DURING DAYLIGHT HOURS.
  - CONTRACTOR SHALL ELIMINATE FOREIGN OBJECT DEBRIS PER THE CONSTRUCTION SAFETY PLAN.
  - THE CONTRACTOR SHALL KEEP GATES CLOSED AND SECURE AT ALL TIMES.
  - ALL ROADS USED TO ACCESS SITE SHALL BE MAINTAINED. AT THE COMPLETION OF ALL CONSTRUCTION ACTIVITY, ROADS SHALL BE OPENED AT SAME OR BETTER CONDITION (TYP.).
  - TAXIING AIRCRAFT SHALL ALWAYS HAVE THE RIGHT OF WAY.
  - AT NO TIME SHALL CONTRACTOR PERSONNEL OR EQUIPMENT ENTER A MOVEMENT AREA WITHOUT APPROVAL FROM THE AIRPORT.
  - ALL CONSTRUCTION DEBRIS INCLUDING DIRT TRACKING OUTSIDE THE STAGING AREA(S) SHALL CLEANED UP IMMEDIATELY.
  - HANGAR TENANTS THAT NEED ACCESS DURING CONSTRUCTION WILL NEED TO RELOCATE TO TIE-DOWN PARKING AREAS.
  - CONTRACTOR WILL HAVE 10 CONSECUTIVE CALENDAR DAYS TO COMPLETE WORK IN THIS AREA.



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Fax: 619-296-0344  
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**FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION**

**MURRIETA, CALIFORNIA**

MARK	DATE	DESCRIPTION
REVISIONS		
PROJECT NO: K45.004.003		
DATE: OCTOBER 2024		
DRAWN BY: N. EASLEY		
DESIGNED BY: N. EASLEY		
CHECKED BY: C. CALATRELLO		
CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.		

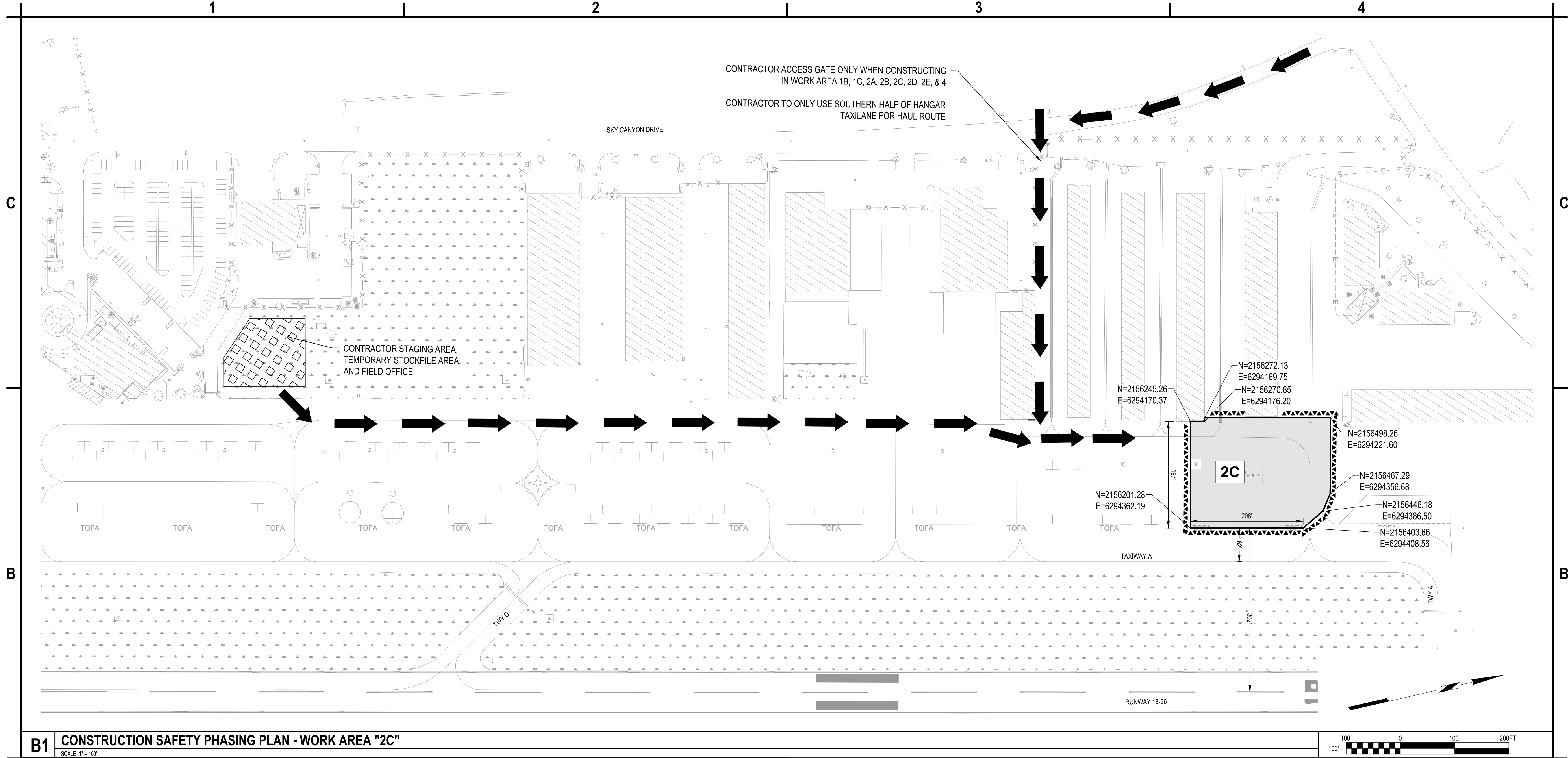
**WORK AREA 2B  
PHASING AND  
BARRICADE PLAN -  
BID ALT #1**

**GC106**

**NOT FOR CONSTRUCTION**



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**B1** CONSTRUCTION SAFETY PHASING PLAN - WORK AREA "2C"  
SCALE: 1" = 100'

WORK AREA 2C

CONTRACTOR STAGING AREA AND TEMPORARY STOCKPILE AREA

CONTRACTOR ACCESS ROUTE

XX

WORK AREA

LOW PROFILE BARRICADE, SEE DETAIL A3, SHEET GC101

A1

LEGEND

SCALE: NOT TO SCALE

A3

GENERAL NOTES

SCALE: NOT TO SCALE

1.

ALL PERSONAL VEHICLES SHALL BE PARKED IN THE PARKING LOT LOCATED OUTSIDE OF THE TERMINAL BUILDING.

2.

THE STAGING AREA IS NOT FENCED OR SECURED. FENCING & SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

3.

CONTRACTOR SHALL COMPLY WITH THE CONSTRUCTION SAFETY PLAN IN SECTION 70 OF THE CONTRACT DOCUMENTS.

4.

MAXIMUM EQUIPMENT HEIGHT = 25 FEET

5.

CONSTRUCTION VEHICLES MUST BE MARKED WITH AMBER BEACONS (DAY /NIGHT) OR ORANGE AND WHITE FLAGS DURING DAYLIGHT HOURS.

6.

CONTRACTOR SHALL ELIMINATE FOREIGN OBJECT DEBRIS PER THE CONSTRUCTION SAFETY PLAN.

7.

THE CONTRACTOR SHALL KEEP GATES CLOSED AND SECURE AT ALL TIMES.

8.

ALL ROADS USED TO ACCESS SITE SHALL BE MAINTAINED. AT THE COMPLETION OF ALL CONSTRUCTION ACTIVITY, ROADS SHALL BE OPENED AT SAME OR BETTER CONDITION (TYP.).

9.

TAXIING AIRCRAFT SHALL ALWAYS HAVE THE RIGHT OF WAY.

10.

AT NO TIME SHALL CONTRACTOR PERSONNEL OR EQUIPMENT ENTER A MOVEMENT AREA WITHOUT APPROVAL FROM THE AIRPORT.

11.

ALL CONSTRUCTION DEBRIS INCLUDING DIRT TRACKING OUTSIDE THE STAGING AREA(S) SHALL CLEANED UP IMMEDIATELY.

12.

HANGAR TENANTS THAT NEED ACCESS DURING CONSTRUCTION WILL NEED TO RELOCATE TO TIE-DOWN PARKING AREAS.

13.

CONTRACTOR WILL HAVE 10 CONSECUTIVE CALENDAR DAYS TO COMPLETE WORK IN THIS AREA.

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STATE OF CALIFORNIA

C 83925

RIVERSIDE COUNTY  
AVIATION

FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION

MURRIETA, CALIFORNIA

WORK AREA 2C  
PHASING AND  
BARRICADE PLAN -  
BID ALT #1

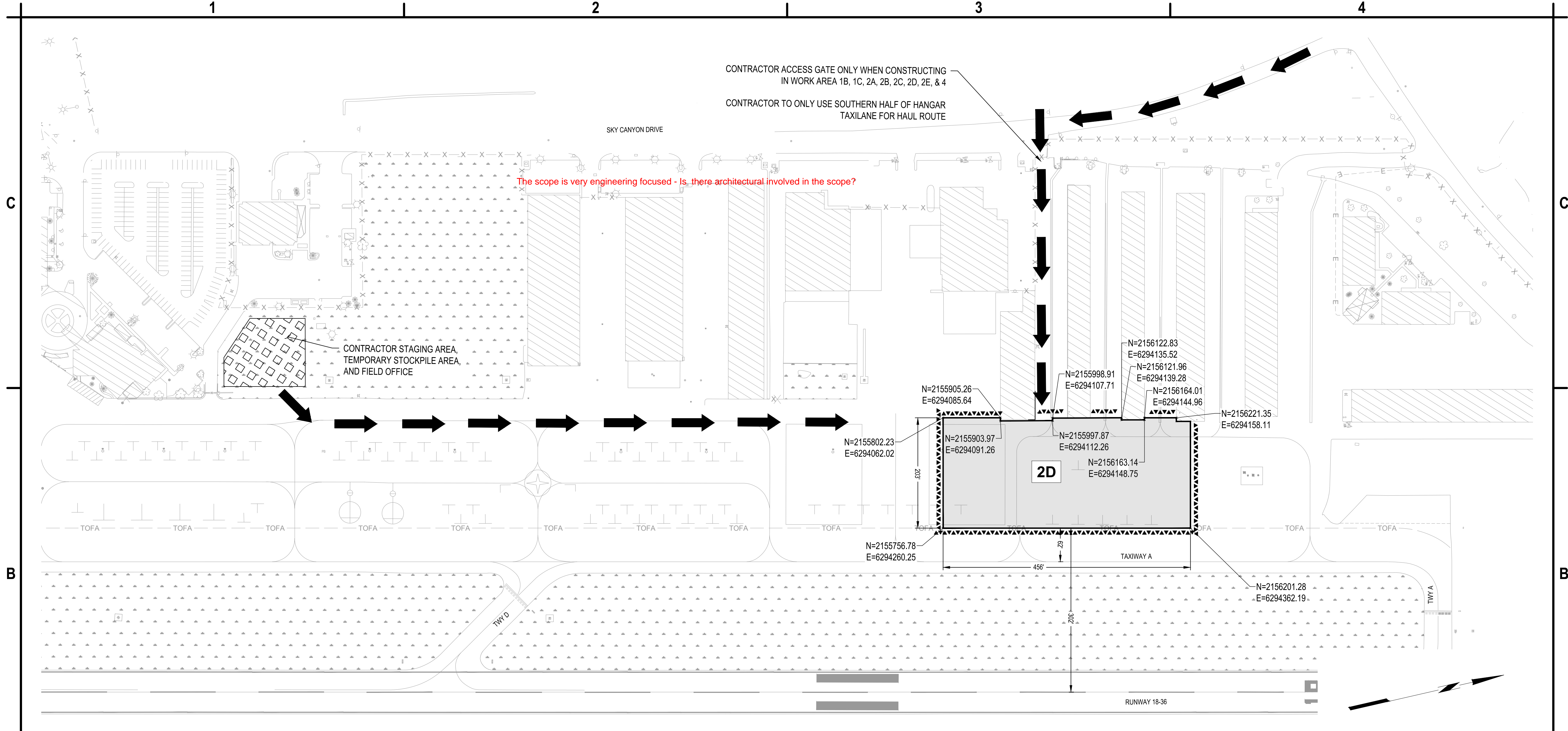
GC107

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**B1** CONSTRUCTION SAFETY PHASING PLAN - WORK AREA "2D"  
SCALE: 1" = 100'

-  WORK AREA 2D
-  CONTRACTOR STAGING AREA AND TEMPORARY STOCKPILE AREA
-  CONTRACTOR ACCESS ROUTE
-  WORK AREA
-  LOW PROFILE BARRICADE, SEE DETAIL A3, SHEET GC101

**A1** LEGEND  
SCALE: NOT TO SCALE

- ALL PERSONAL VEHICLES SHALL BE PARKED IN THE PARKING LOT LOCATED OUTSIDE OF THE TERMINAL BUILDING.
- THE STAGING AREA IS NOT FENCED OR SECURED. FENCING & SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
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- THE CONTRACTOR SHALL KEEP GATES CLOSED AND SECURE AT ALL TIMES.
- ALL ROADS USED TO ACCESS SITE SHALL BE MAINTAINED. AT THE COMPLETION OF ALL CONSTRUCTION ACTIVITY, ROADS SHALL BE OPENED AT SAME OR BETTER CONDITION (TYP.).
- TAXIING AIRCRAFT SHALL ALWAYS HAVE THE RIGHT OF WAY.
- AT NO TIME SHALL CONTRACTOR PERSONNEL OR EQUIPMENT ENTER A MOVEMENT AREA WITHOUT APPROVAL FROM THE AIRPORT.
- ALL CONSTRUCTION DEBRIS INCLUDING DIRT TRACKING OUTSIDE THE STAGING AREA(S) SHALL CLEANED UP IMMEDIATELY.
- HANGAR TENANTS THAT NEED ACCESS DURING CONSTRUCTION WILL NEED TO RELOCATE TO TIE-DOWN PARKING AREAS.
- CONTRACTOR WILL HAVE 10 CONSECUTIVE CALENDAR DAYS TO COMPLETE WORK IN THIS AREA.

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE



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FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION

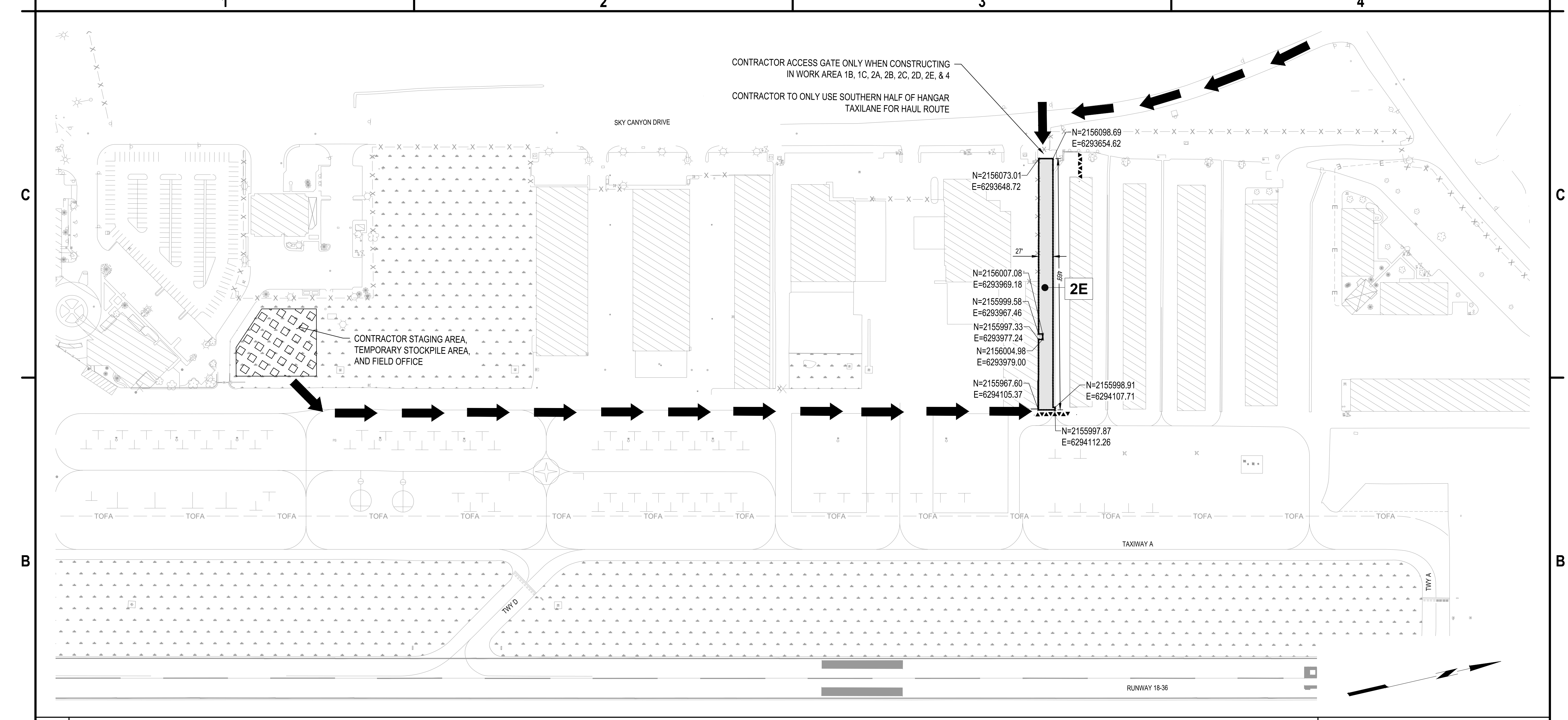
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WORK AREA 2D  
PHASING AND  
BARRICADE PLAN -  
BID ALT #1

GC108





**B1** CONSTRUCTION SAFETY PHASING PLAN - WORK AREA "2D"

SCALE: 1" = 100'

- WORK AREA 2D
- CONTRACTOR STAGING AREA AND TEMPORARY STOCKPILE AREA
- CONTRACTOR ACCESS ROUTE
- WORK AREA
- LOW PROFILE BARRICADE, SEE DETAIL A3, SHEET GC101

- ALL PERSONAL VEHICLES SHALL BE PARKED IN THE PARKING LOT LOCATED OUTSIDE OF THE TERMINAL BUILDING.
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- ALL CONSTRUCTION DEBRIS INCLUDING DIRT TRACKING OUTSIDE THE STAGING AREA(S) SHALL CLEANED UP IMMEDIATELY.
- HANGAR TENANTS THAT NEED ACCESS DURING CONSTRUCTION WILL NEED TO RELOCATE TO TIE-DOWN PARKING AREAS.
- CONTRACTOR WILL HAVE 5 CONSECUTIVE CALENDAR DAYS TO COMPLETE WORK IN THIS AREA.

**A1** LEGEND

SCALE: NOT TO SCALE

**A3** GENERAL NOTES

SCALE: NOT TO SCALE

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PAVEMENT REHABILITATION

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WORK AREA 2E  
PHASING AND  
BARRICADE PLAN -  
BID ALT #1

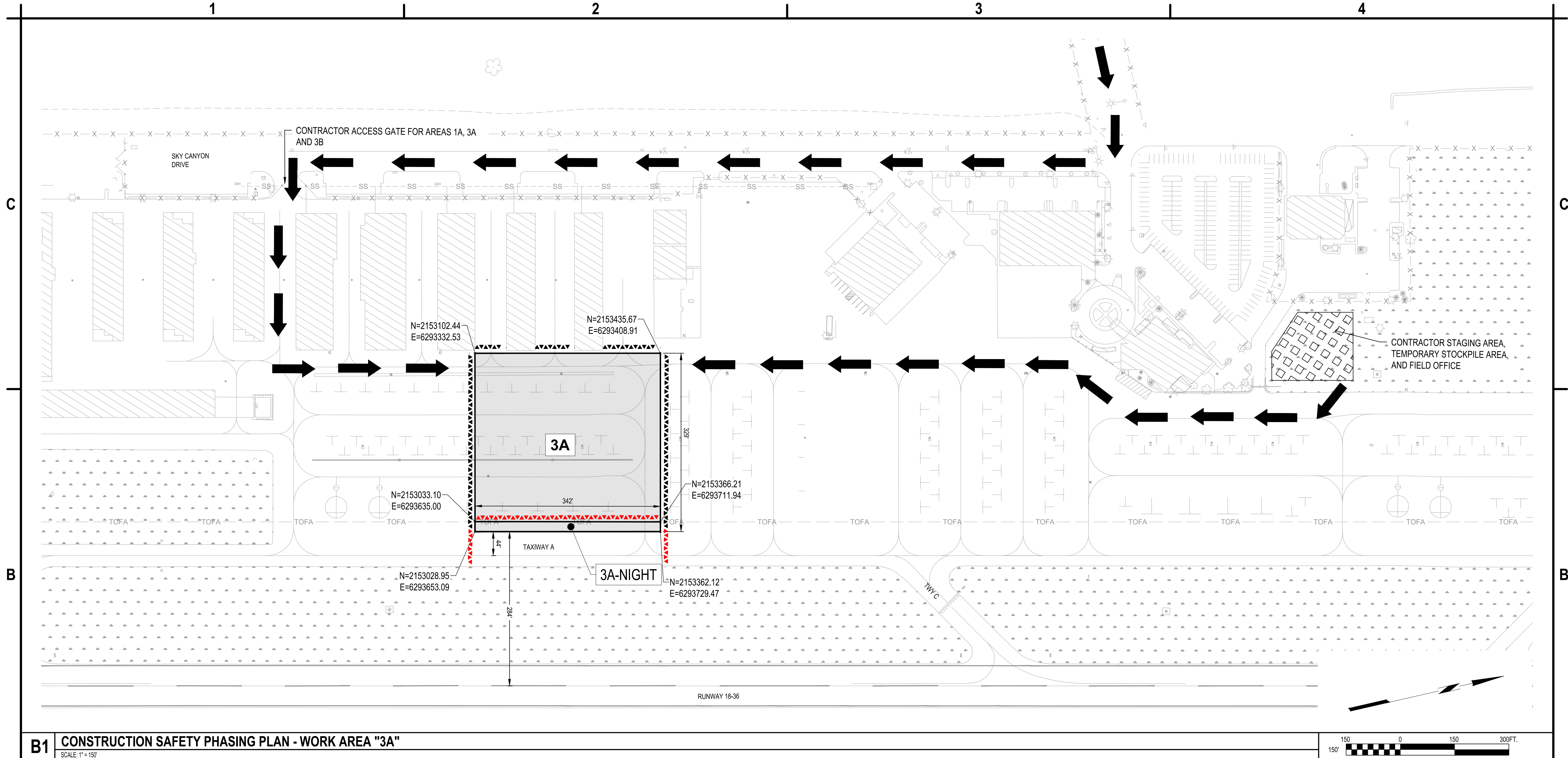
GC109

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**B1** CONSTRUCTION SAFETY PHASING PLAN - WORK AREA "3A"  
SCALE: 1" = 150'

- A**
- WORK AREA 3A/3A-NIGHT
  - CONTRACTOR ACCESS ROUTE
  - WORK AREA
  - LOW PROFILE BARRICADE, SEE DETAIL A3, SHEET GC101
  - NIGHT WORK LOW PROFILE BARRICADE, SEE DETAIL A3, SHEET GC101

**A1** LEGEND  
SCALE: NOT TO SCALE

- A3**
- ALL PERSONAL VEHICLES SHALL BE PARKED IN THE PARKING LOT LOCATED OUTSIDE OF THE TERMINAL BUILDING.
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  - CONTRACTOR SHALL COMPLY WITH THE CONSTRUCTION SAFETY PLAN IN SECTION 70 OF THE CONTRACT DOCUMENTS.
  - MAXIMUM EQUIPMENT HEIGHT = 25 FEET
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  - CONTRACTOR SHALL ELIMINATE FOREIGN OBJECT DEBRIS PER THE CONSTRUCTION SAFETY PLAN.
  - THE CONTRACTOR SHALL KEEP GATES CLOSED AND SECURE AT ALL TIMES.
  - ALL ROADS USED TO ACCESS SITE SHALL BE MAINTAINED. AT THE COMPLETION OF ALL CONSTRUCTION ACTIVITY, ROADS SHALL BE OPENED AT SAME OR BETTER CONDITION (TYP.).
  - TAXIING AIRCRAFT SHALL ALWAYS HAVE THE RIGHT OF WAY.
  - AT NO TIME SHALL CONTRACTOR PERSONNEL OR EQUIPMENT ENTER A MOVEMENT AREA WITHOUT APPROVAL FROM THE AIRPORT.
  - ALL CONSTRUCTION DEBRIS INCLUDING DIRT TRACKING OUTSIDE THE STAGING AREA(S) SHALL CLEANED UP IMMEDIATELY.
  - HANGAR TENANTS THAT NEED ACCESS DURING CONSTRUCTION WILL NEED TO RELOCATE TO TIE-DOWN PARKING AREAS.
  - THE SOUTHERN PORTION OF TAXIWAY A WILL BE CLOSED WHEN CONSTRUCTING IN WORK AREA 3A-NIGHT.
  - CONTRACTOR TO ENSURE SOUTHERN PORTION OF TAXIWAY A EDGE LIGHTS ARE DISCONNECTED, TURNED OFF, OR COVERED.
  - CONTRACTOR WILL HAVE 4 CONSECUTIVE CALENDAR DAYS TO COMPLETE WORK IN AREA 3A.
  - CONTRACTOR WILL HAVE 1 CALENDAR NIGHT TO COMPLETE WORK IN AREA 3A-NIGHT. WORK IN AREA 3A-NIGHT SHALL BE NIGHT WORK, ALL WORK SHALL BE COMPLETED DURING THE HOURS OF 6PM AND 6AM.

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE



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FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION

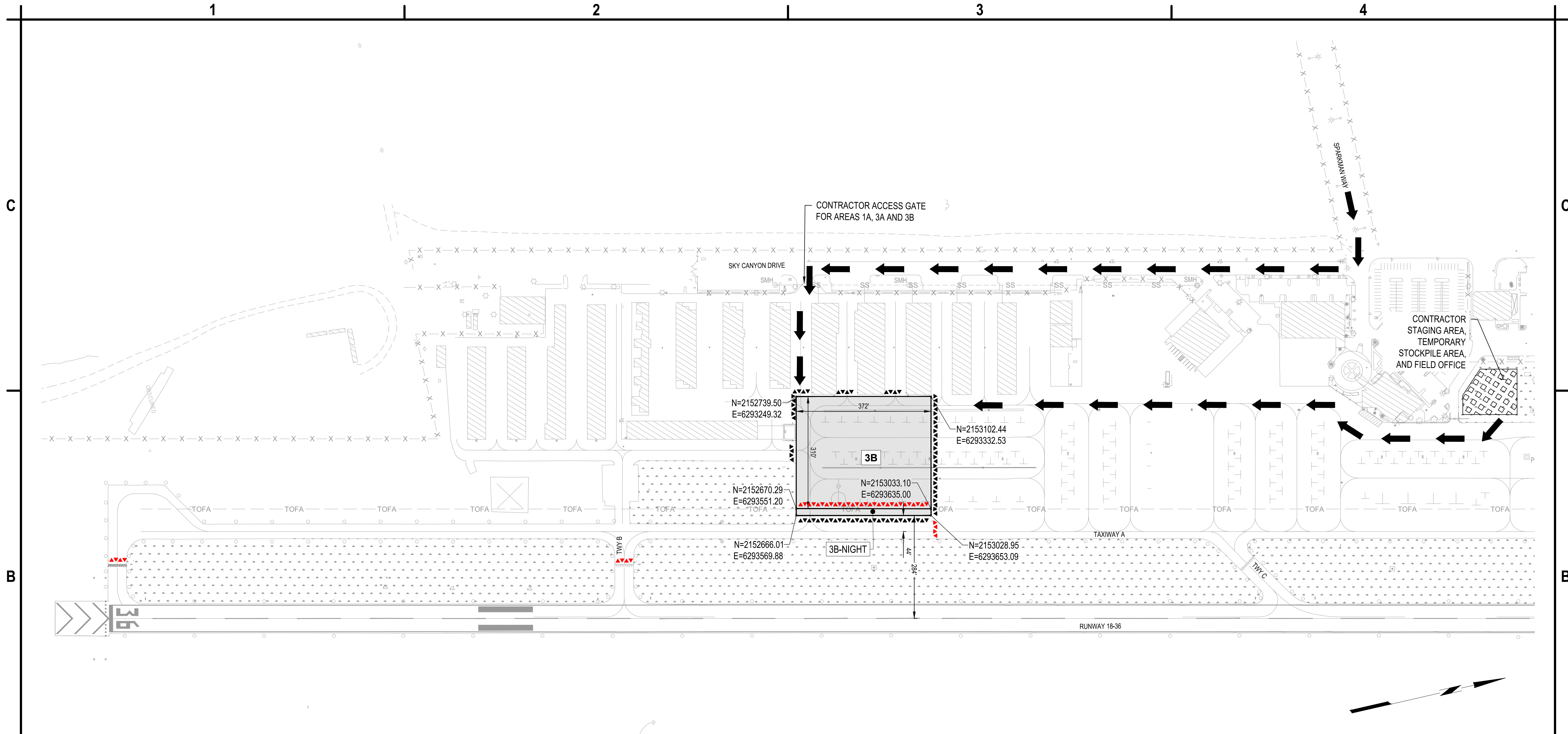
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WORK AREA 3A  
PHASING AND  
BARRICADE PLAN -  
BID ALT #2

GC110





**B1** CONSTRUCTION SAFETY PHASING PLAN - WORK AREA "3B"  
SCALE: 1" = 150'

- WORK AREA 3B/3B-NIGHT
- CONTRACTOR ACCESS ROUTE
- WORK AREA
- LOW PROFILE BARRICADE, SEE DETAIL A3, SHEET GC101
- NIGHT WORK LOW PROFILE BARRICADE, SEE DETAIL A3, SHEET GC101

- ALL PERSONAL VEHICLES SHALL BE PARKED IN THE PARKING LOT LOCATED OUTSIDE OF THE TERMINAL BUILDING.
- THE STAGING AREA IS NOT FENCED OR SECURED. FENCING & SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL COMPLY WITH THE CONSTRUCTION SAFETY PLAN IN SECTION 70 OF THE CONTRACT DOCUMENTS.
- MAXIMUM EQUIPMENT HEIGHT = 25 FEET
- CONSTRUCTION VEHICLES MUST BE MARKED WITH AMBER BEACONS (DAY /NIGHT) OR ORANGE AND WHITE FLAGS DURING DAYLIGHT HOURS.
- CONTRACTOR SHALL ELIMINATE FOREIGN OBJECT DEBRIS PER THE CONSTRUCTION SAFETY PLAN.
- THE CONTRACTOR SHALL KEEP GATES CLOSED AND SECURE AT ALL TIMES.
- ALL ROADS USED TO ACCESS SITE SHALL BE MAINTAINED. AT THE COMPLETION OF ALL CONSTRUCTION ACTIVITY, ROADS SHALL BE OPENED AT SAME OR BETTER CONDITION (TYP.).
- TAXIING AIRCRAFT SHALL ALWAYS HAVE THE RIGHT OF WAY.
- AT NO TIME SHALL CONTRACTOR PERSONNEL OR EQUIPMENT ENTER A MOVEMENT AREA WITHOUT APPROVAL FROM THE AIRPORT.
- ALL CONSTRUCTION DEBRIS INCLUDING DIRT TRACKING OUTSIDE THE STAGING AREA(S) SHALL CLEANED UP IMMEDIATELY.
- HANGAR TENANTS THAT NEED ACCESS DURING CONSTRUCTION WILL NEED TO RELOCATE TO TIE-DOWN PARKING AREAS.
- THE SOUTHERN PORTION OF TAXIWAY A WILL BE CLOSED WHEN CONSTRUCTING IN WORK AREA 3B-NIGHT.
- CONTRACTOR TO ENSURE SOUTHERN PORTION OF TAXIWAY A EDGE LIGHTS ARE DISCONNECTED, TURNED OFF, OR COVERED.
- CONTRACTOR WILL HAVE 4 CONSECUTIVE CALENDAR DAYS TO COMPLETE WORK IN AREA 3B.
- CONTRACTOR WILL HAVE 1 CALENDAR NIGHT TO COMPLETE WORK IN AREA 3B-NIGHT. WORK IN AREA 3B-NIGHT SHALL BE NIGHT WORK, ALL WORK SHALL BE COMPLETED DURING THE HOURS OF 6PM AND 6AM.

**A1** LEGEND  
SCALE: NOT TO SCALE

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE



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FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION

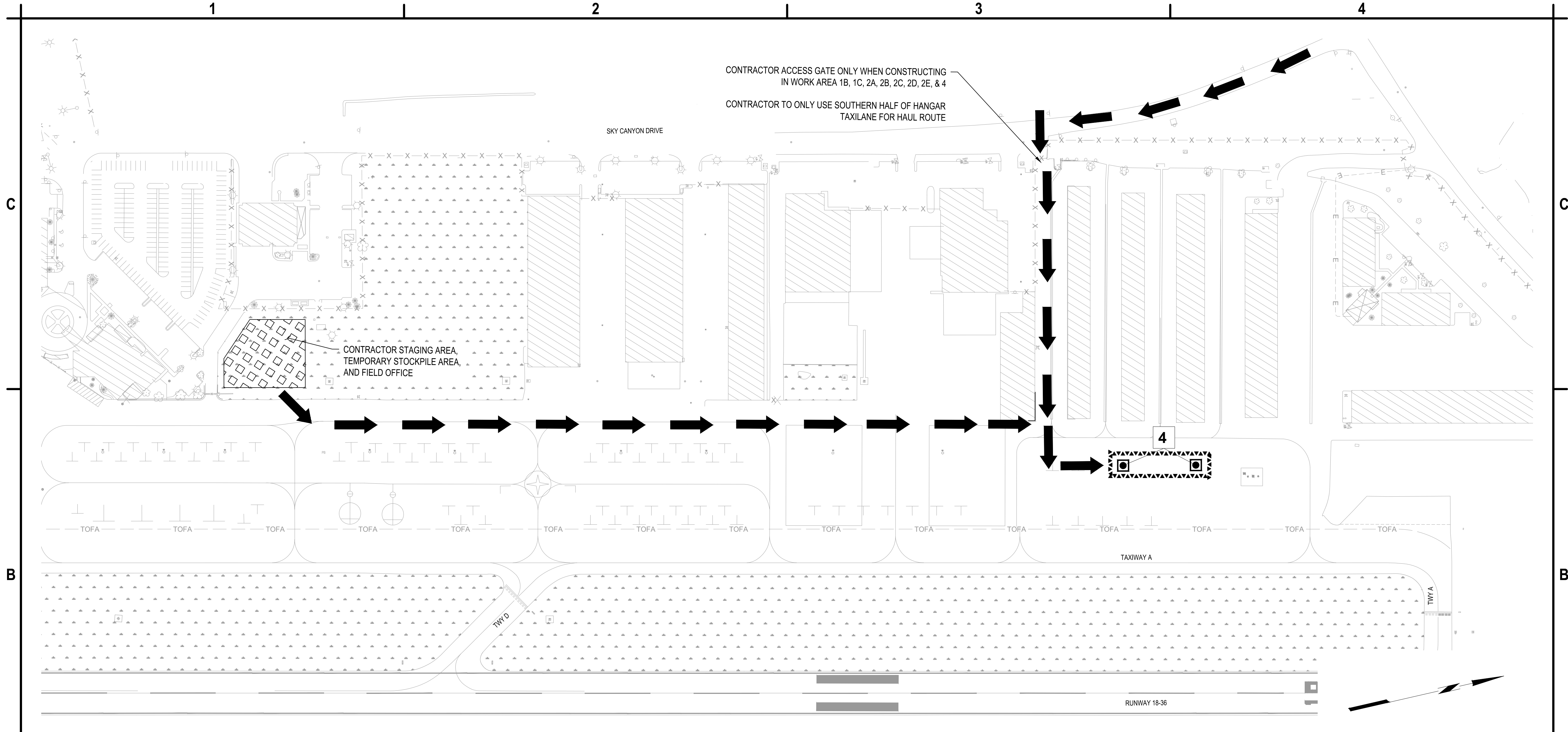
MURRIETA, CALIFORNIA

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WORK AREA 3B  
PHASING AND  
BARRICADE PLAN -  
BID ALT #2

GC111





CONTRACTOR ACCESS GATE ONLY WHEN CONSTRUCTING  
IN WORK AREA 1B, 1C, 2A, 2B, 2C, 2D, 2E, & 4

CONTRACTOR TO ONLY USE SOUTHERN HALF OF HANGAR  
TAXILANE FOR HAUL ROUTE

CONTRACTOR STAGING AREA,  
TEMPORARY STOCKPILE AREA,  
AND FIELD OFFICE

RUNWAY 18-36

TAXIWAY A

4

TWY A

TWY D

TOFA

TOFA

TOFA

TOFA

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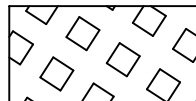
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## B1 CONSTRUCTION SAFETY PHASING PLAN - WORK AREA "2B"

SCALE: 1" = 100'



WORK AREA 4



CONTRACTOR STAGING AREA AND TEMPORARY  
STOCKPILE AREA



CONTRACTOR ACCESS ROUTE



WORK AREA



LOW PROFILE BARRICADE, SEE DETAIL A3, SHEET GC101

- ALL PERSONAL VEHICLES SHALL BE PARKED IN THE PARKING LOT LOCATED OUTSIDE OF THE TERMINAL BUILDING.
- THE STAGING AREA IS NOT FENCED OR SECURED. FENCING & SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL COMPLY WITH THE CONSTRUCTION SAFETY PLAN IN SECTION 70 OF THE CONTRACT DOCUMENTS.
- MAXIMUM EQUIPMENT HEIGHT = 25 FEET
- CONSTRUCTION VEHICLES MUST BE MARKED WITH AMBER BEACONS (DAY /NIGHT) OR ORANGE AND WHITE FLAGS DURING DAYLIGHT HOURS.
- CONTRACTOR SHALL ELIMINATE FOREIGN OBJECT DEBRIS PER THE CONSTRUCTION SAFETY PLAN.
- THE CONTRACTOR SHALL KEEP GATES CLOSED AND SECURE AT ALL TIMES.
- ALL ROADS USED TO ACCESS SITE SHALL BE MAINTAINED. AT THE COMPLETION OF ALL CONSTRUCTION ACTIVITY, ROADS SHALL BE OPENED AT SAME OR BETTER CONDITION (TYP.).
- TAXIING AIRCRAFT SHALL ALWAYS HAVE THE RIGHT OF WAY.
- AT NO TIME SHALL CONTRACTOR PERSONNEL OR EQUIPMENT ENTER A MOVEMENT AREA WITHOUT APPROVAL FROM THE AIRPORT.
- ALL CONSTRUCTION DEBRIS INCLUDING DIRT TRACKING OUTSIDE THE STAGING AREA(S) SHALL CLEANED UP IMMEDIATELY.
- HANGAR TENANTS THAT NEED ACCESS DURING CONSTRUCTION WILL NEED TO RELOCATE TO TIE-DOWN PARKING AREAS.
- CONTRACTOR WILL HAVE 14 CONSECUTIVE CALENDAR DAYS TO COMPLETE WORK IN THIS AREA.
- WORK IN PHASE 4 MAY BE CONCURRENT WITH PHASES 2C AND 2D.

## A1 LEGEND

SCALE: NOT TO SCALE

## A3 GENERAL NOTES

SCALE: NOT TO SCALE



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## FRENCH VALLEY AIRPORT APRON PAVEMENT REHABILITATION

MURRIETA, CALIFORNIA

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WORK AREA 4  
PHASING AND  
BARRICADE PLAN -  
BID ALT #3

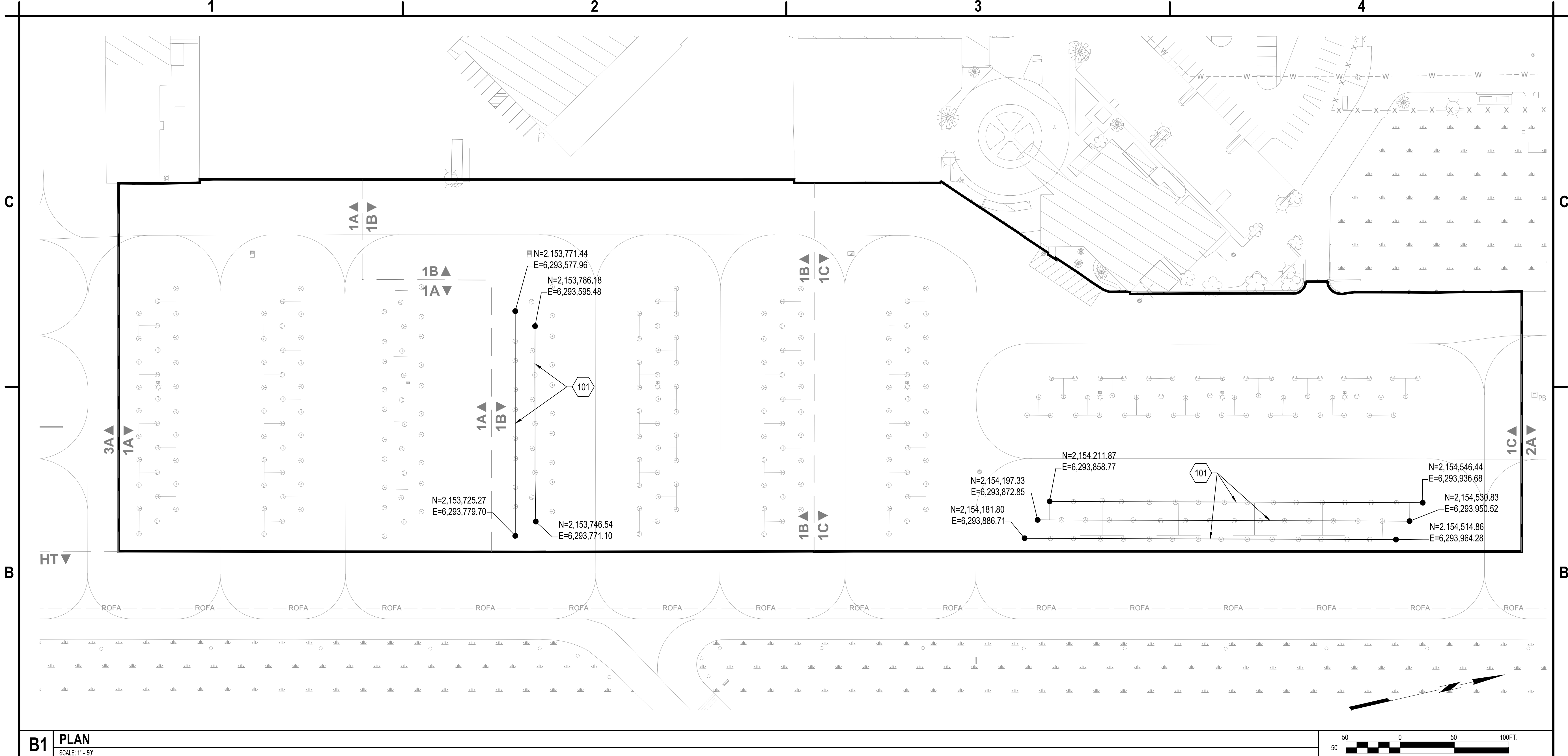
GC112

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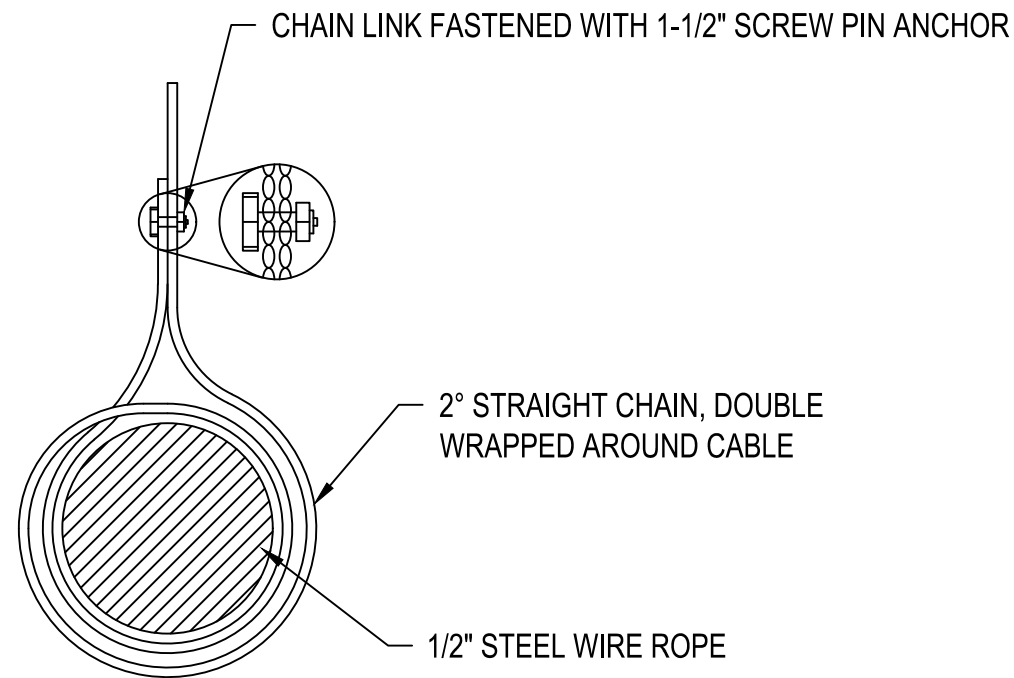
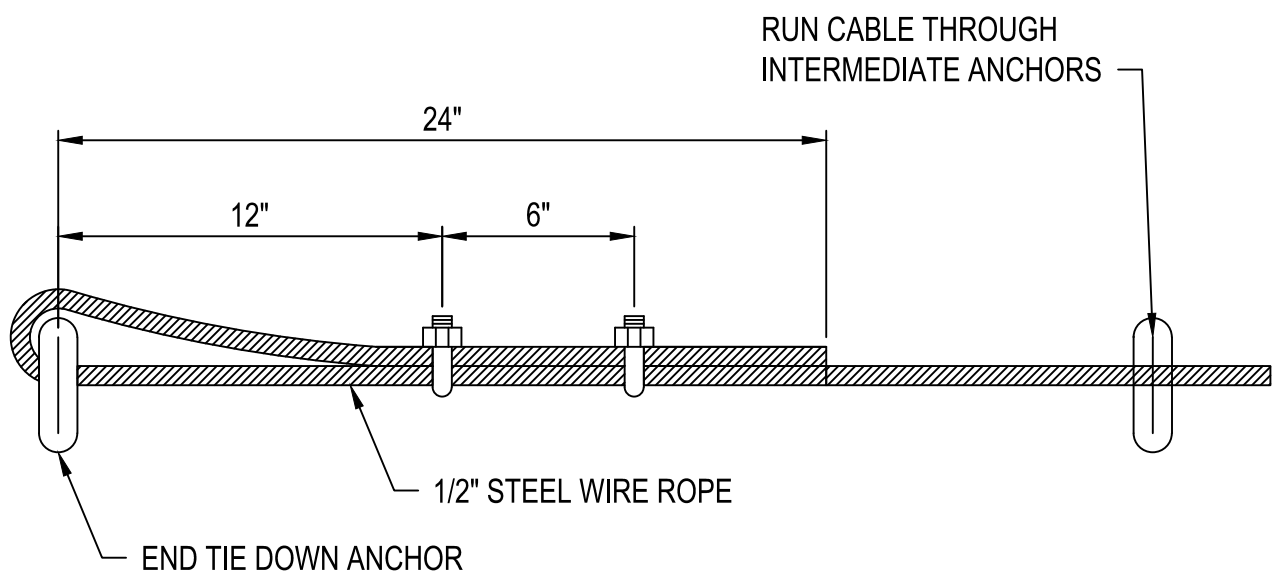


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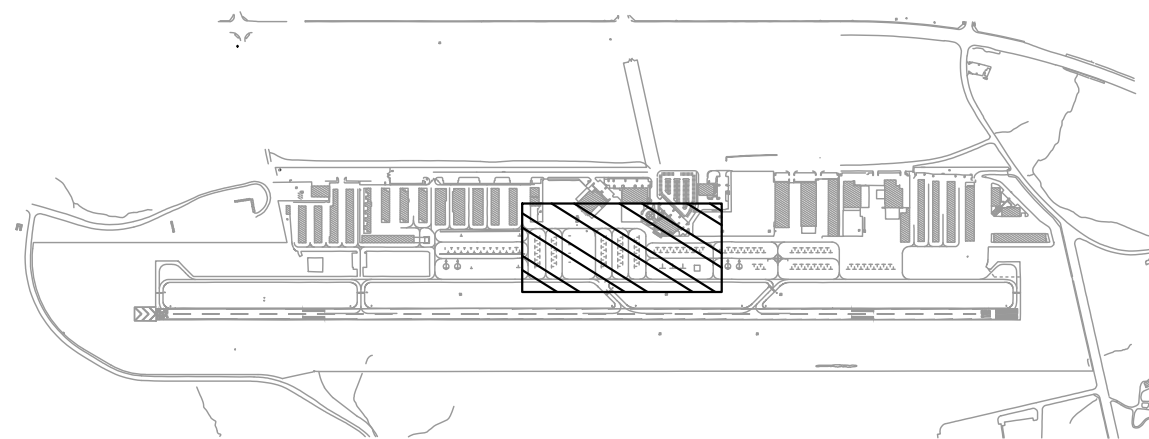


**B1 PLAN**  
SCALE: 1" = 50'

**101** INSTALL 1/2" STEEL WIRE ROPE PER DETAIL C1, THIS SHEET. INCIDENTAL TO ITEM L-126.



- NOTES:**
- TEMPORARY TIE DOWN SYSTEM LOCATED IN WORK AREA 1B SHALL ONLY BE USED WHEN NOT WORKING IN THAT AREA.
  - TEMPORARY TIE DOWN SYSTEM LOCATED IN WORK AREA 1C SHALL ONLY BE USED WHEN NOT WORKING IN THAT AREA.
  - UPON COMPLETION OF THE PROJECT, TIE DOWN CHAINS AND STEEL WIRE ROPES SHALL BE REMOVED AND SALVAGED - TO BECOME AIRPORT PROPERTY.



**A1 KEYED NOTES**  
SCALE: NOT TO SCALE

**A2 TIE DOWN CABLE CONNECTION**  
SCALE: NOT TO SCALE

**A3 CABLE TIE DOWN CHAIN ATTACHMENT**  
SCALE: NOT TO SCALE

**A4 NOTES AND KEYMAP**  
SCALE: NOT TO SCALE



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**MURRIETA, CALIFORNIA**

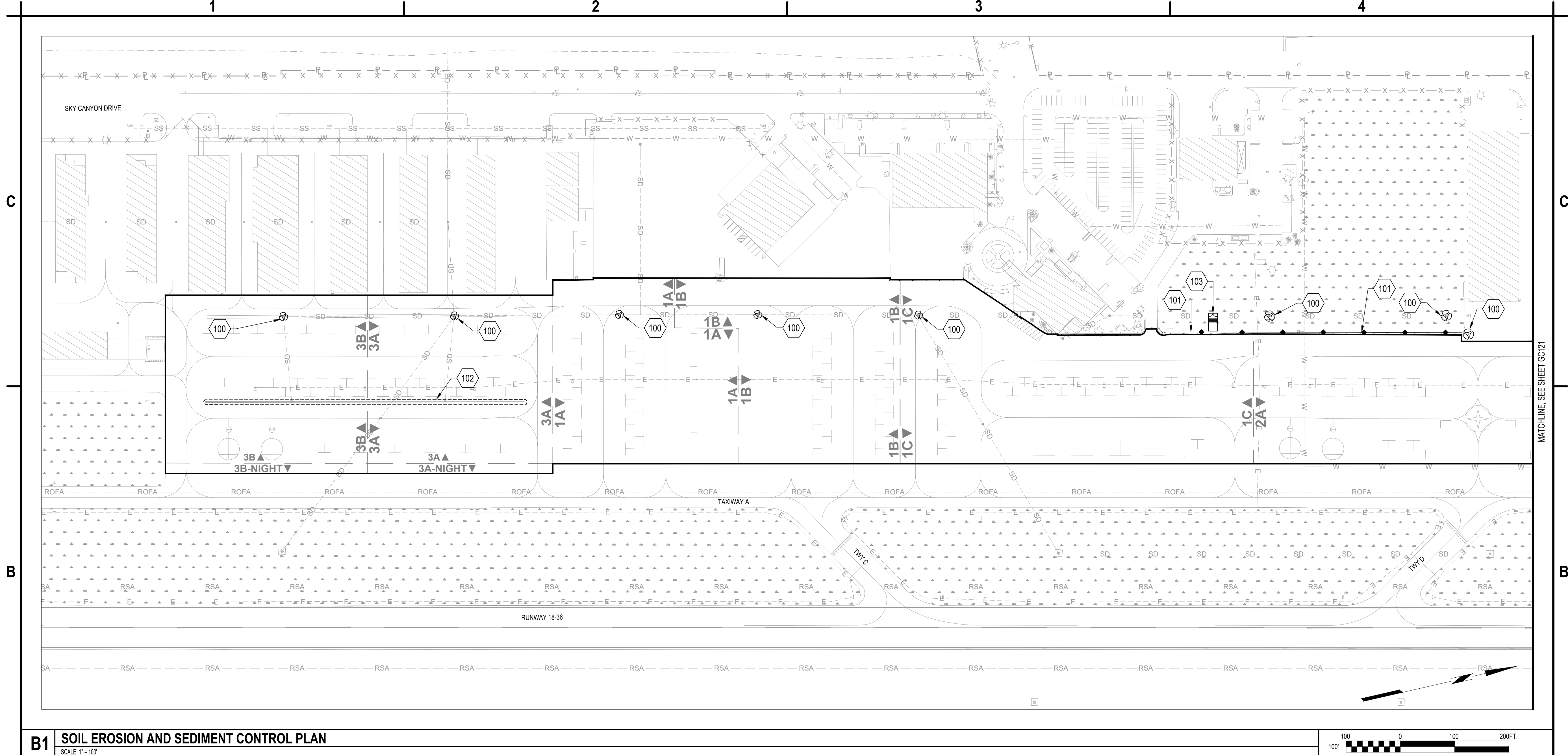
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**TEMPORARY TIE  
DOWN PLAN**

**GC113**



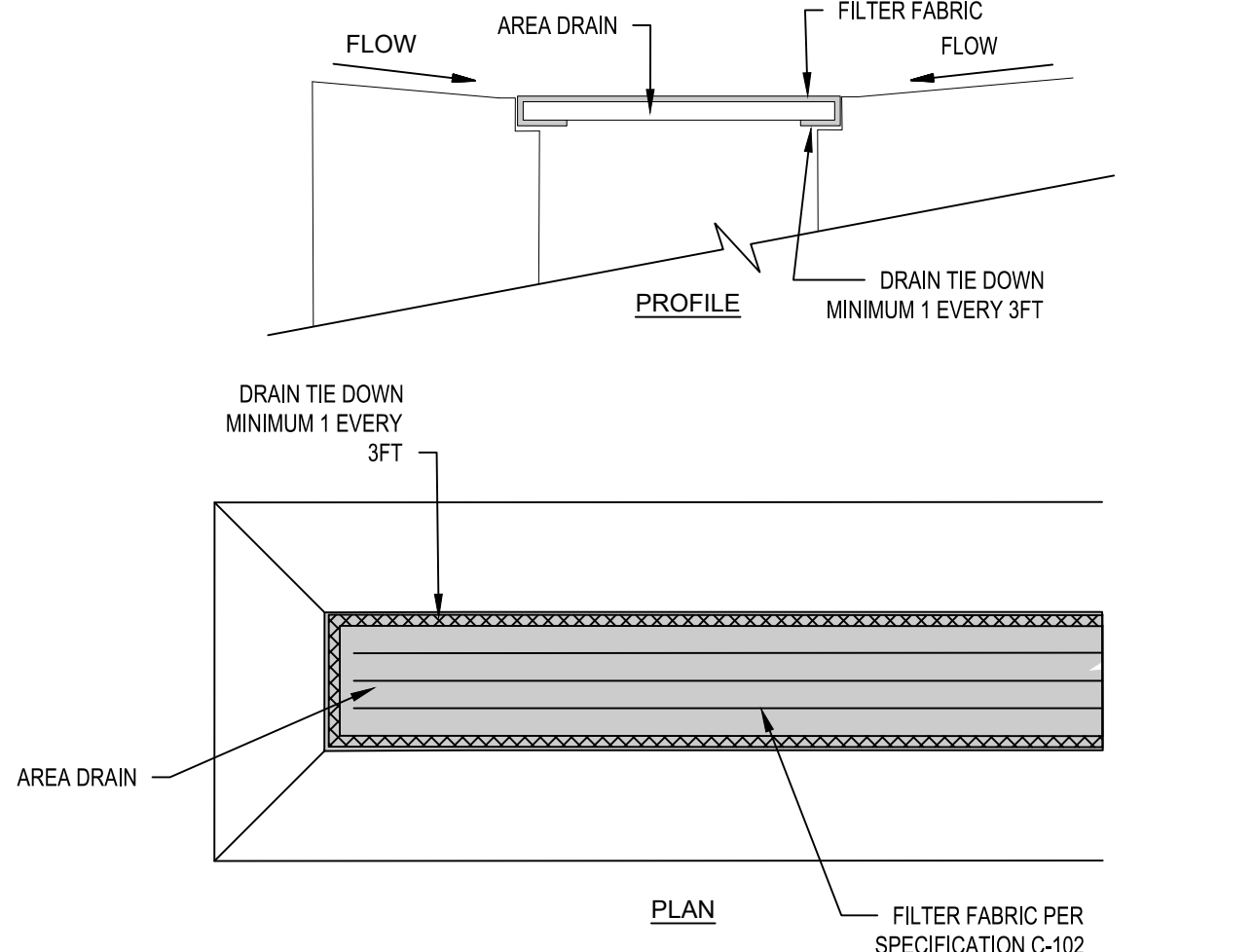
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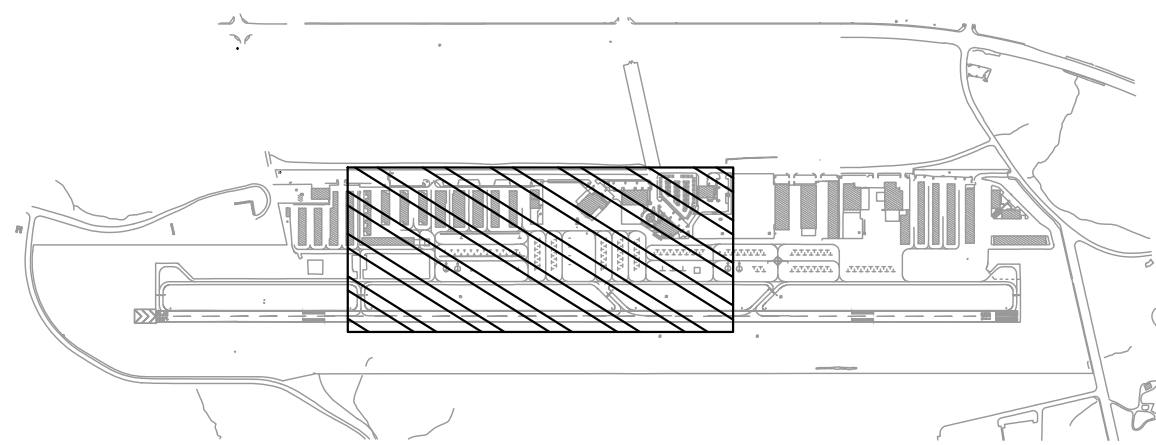
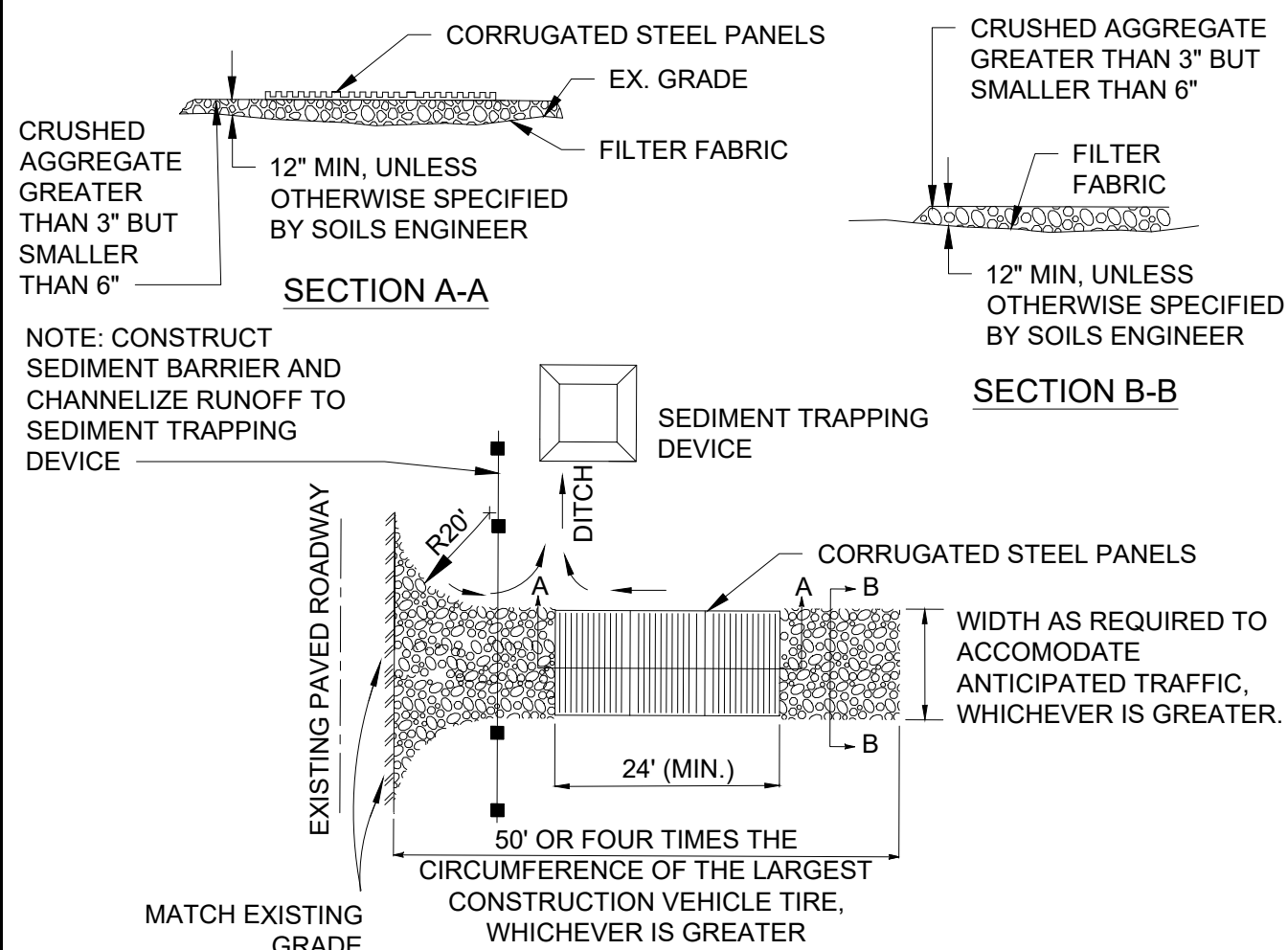
**B1** SOIL EROSION AND SEDIMENT CONTROL PLAN  
SCALE: 1" = 100'

- 100 INSTALL STORM DRAIN INLET PROTECTION, SEE DETAILS A2, SHEET GC121  
101 INSTALL SILT FENCE, SEE DETAILS A2, SHEET GC121  
102 INSTALL TRENCH DRAIN PROTECTION, SEE DETAILS A2, THIS SHEET  
103 INSTALL STABILIZED CONSTRUCTION ENTRANCE, SEE DETAILS A3, THIS SHEET

PROPOSED STORM DRAIN INLET PROTECTION  
PROPOSED SILT FENCE  
PROPOSED TRENCH DRAIN PROTECTION  
STABILIZED CONSTRUCTION ENTRANCE



- TRENCH DRAIN PROTECTION NOTES:
1. PLACE FILTER FABRIC OVER AREA DRAIN. PLACE AT LEAST ONE TIE DOWN EVERY 3FT TO SECURE FABRIC.
  2. REGULARLY CLEAR COLLECTED DEBRIS FROM FABRIC TO INSURE CONTINUED OPERATION OF SEDIMENT CONTROL.



**A1** NOTES AND LEGEND  
SCALE: NOT TO SCALE

**A2** TRENCH DRAIN PROTECTION DETAIL  
SCALE: NOT TO SCALE

**A3** STABILIZED CONSTRUCTION ENTRANCE/EXIT  
SCALE: NOT TO SCALE

**A4** KEYMAP  
SCALE: NOT TO SCALE



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# FRENCH VALLEY AIRPORT APRON PAVEMENT REHABILITATION

MURRIETA, CALIFORNIA

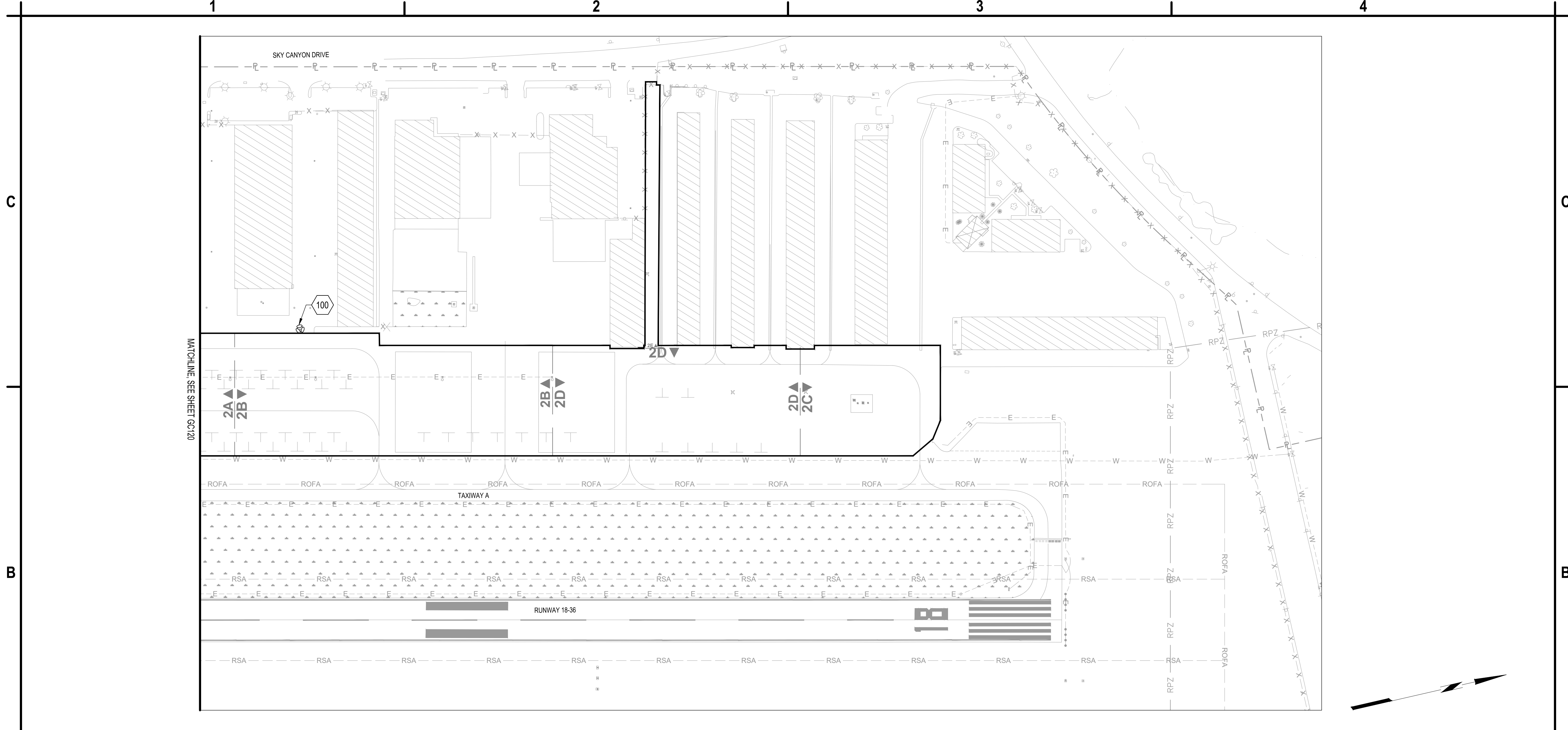
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REVISIONS		
PROJECT NO: K45.004.003		
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DESIGNED BY: N. EASLEY		
CHECKED BY: C. CALATRELLO		
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## SOIL EROSION AND SEDIMENT CONTROL PLAN

GC120



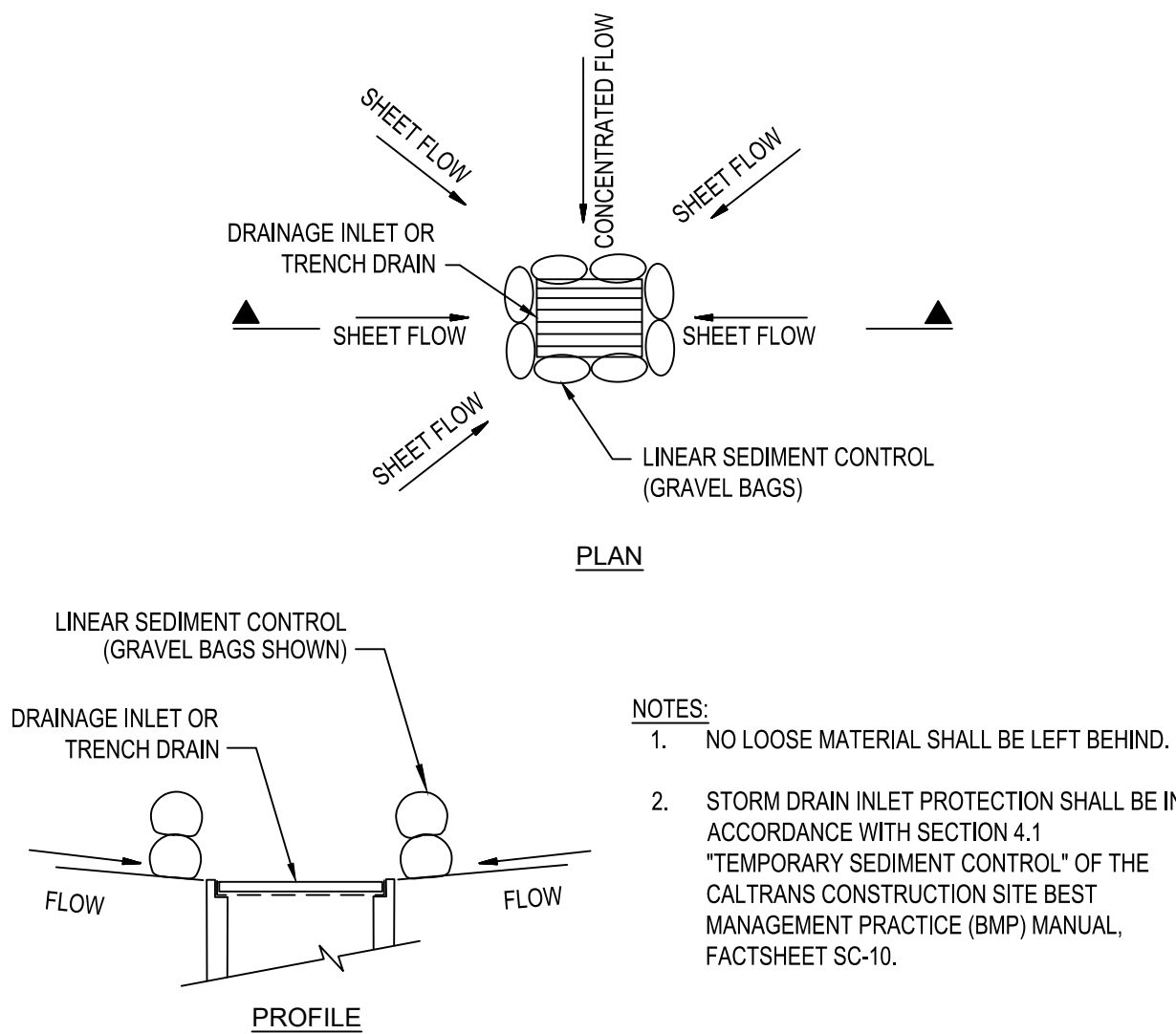
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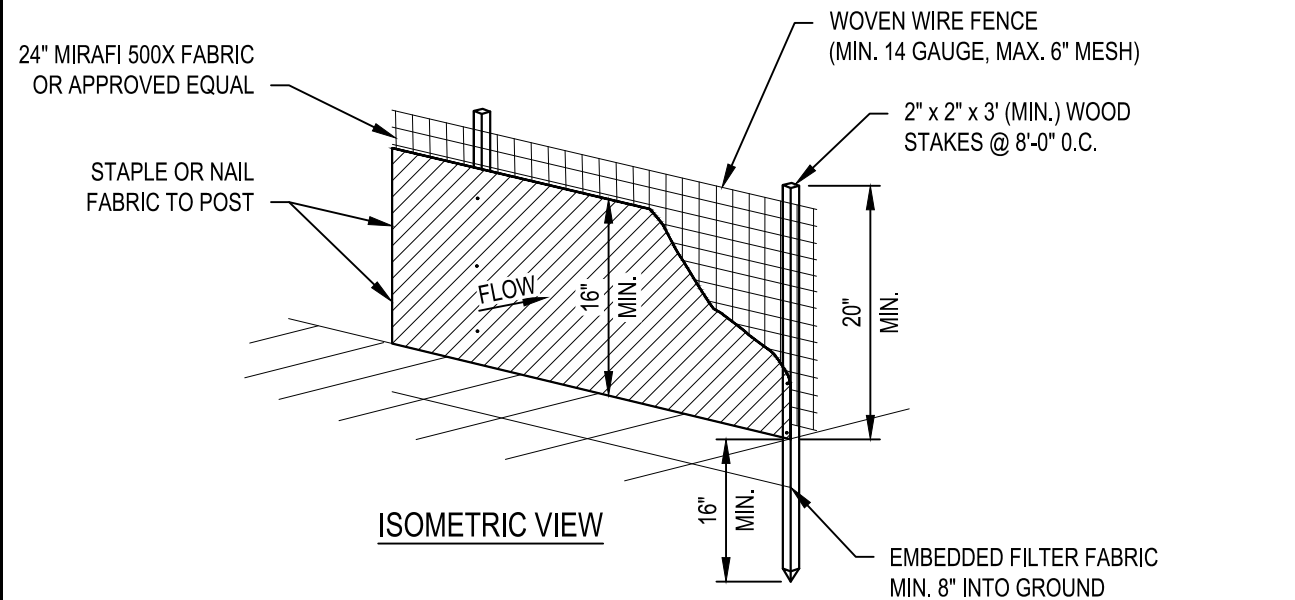
**B1** SOIL EROSION AND SEDIMENT CONTROL PLAN  
SCALE: 1" = 100'

100 INSTALL STORM DRAIN INLET PROTECTION, SEE DETAILS A2, SHEET GC121

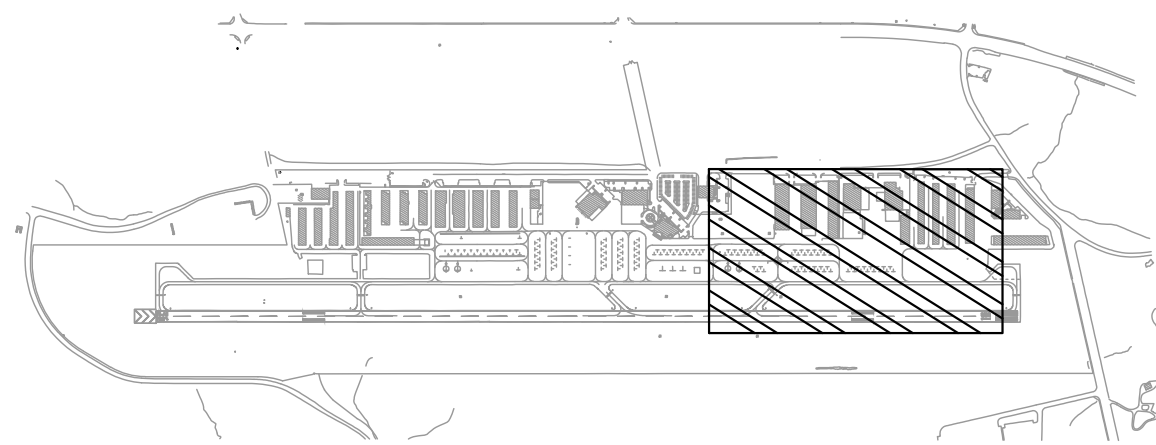
PROPOSED STORM DRAIN INLET PROTECTION  
PROPOSED SILT FENCE



**A2** STORM DRAIN INLET PROTECTION DETAIL  
SCALE: NOT TO SCALE



**A3** SILT FENCE DETAIL  
SCALE: NOT TO SCALE



**A4** KEYMAP  
SCALE: NOT TO SCALE



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**FRENCH VALLEY AIRPORT APRON  
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**SOIL EROSION AND  
SEDIMENT CONTROL  
PLAN**

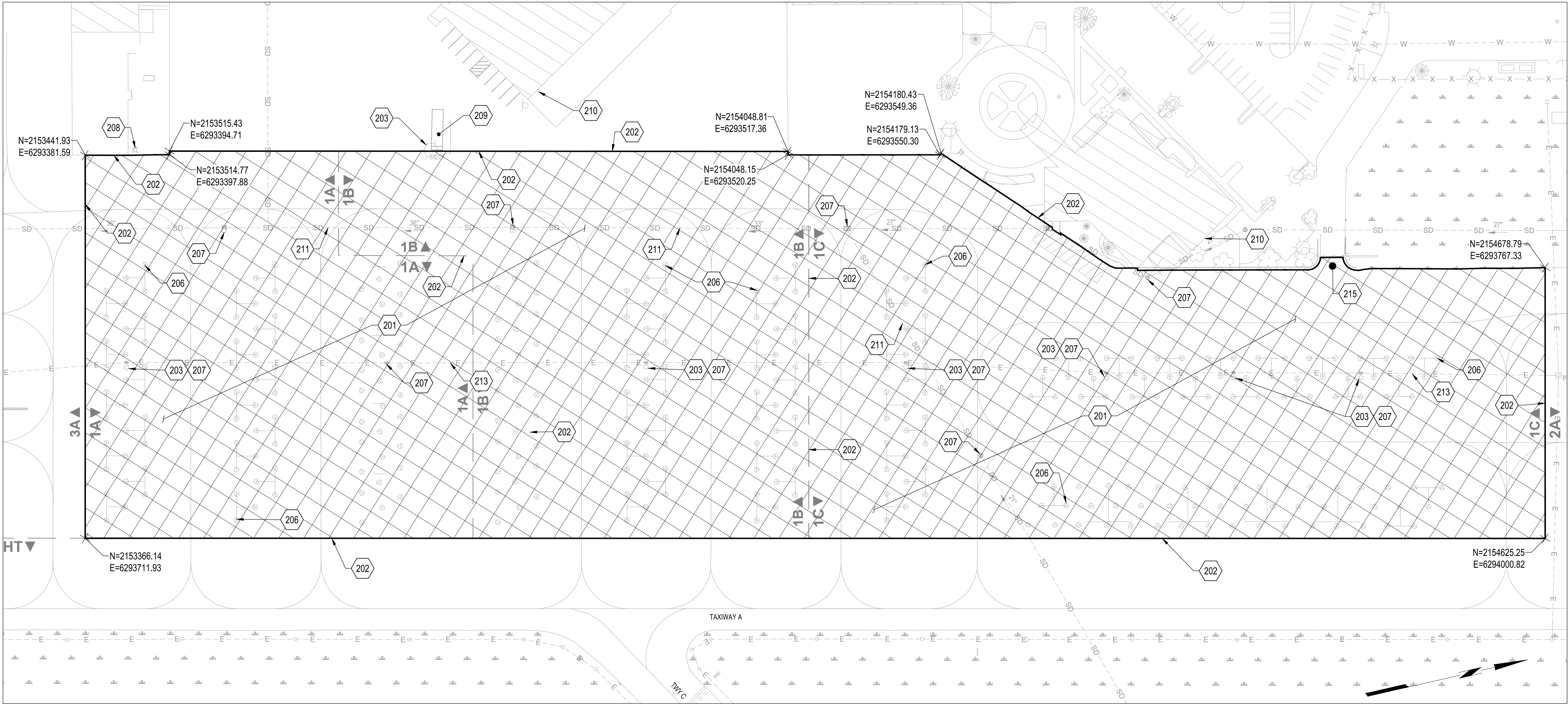
**GC121**

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**NOT FOR CONSTRUCTION**



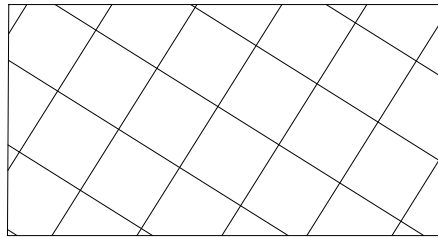
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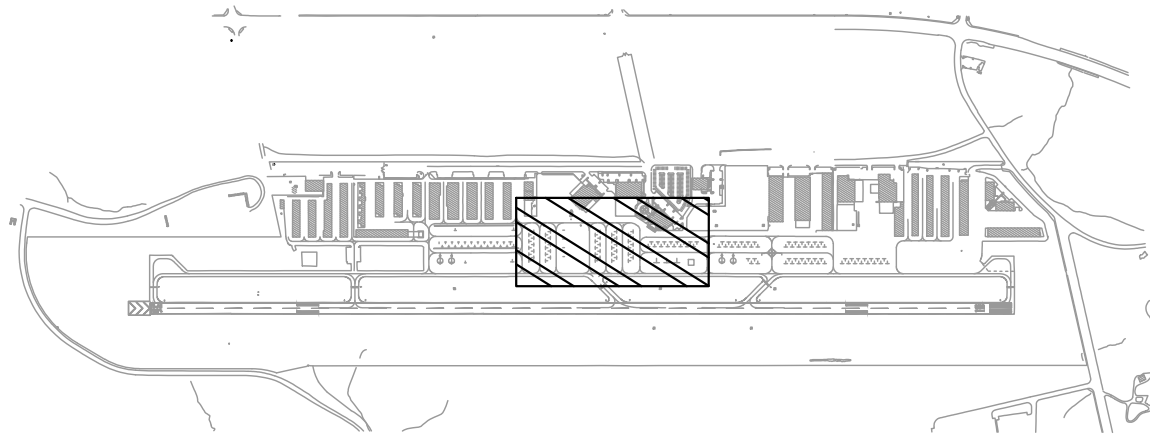
**B1** DEMOLITION PLAN - BASE BID  
SCALE: 1" = 50'



- 201 ASPHALT PAVEMENT REMOVAL, FULL DEPTH, ITEM P-101
- 202 FULL DEPTH SAWCUT IN EXISTING PAVEMENT, INCIDENTAL TO ITEM P-101
- 203 PROTECT IN PLACE EXISTING AREA LIGHT BASE
- 206 REMOVE AND DISPOSE OF EXISTING CONCRETE TIE DOWN ANCHORS AND ALL CHAINS, CABLES, AND ACCESSORIES AS NECESSARY (TYP.), INCIDENTAL TO ITEM P-101
- 207 PROTECT IN PLACE EXISTING UTILITY STRUCTURE
- 208 PROTECT IN PLACE EXISTING FIRE HYDRANT AND PROTECTIVE BOLLARDS
- 209 PROTECT IN PLACE EXISTING FUEL TANK
- 210 PROTECT IN PLACE EXISTING HANGAR OR BUILDING
- 211 PROTECT IN PLACE EXISTING STORM DRAIN LINE
- 213 PROTECT IN PLACE EXISTING ELECTRICAL LINE
- 215 REMOVE VEHICLE DETECTION LOOP. CUT AND REMOVE PER CALTRANS STD ES-5A AND ES-5B, INCIDENTAL TO ITEM P-101



ASPHALT PAVEMENT REMOVAL, FULL DEPTH



**A1** KEYED NOTES  
SCALE: NOT TO SCALE

**A2** LEGEND  
SCALE: NOT TO SCALE

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE

**A4** KEYMAP  
SCALE: NOT TO SCALE



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**FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION**

**MURRIETA, CALIFORNIA**

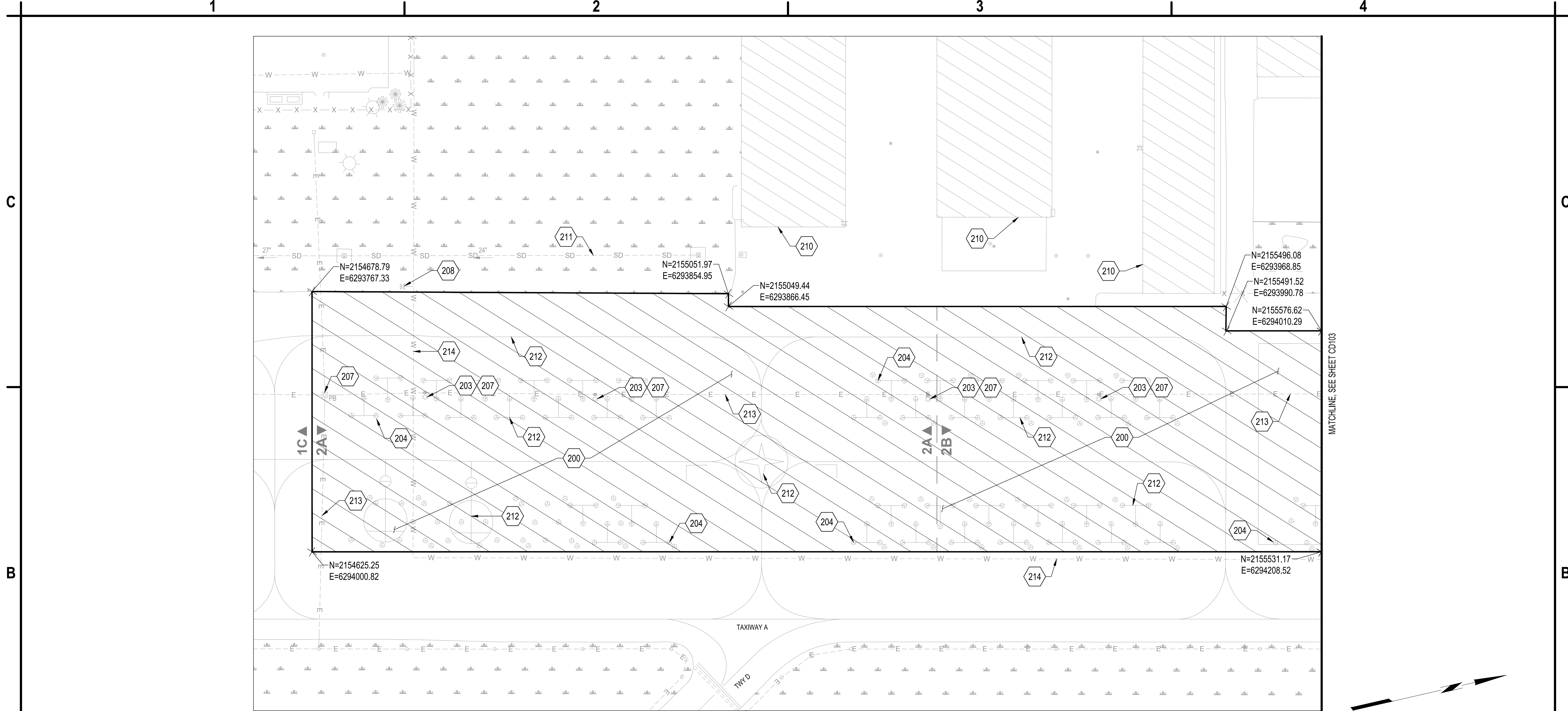
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**DEMOLITION PLAN -  
BASE BID**

**CD101**



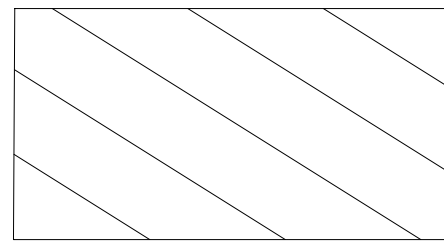
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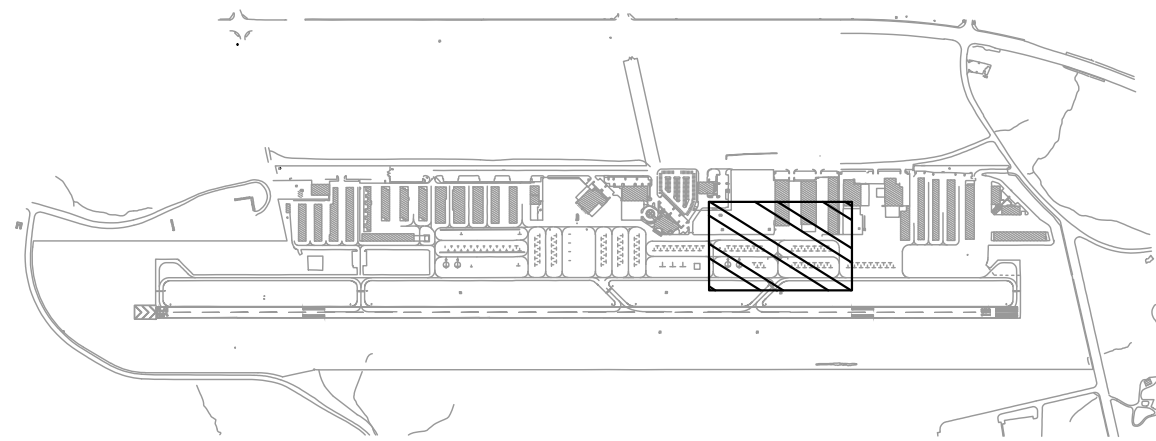
**B1** DEMOLITION PLAN - BID ALT #1  
SCALE: 1" = 50'



- 200 PREPARE SURFACE TO RECEIVE CRACK REPAIR AND SEAL COAT TREATMENT, ITEM P-101
- 203 PROTECT IN PLACE EXISTING AREA LIGHT BASE
- 204 PROTECT IN PLACE EXISTING CONCRETE TIE-DOWN ANCHORS, REMOVE AND SALVAGE ALL CHAINS, CABLES, AND ACCESSORIES AS NECESSARY (TYP.)
- 207 PROTECT IN PLACE EXISTING UTILITY STRUCTURE
- 208 PROTECT IN PLACE EXISTING FIRE HYDRANT AND PROTECTIVE BOLLARDS
- 210 PROTECT IN PLACE EXISTING HANGAR OR BUILDING
- 211 PROTECT IN PLACE EXISTING STORM DRAIN LINE
- 212 OBLITERATE EXISTING PAVEMENT MARKINGS (TYP.)
- 213 PROTECT IN PLACE EXISTING ELECTRICAL LINE
- 214 PROTECT IN PLACE EXISTING WATER LINE



SURFACE PREPARATION AREA



**A1** KEYED NOTES  
SCALE: NOT TO SCALE

**A2** LEGEND  
SCALE: NOT TO SCALE

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE

**A4** KEYMAP  
SCALE: NOT TO SCALE



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**DEMOLITION PLAN -  
BID ALT #1**

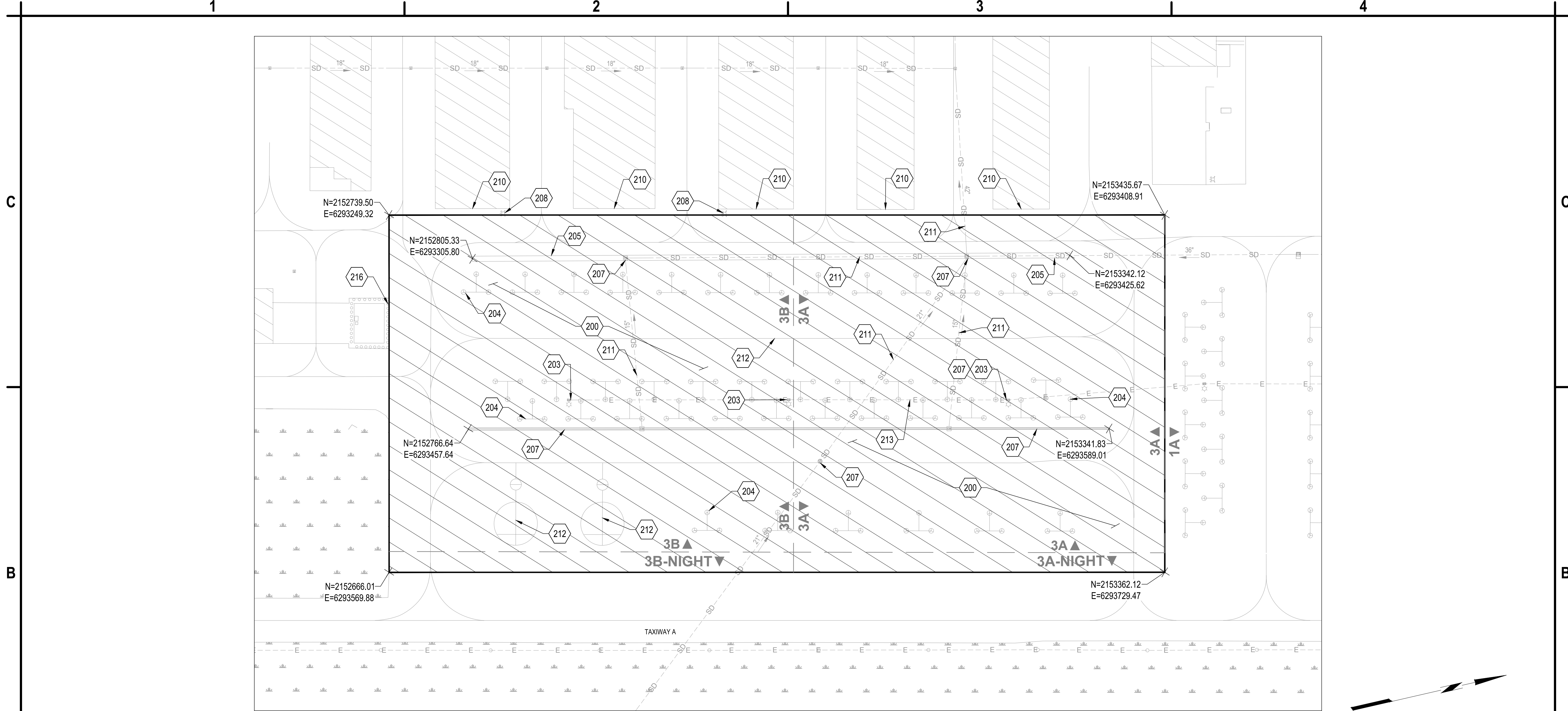
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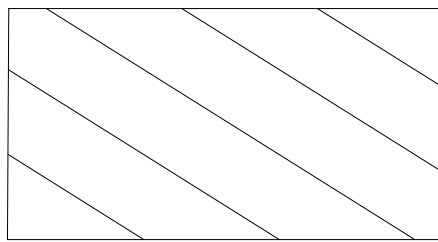
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**B1** DEMOLITION PLAN - BID ALT #2  
SCALE: 1" = 50'

- 200 PREPARE SURFACE TO RECEIVE CRACK REPAIR AND SEAL COAT TREATMENT, ITEM P-101
- 203 PROTECT IN PLACE EXISTING AREA LIGHT BASE
- 204 PROTECT IN PLACE EXISTING CONCRETE TIE-DOWN ANCHORS, REMOVE AND SALVAGE ALL CHAINS, CABLES, AND ACCESSORIES AS NECESSARY (TYP.)
- 205 PROTECT IN PLACE EXISTING VALLEY GUTTER
- 207 PROTECT IN PLACE EXISTING UTILITY STRUCTURE
- 208 PROTECT IN PLACE EXISTING FIRE HYDRANT AND PROTECTIVE BOLLARDS
- 210 PROTECT IN PLACE EXISTING HANGAR OR BUILDING
- 211 PROTECT IN PLACE EXISTING STORM DRAIN LINE
- 212 OBLITERATE EXISTING PAVEMENT MARKINGS (TYP.)
- 213 PROTECT IN PLACE EXISTING ELECTRICAL LINE
- 216 PROTECT IN PLACE PROTECTIVE BOLLARDS

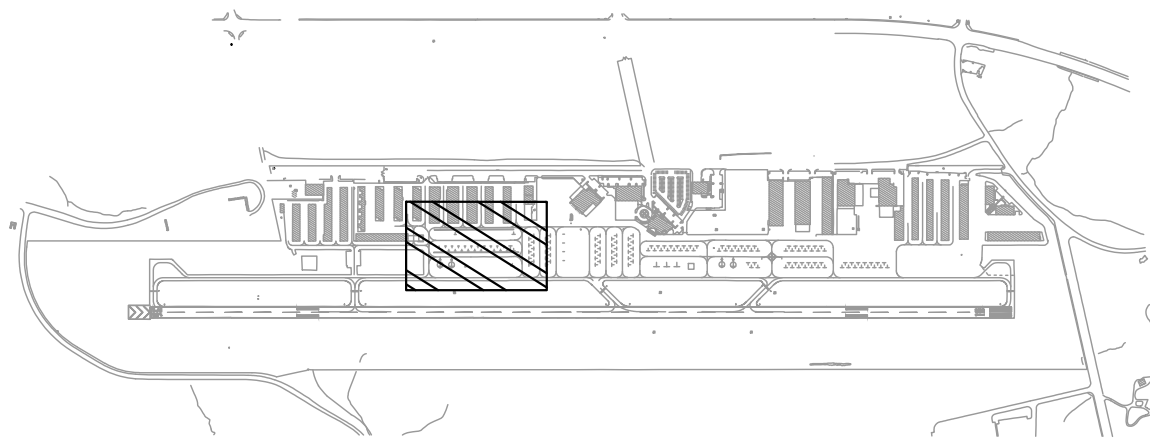
**A1** KEYED NOTES  
SCALE: NOT TO SCALE



SURFACE PREPARATION AREA

**A2** LEGEND  
SCALE: NOT TO SCALE

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE



**A4** KEYMAP  
SCALE: NOT TO SCALE



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FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION

MURRIETA, CALIFORNIA

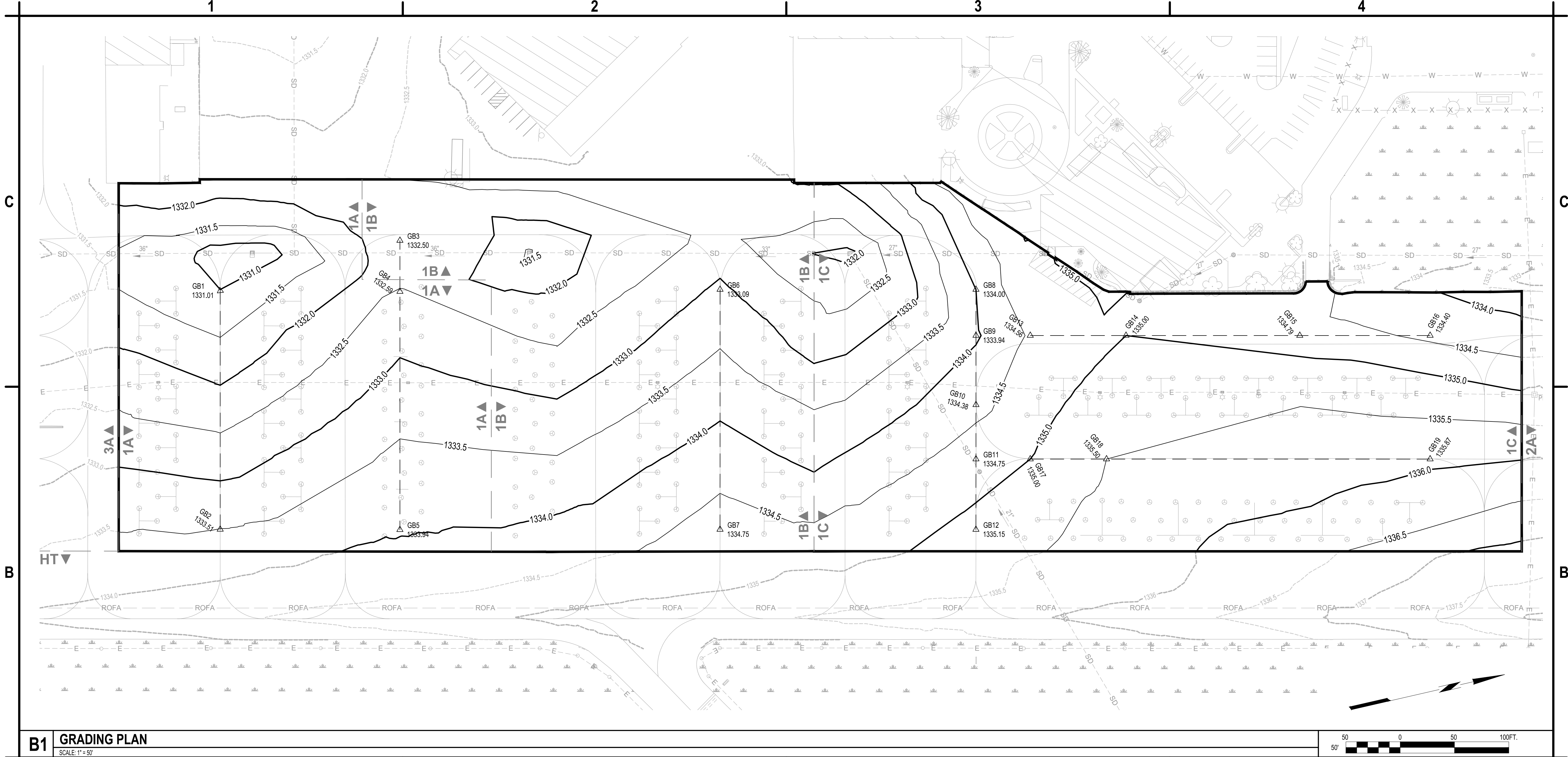
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DEMOLITION PLAN -  
BID ALT #2

CD104



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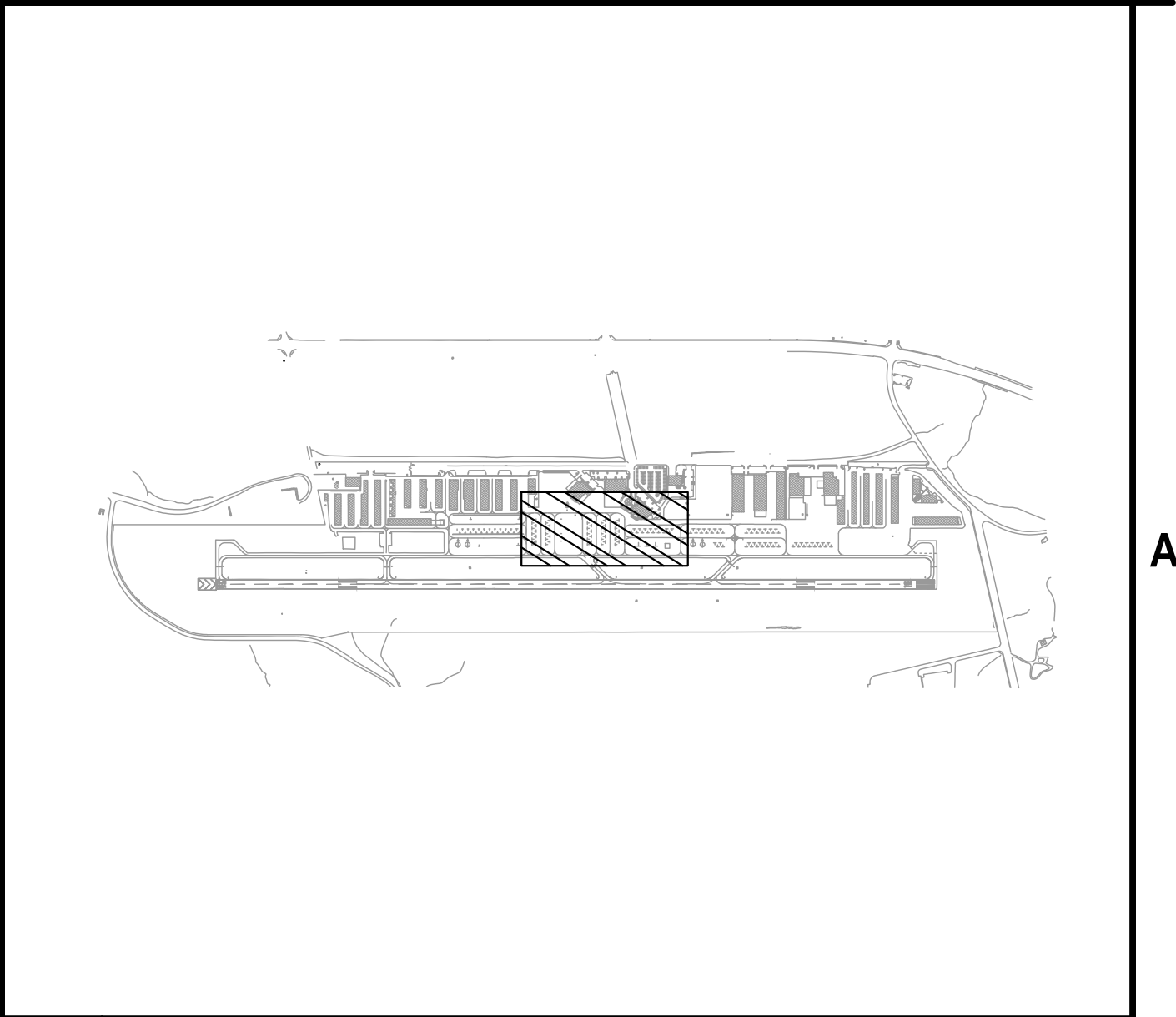


**B1** GRADING PLAN  
SCALE: 1" = 50'



—————	PROPOSED MAJOR CONTOUR
—————	PROPOSED MINOR CONTOUR
- - - - -	EXISTING MAJOR CONTOUR
- - - - -	EXISTING MINOR CONTOUR
GB#	PROPOSED GRADE BREAK ELEVATION POINT

POINT TABLE				POINT TABLE			
POINT NO.	NORTHING	EASTING	ELEV.	POINT NO.	NORTHING	EASTING	ELEV.
GB1	2,153,510.87	6,293,499.11	1,331.01	GB11	2,154,154.46	6,293,805.70	1,334.75
GB2	2,153,461.72	6,293,713.34	1,333.51	GB12	2,154,139.92	6,293,868.95	1,335.15
GB3	2,153,682.50	6,293,490.95	1,332.50	GB13	2,154,228.63	6,293,705.91	1,334.56
GB4	2,153,672.00	6,293,536.76	1,332.59	GB14	2,154,314.56	6,293,725.61	1,335.00
GB5	2,153,622.96	6,293,750.59	1,333.94	GB15	2,154,470.52	6,293,761.37	1,334.79
GB6	2,153,959.72	6,293,600.80	1,333.09	GB16	2,154,587.48	6,293,788.19	1,334.40
GB7	2,153,910.29	6,293,816.26	1,334.75	GB17	2,154,203.20	6,293,816.87	1,335.00
GB8	2,154,189.36	6,293,653.45	1,334.00	GB18	2,154,271.65	6,293,832.56	1,335.50
GB9	2,154,179.90	6,293,694.74	1,333.94	GB19	2,154,562.04	6,293,899.14	1,335.87
GB10	2,154,165.63	6,293,756.96	1,334.38				



**A1** NOT USED  
SCALE: NOT TO SCALE

**A2** LEGEND  
SCALE: NOT TO SCALE

**A3** POINT TABLE  
SCALE: NOT TO SCALE

**A4** KEYMAP  
SCALE: NOT TO SCALE



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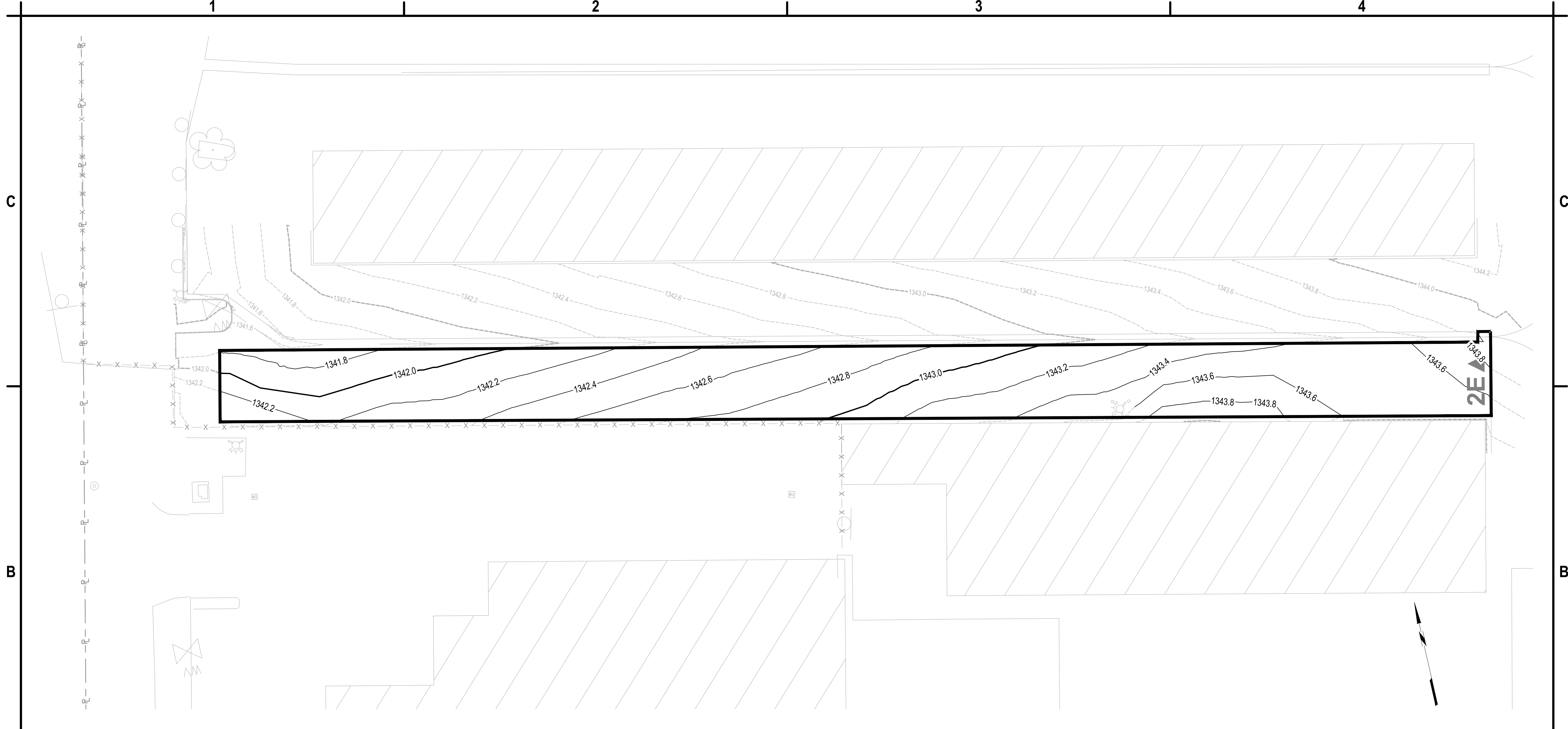
**GRADING PLAN -  
BASE BID**

**CG101**

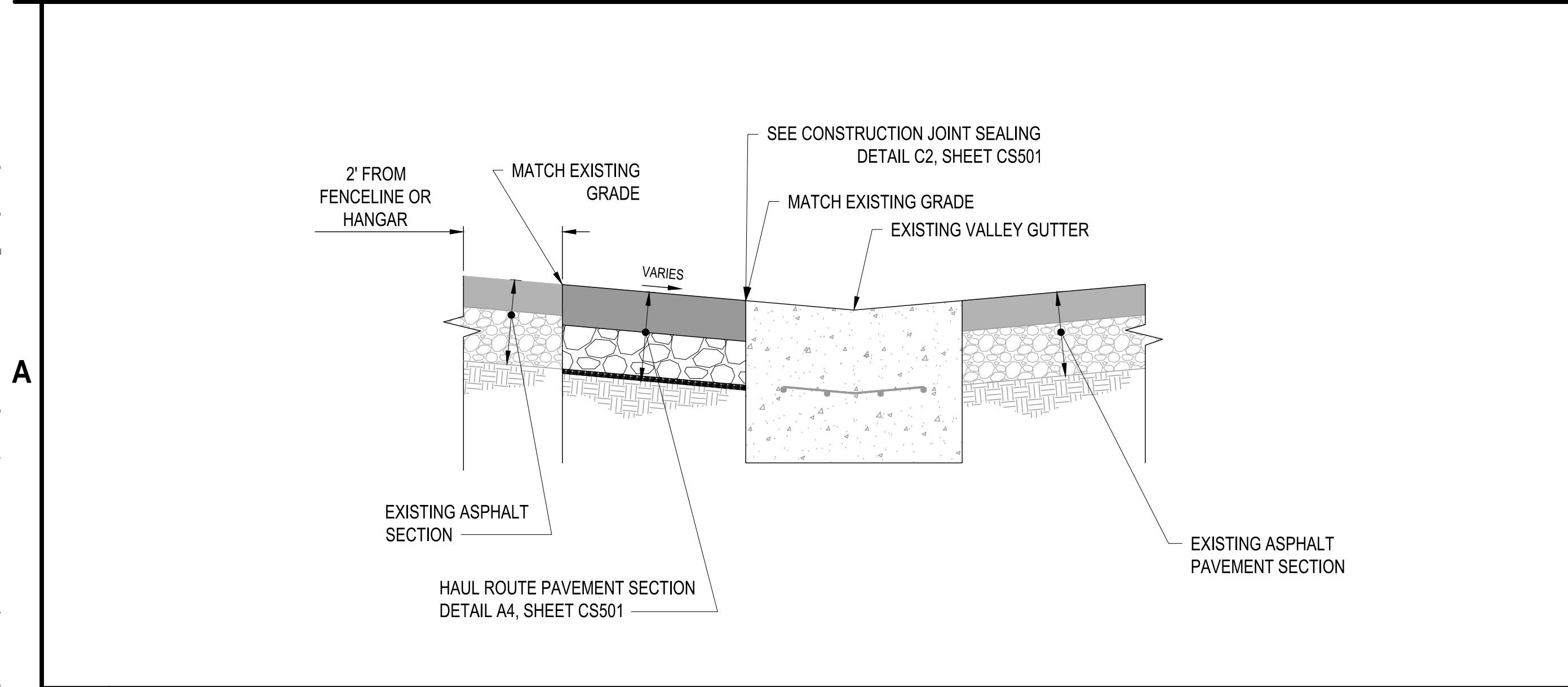
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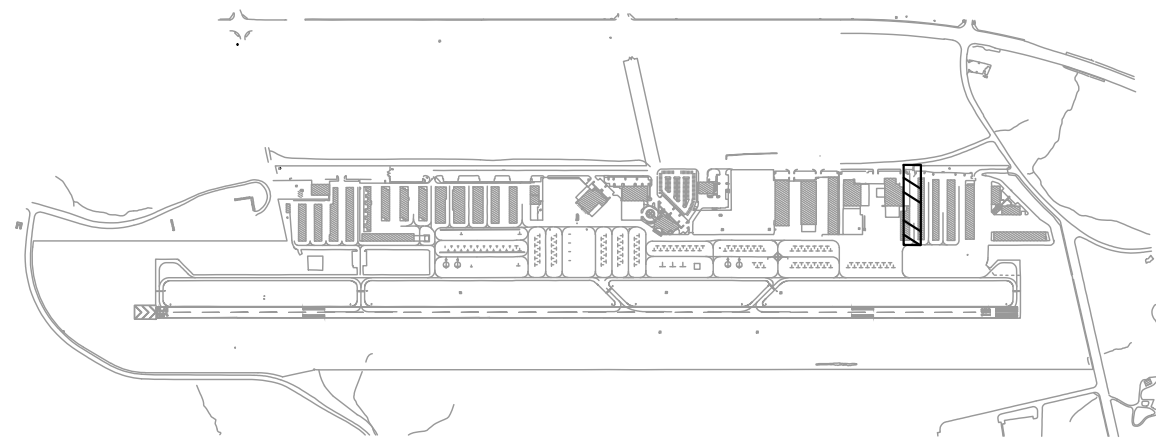
**B1** GRADING PLAN  
SCALE: 1" = 20'



**A1** HANGAR TAXILANE SECTION AT VALLEY GUTTER  
SCALE: NOT TO SCALE

- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR

**A3** LEGEND  
SCALE: NOT TO SCALE



**A4** KEYMAP  
SCALE: NOT TO SCALE



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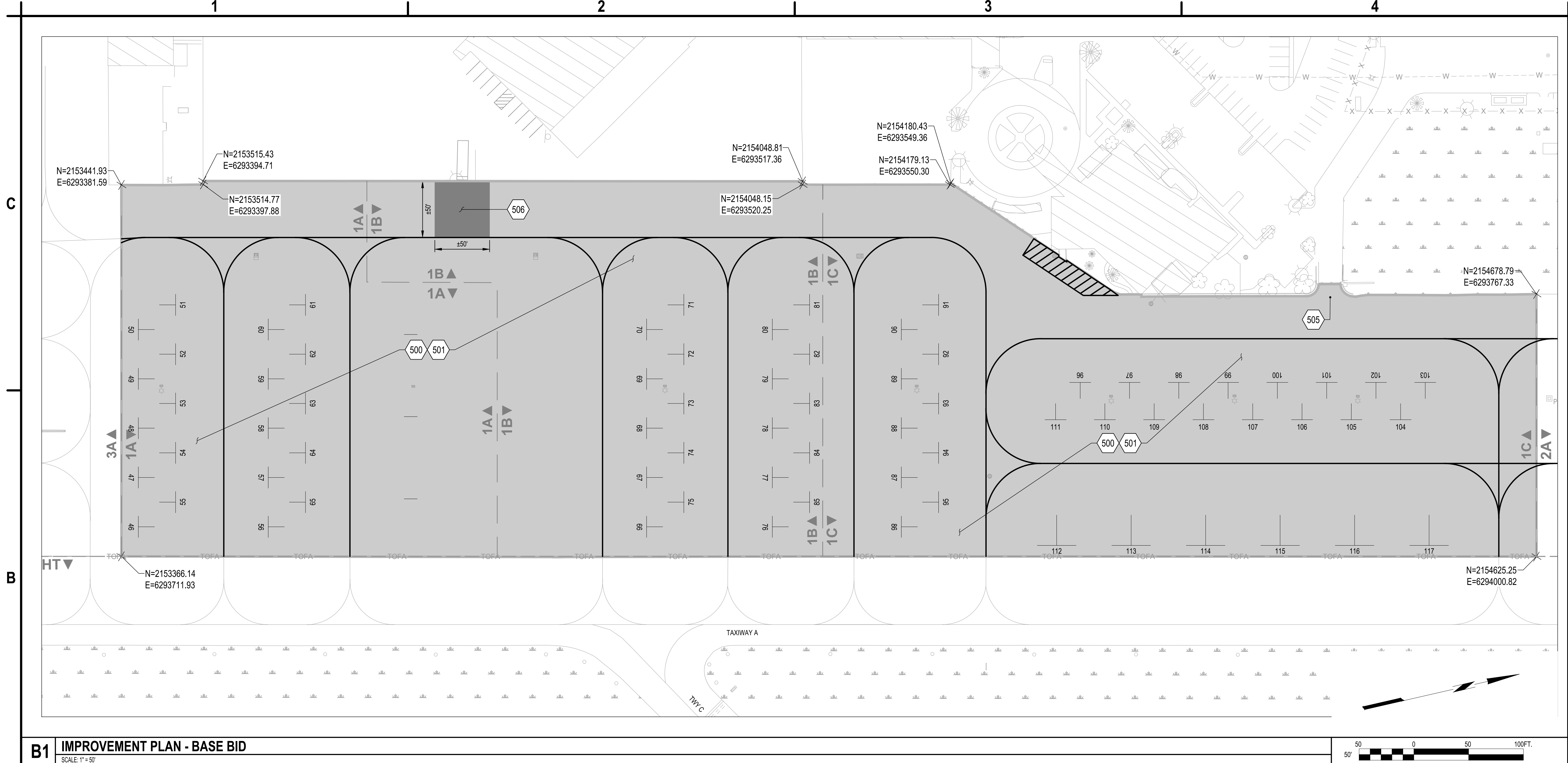
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GRADING PLAN - BID  
ALT #1

CG102

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**B1 IMPROVEMENT PLAN - BASE BID**  
SCALE: 1" = 50'



- 500** PROPOSED ASPHALT PAVEMENT, SEE DETAIL A1, SHEET CS501
- 501** SEAL COAT, ITEM P-623, 90-120 DAYS AFTER PAVING IS COMPLETE
- 505** INSTALL VEHICLE DETECTION LOOP. LOOP NUMBER, SIZE, SHAPE AND LOCATION SHALL MATCH EXISTING. CUT AND SEAL PER CALTRANS STD ES-5A AND ES-5B, SEE DETAIL C1 SHEET CS501, INCIDENTAL TO ITEM P-101
- 505** INSTALL VEHICLE DETECTION LOOP. LOOP NUMBER, SIZE, SHAPE AND LOCATION SHALL MATCH EXISTING. CUT AND SEAL PER CALTRANS STD ES-5A AND ES-5B, SEE DETAIL C2 SHEET CS501, INCIDENTAL TO ITEM P-101
- 506** EMULSIFIED ASPHALT SEAL COAT, EXACT LIMITS TO BE DETERMINED BY THE RPR, ITEM P-608

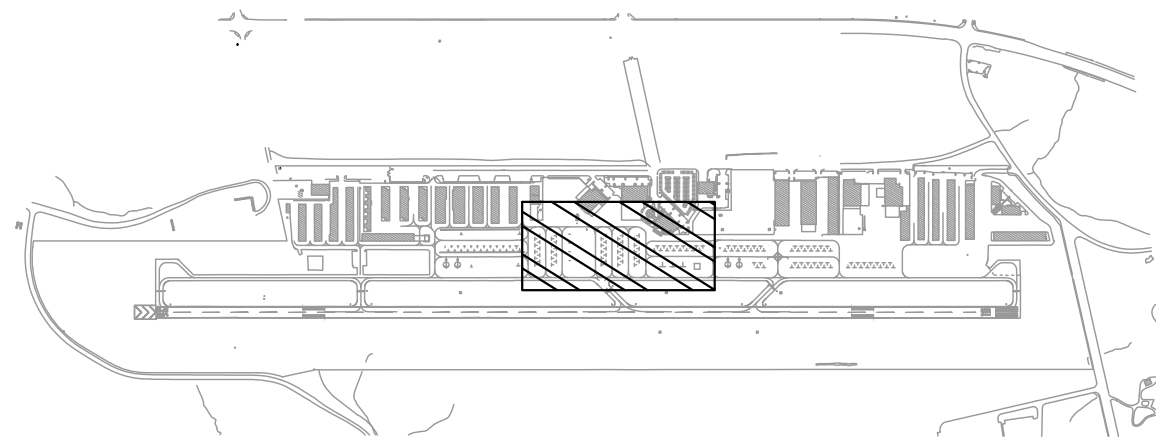


PROPOSED AC PAVEMENT AND FOG SEAL



PROPOSED AC PAVEMENT AND SEAL COAT

1. FOR PAVEMENT MARKING DATA SEE SHEETS CM101-CM104



**A1 KEYED NOTES**  
SCALE: NOT TO SCALE

**A2 LEGEND**  
SCALE: NOT TO SCALE

**A3 GENERAL NOTES**  
SCALE: NOT TO SCALE

**A4 KEYMAP**  
SCALE: NOT TO SCALE



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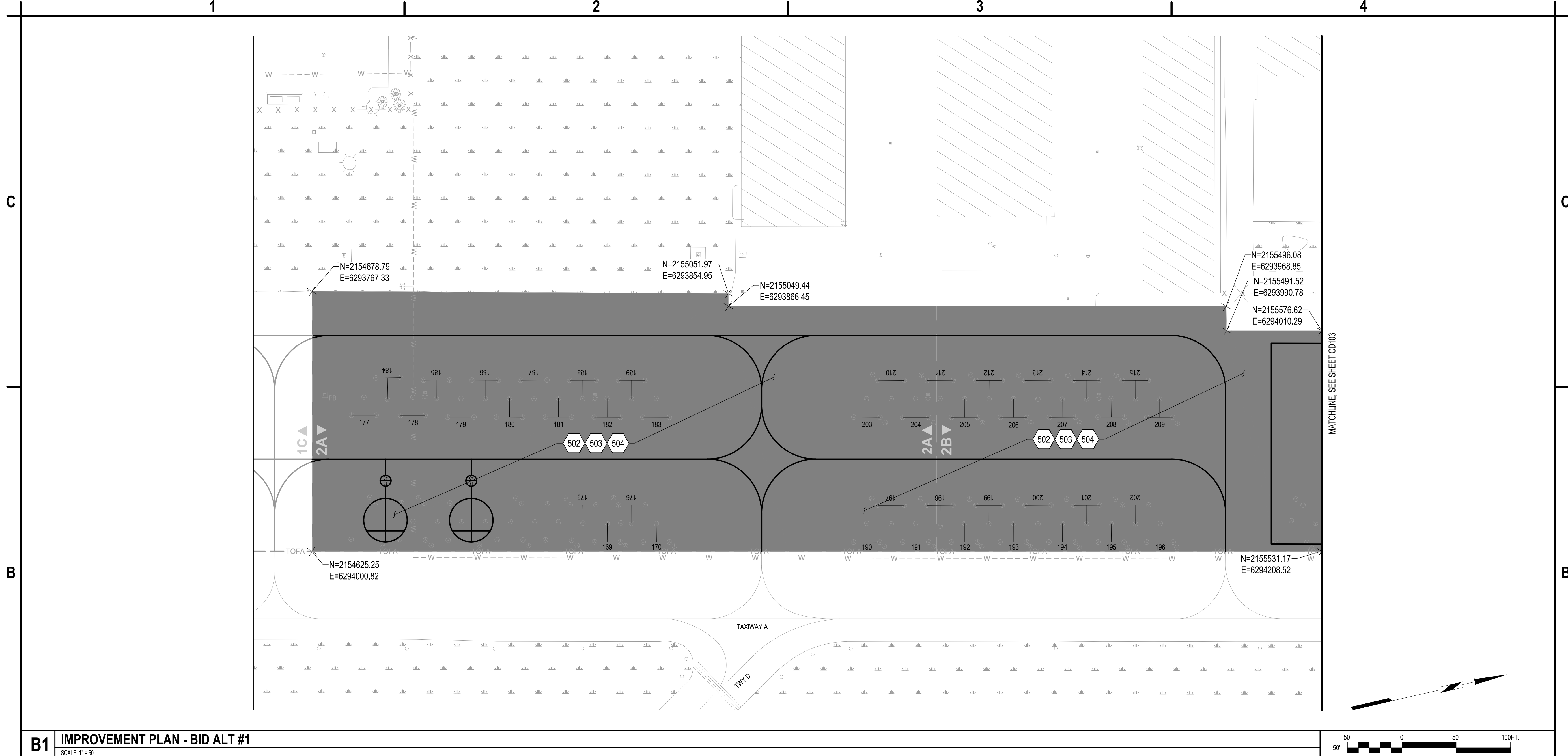
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**IMPROVEMENT PLAN -  
BASE BID**

**CS101**



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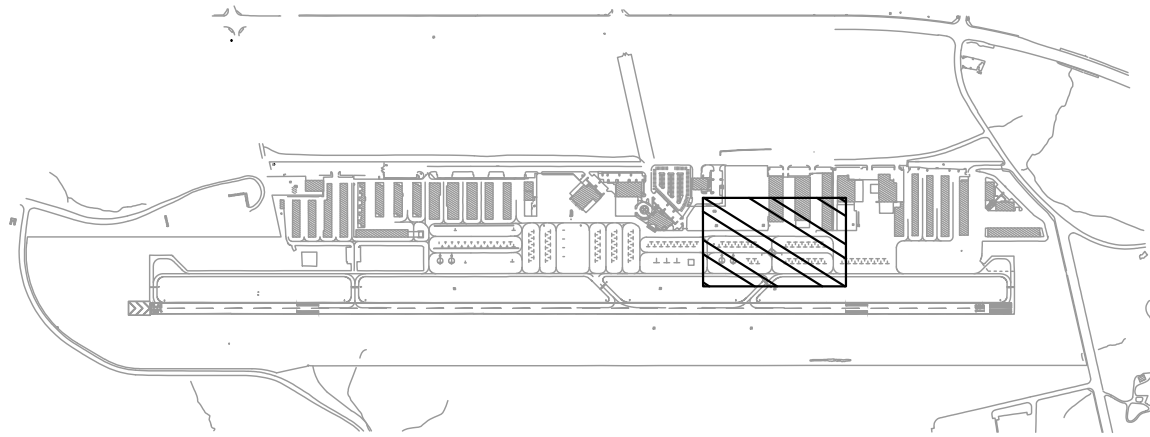
**B1** IMPROVEMENT PLAN - BID ALT #1  
SCALE: 1" = 50'

- 502 CRACK SEAL, SEE DETAIL B2, SHEET CS501
- 503 FULL DEPTH JOINT AND CRACK REPAIR, SEE DETAIL B3, SHEET CS501
- 504 EMULSIFIED ASPHALT SEAL COAT, SEE DETAIL B1, SHEET CS501



CRACK SEAL, FULL DEPTH CRACK REPAIR, AND  
EMULSIFIED ASPHALT SEAL COAT

1. FOR PAVEMENT MARKING DATA SEE SHEETS CM101-CM104



**A1** KEYED NOTES  
SCALE: NOT TO SCALE

**A2** LEGEND  
SCALE: NOT TO SCALE

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE

**A4** KEYMAP  
SCALE: NOT TO SCALE



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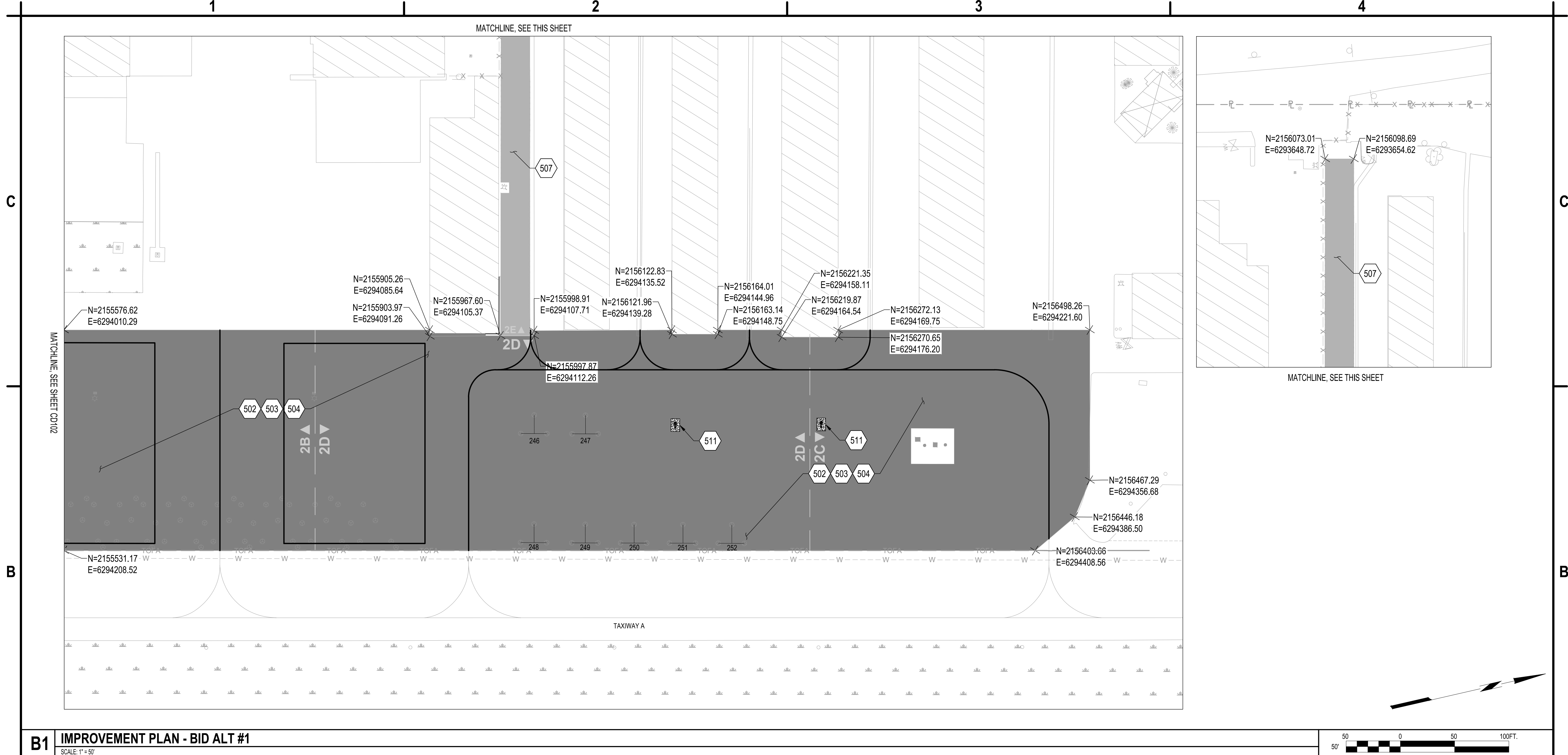
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IMPROVEMENT PLAN -  
BID ALT #1

CS102

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**B1** IMPROVEMENT PLAN - BID ALT #1  
SCALE: 1" = 50'

- 502 CRACK SEAL, SEE DETAIL B2, SHEET CS501
- 503 FULL DEPTH JOINT AND CRACK REPAIR, SEE DETAIL B3, SHEET CS501
- 504 EMULSIFIED ASPHALT SEAL COAT, SEE DETAIL B1, SHEET CS501
- 507 PROPOSED HAUL ROUTE PAVEMENT SECTION, SEE DETAIL A4, SHEET CS501
- 511 SEE SHEET CS105

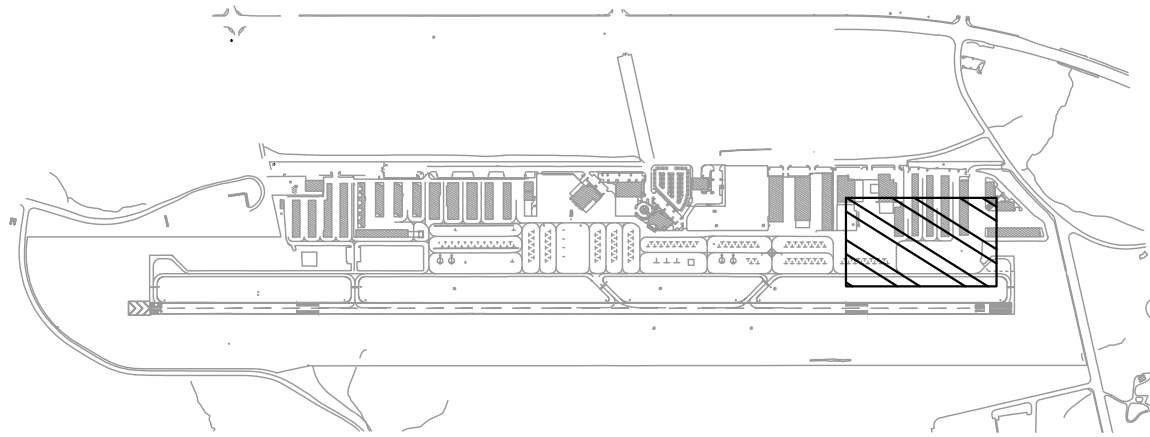


CRACK SEAL, FULL DEPTH CRACK REPAIR, AND  
EMULSIFIED ASPHALT SEAL COAT



PROPOSED HAUL ROUTE PAVEMENT SECTION

1. FOR PAVEMENT MARKING DATA SEE SHEETS CM101-CM104



**A1** KEYED NOTES  
SCALE: NOT TO SCALE

**A2** LEGEND  
SCALE: NOT TO SCALE

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE

**A4** KEYMAP  
SCALE: NOT TO SCALE



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FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION

MURRIETA, CALIFORNIA

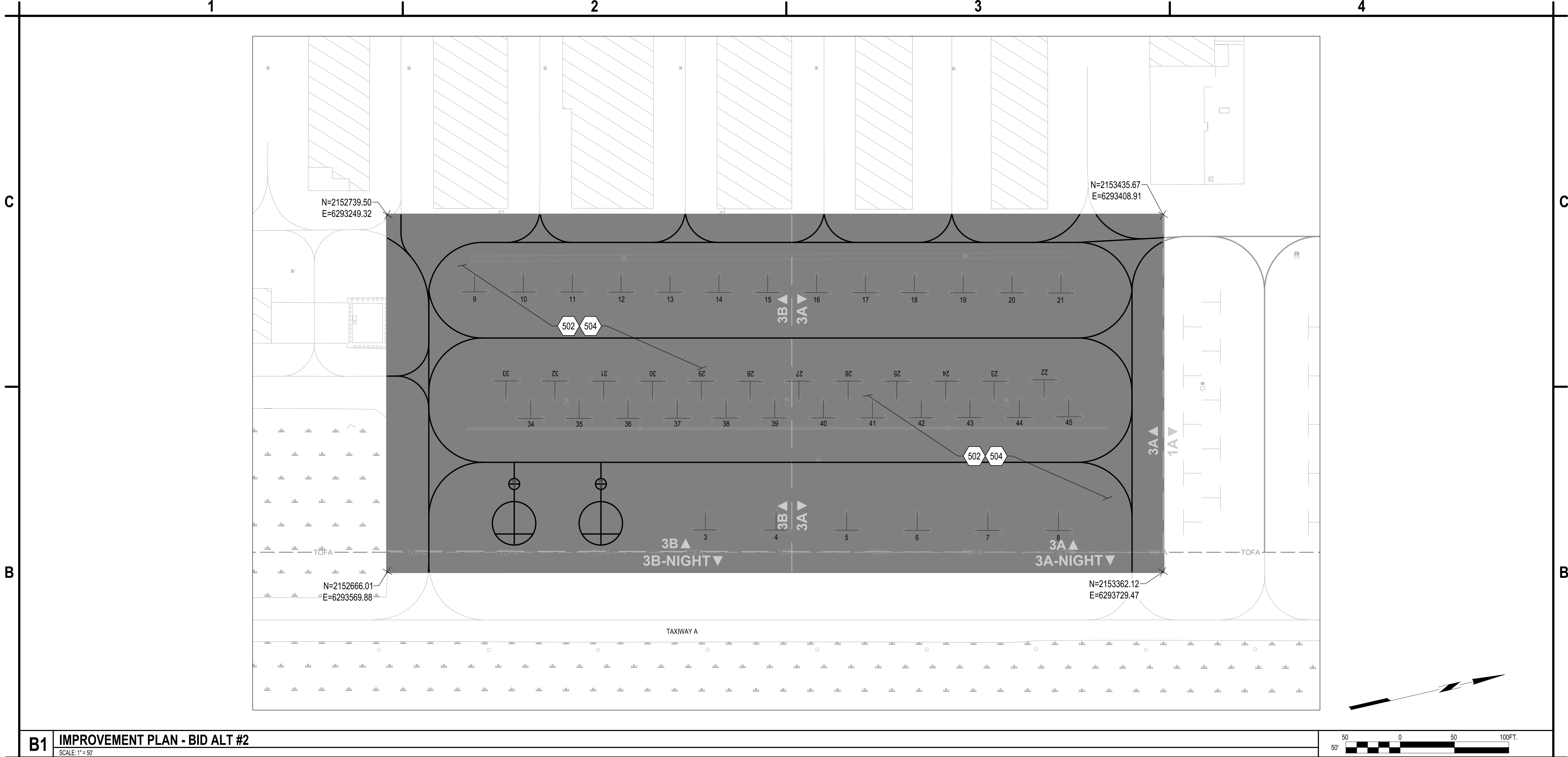
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PROJECT NO: K45.004.003		
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IMPROVEMENT PLAN -  
BID ALT #1

CS103



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**B1** IMPROVEMENT PLAN - BID ALT #2  
SCALE: 1" = 50'



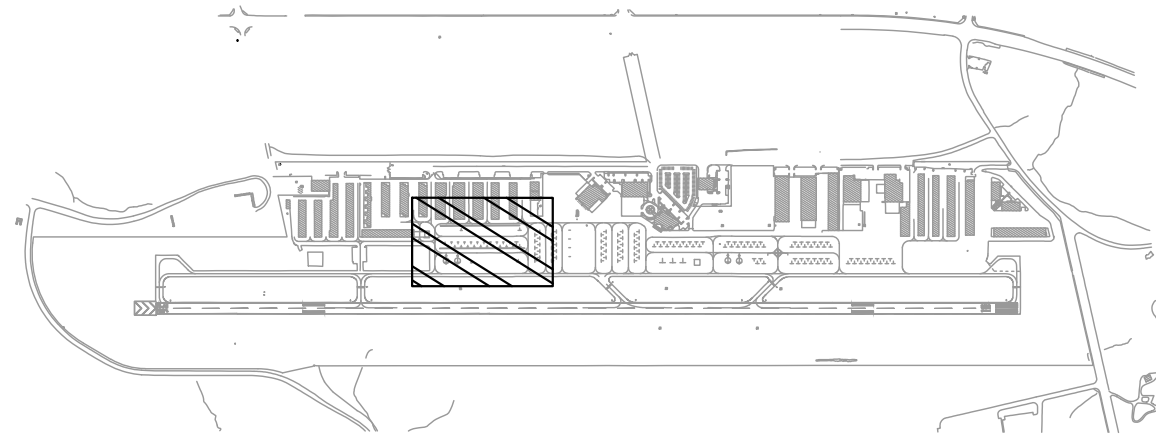
502 CRACK SEAL, SEE DETAIL B2, SHEET CS501

504 EMULSIFIED ASPHALT SEAL COAT, SEE DETAIL B1, SHEET CS501



CRACK SEAL AND EMULSIFIED ASPHALT SEAL COAT

1. FOR PAVEMENT MARKING DATA SEE SHEETS CM101-CM104



**A1** KEYED NOTES  
SCALE: NOT TO SCALE

**A2** LEGEND  
SCALE: NOT TO SCALE

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE

**A4** KEYMAP  
SCALE: NOT TO SCALE



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**FRENCH VALLEY AIRPORT APRON  
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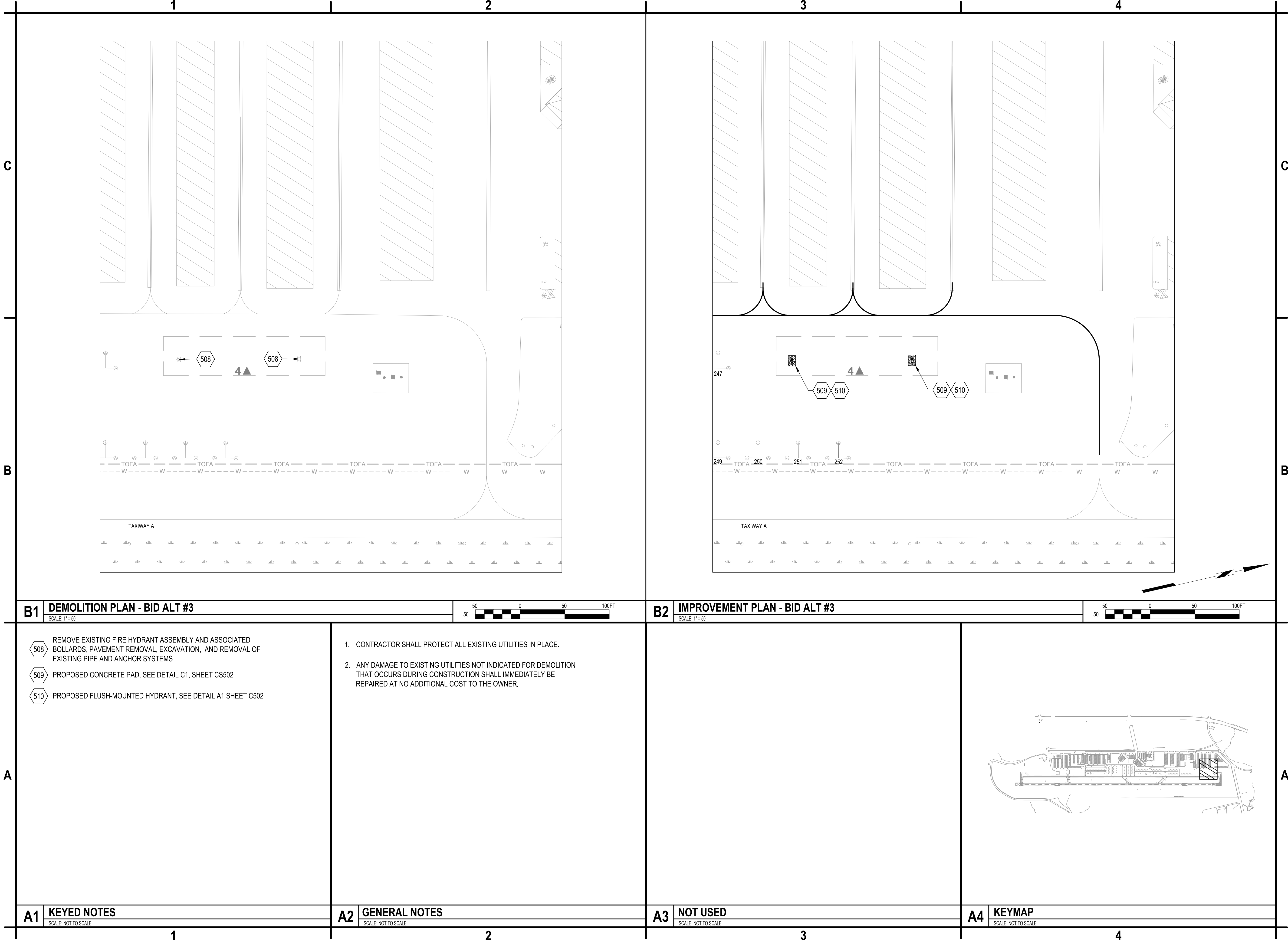
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**IMPROVEMENT PLAN -  
BID ALT #2**

**CS104**

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**FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION**

**MURRIETA, CALIFORNIA**

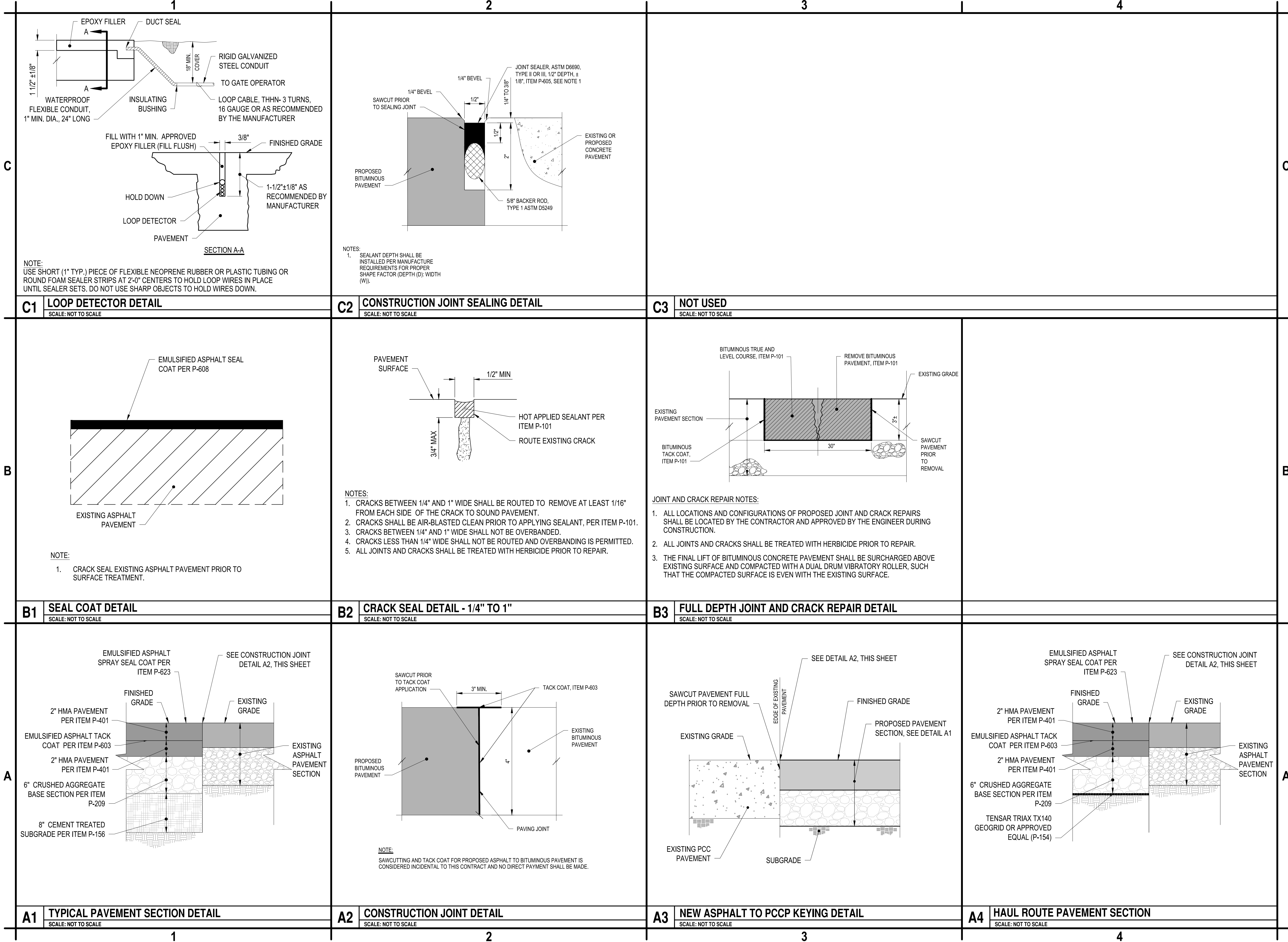
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**IMPROVEMENT PLAN -  
BID ALT #3**

**CS105**



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MURRIETA, CALIFORNIA

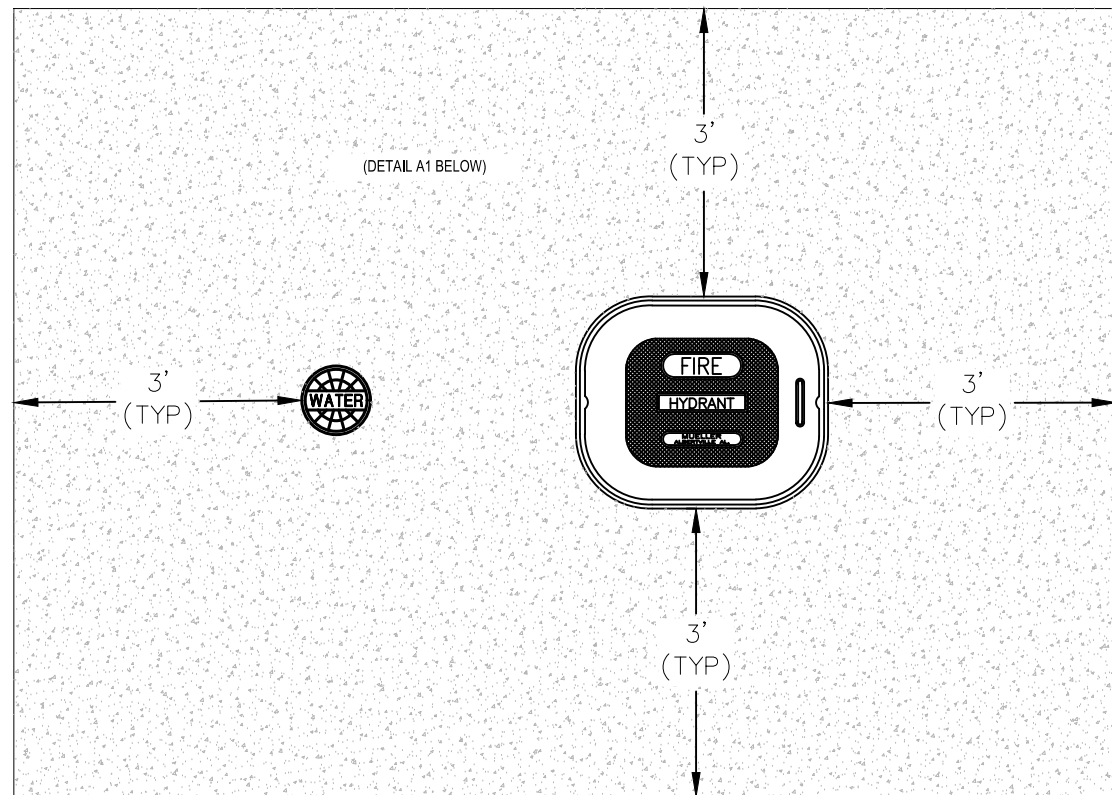
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TYPICAL SECTIONS  
AND DETAILS

CS501

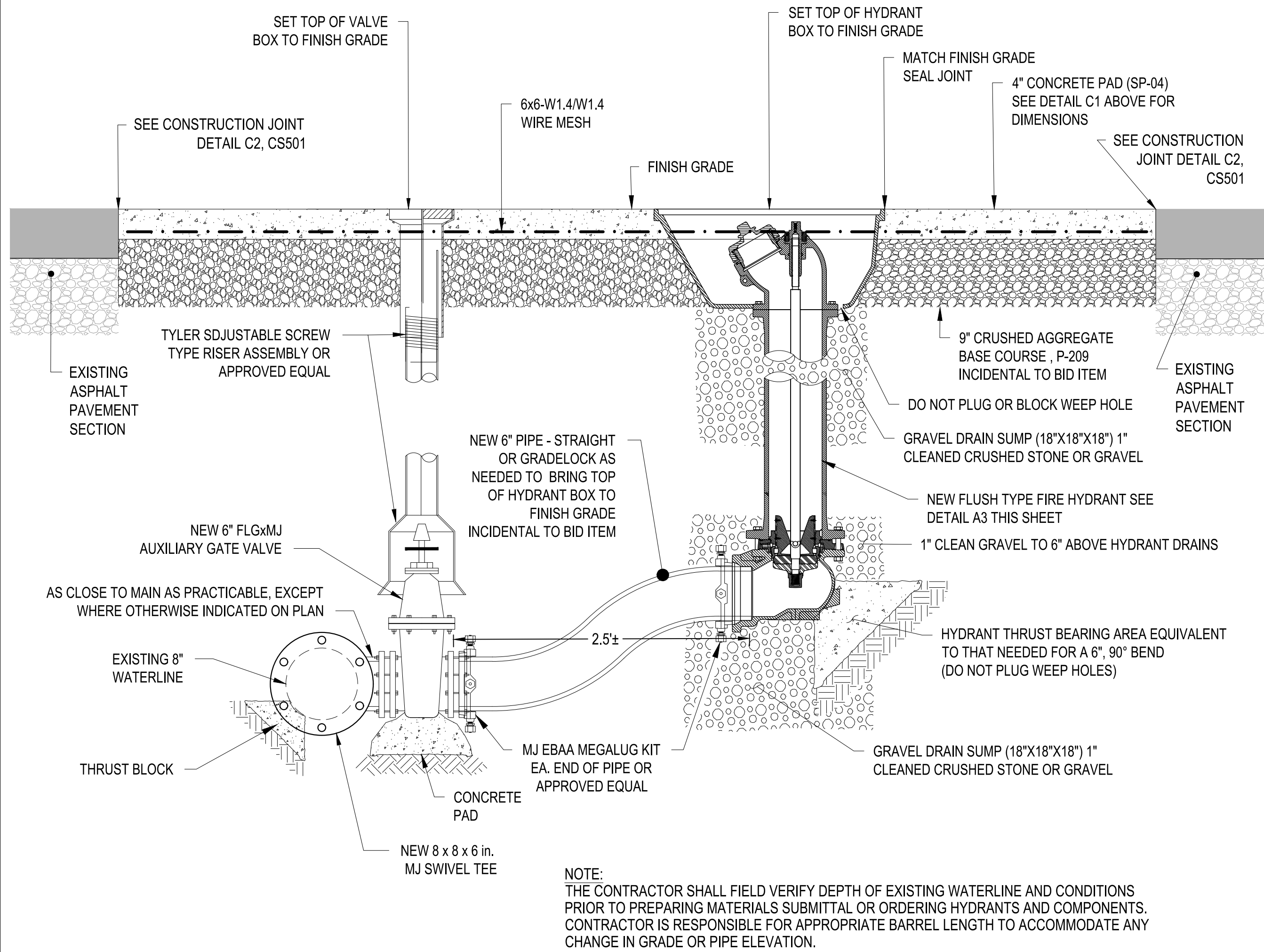


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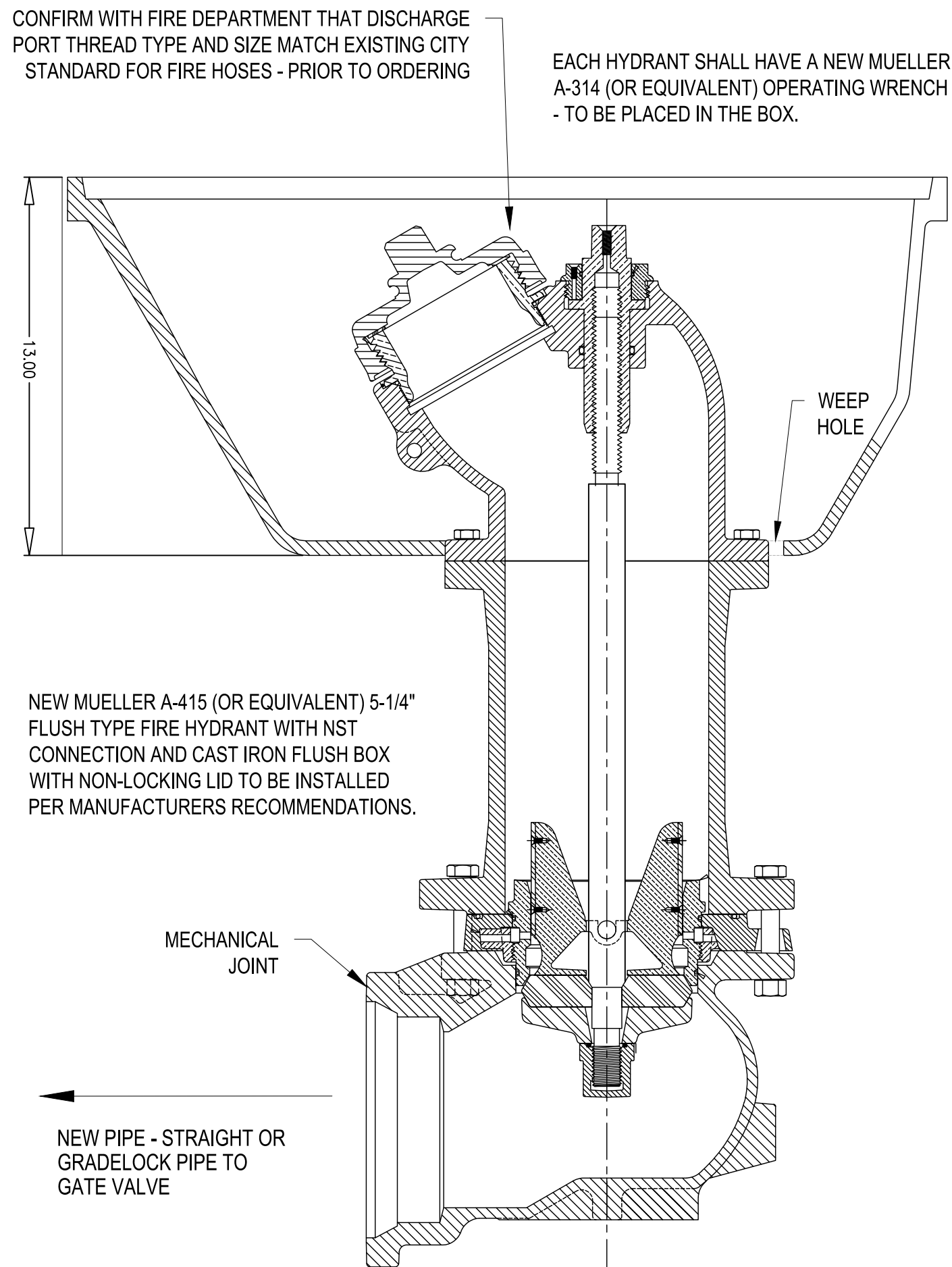


**C1** CONCRETE PAD DETAIL  
SCALE: NOT TO SCALE

**C3** NOT USED  
SCALE: NOT TO SCALE



**A1** FLUSH MOUNTED HYDRANT, VALVE AND PAD DETAIL  
SCALE: NOT TO SCALE



**A3** FLUSH TYPE FIRE HYDRANT DETAIL  
SCALE: NOT TO SCALE



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**FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION**

**MURRIETA, CALIFORNIA**

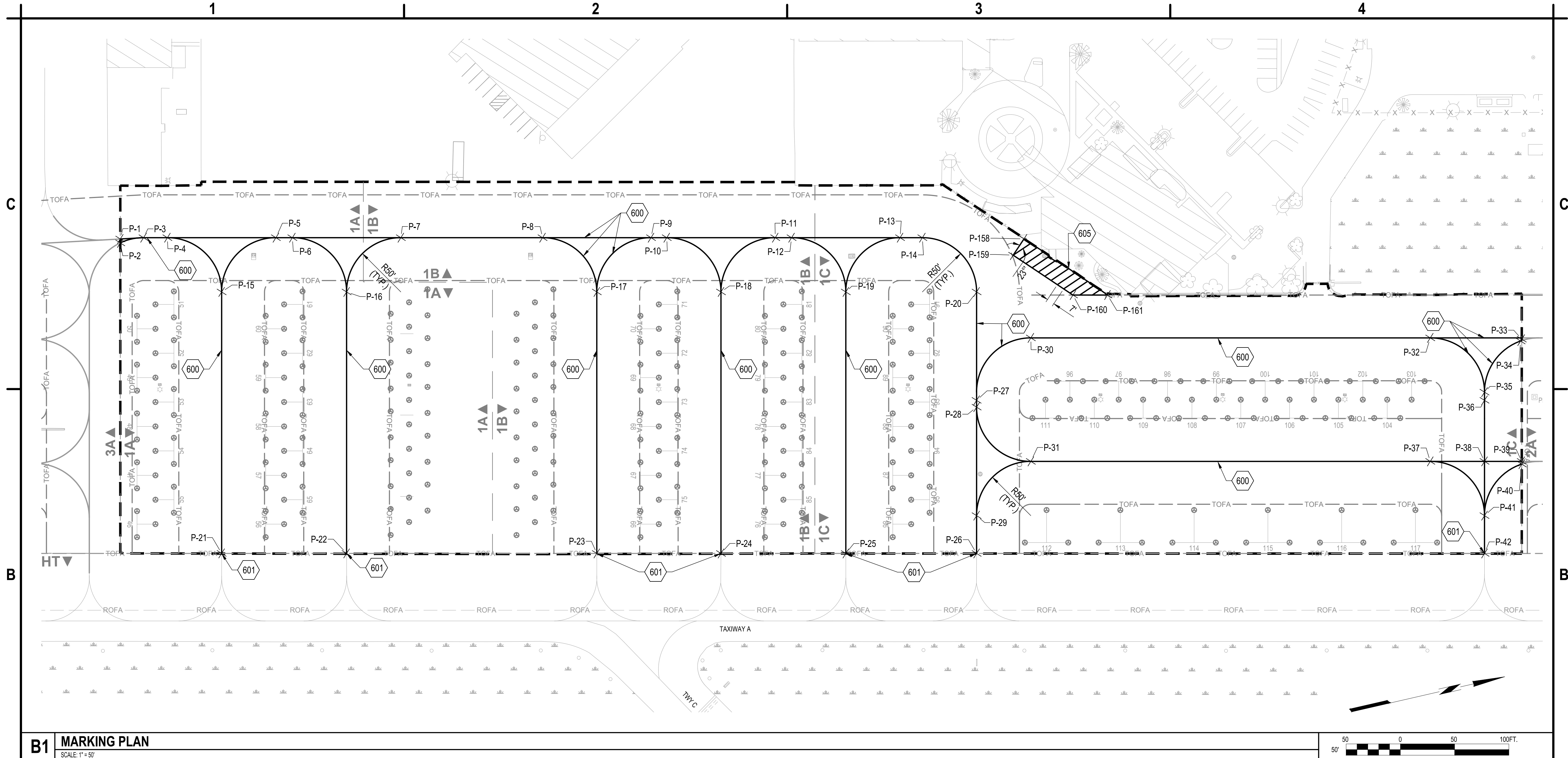
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**TYPICAL SECTIONS  
AND DETAILS**

**CS502**



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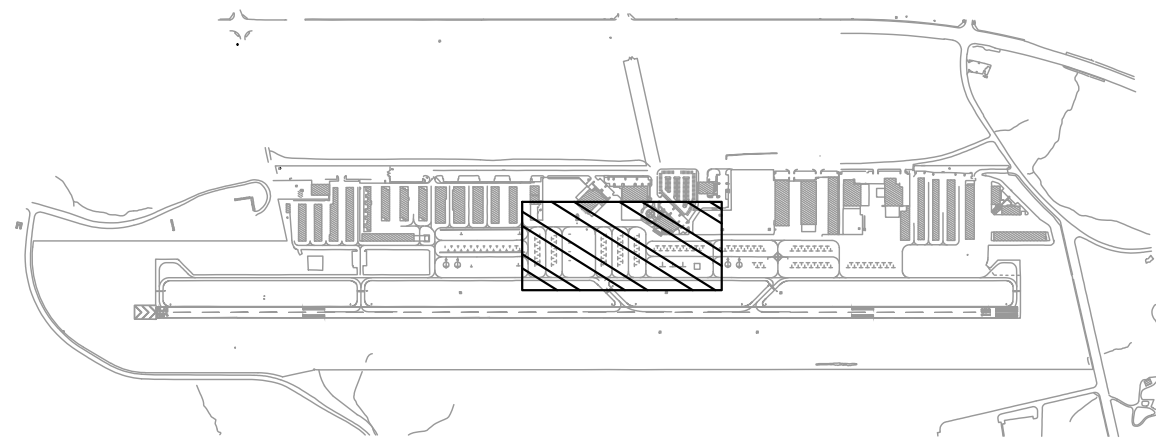


**B1** MARKING PLAN  
SCALE: 1" = 50'



- 600 TAXIWAY/TAXILANE CENTERLINE MARKING, SEE DETAIL A1, SHEET CM501, (TYP.)
- 601 MEET EXISTING TAXIWAY CENTERLINE MARKING
- 605 6" WIDE YELLOW NON-REFLECTORIZED MARKING, ITEM P-620

POINT TABLE			POINT TABLE			POINT TABLE			POINT TABLE		
POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING
1	2153430.94	6293429.49	15	2153511.10	6293497.95	29	2154143.29	6293854.43	158	2154242.87	6293615.58
2	2153430.13	6293433.04	16	2153623.37	6293523.69	30	2154228.63	6293705.91	159	2154229.79	6293627.94
3	2153452.10	6293433.12	17	2153848.13	6293575.22	31	2154203.20	6293816.87	160	2154275.29	6293676.09
4	2153473.54	6293438.04	18	2153959.72	6293600.80	32	2154587.48	6293788.19	161	2154306.31	6293683.20
5	2153571.01	6293460.39	19	2154071.87	6293626.51	33	2154669.42	6293808.19			
6	2153585.80	6293463.78	20	2154189.36	6293653.45	34	2154668.00	6293809.60			
7	2153683.28	6293486.12	21	2153457.25	6293732.83	35	2154625.04	6293848.10			
8	2153810.57	6293515.31	22	2153569.51	6293758.59	36	2154623.36	6293855.46			
9	2153908.04	6293537.66	23	2153794.27	6293810.16	37	2154562.04	6293899.14			
10	2153922.16	6293540.89	24	2153905.85	6293835.76	38	2154610.78	6293910.32			
11	2154019.63	6293563.24	25	2154018.00	6293861.49	39	2154644.24	6293917.99			
12	2154034.31	6293566.61	26	2154135.50	6293888.39	40	2154643.68	6293920.44			
13	2154131.78	6293588.95	27	2154167.04	6293750.84	41	2154599.60	6293959.05			
14	2154151.80	6293593.54	28	2154165.63	6293756.96	42	2154591.82	6293993.02			



**A1** KEYED NOTES  
SCALE: NOT TO SCALE

**A2** POINT TABLES  
SCALE: NOT TO SCALE

**A4** KEYMAP  
SCALE: NOT TO SCALE



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FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION

MURRIETA, CALIFORNIA

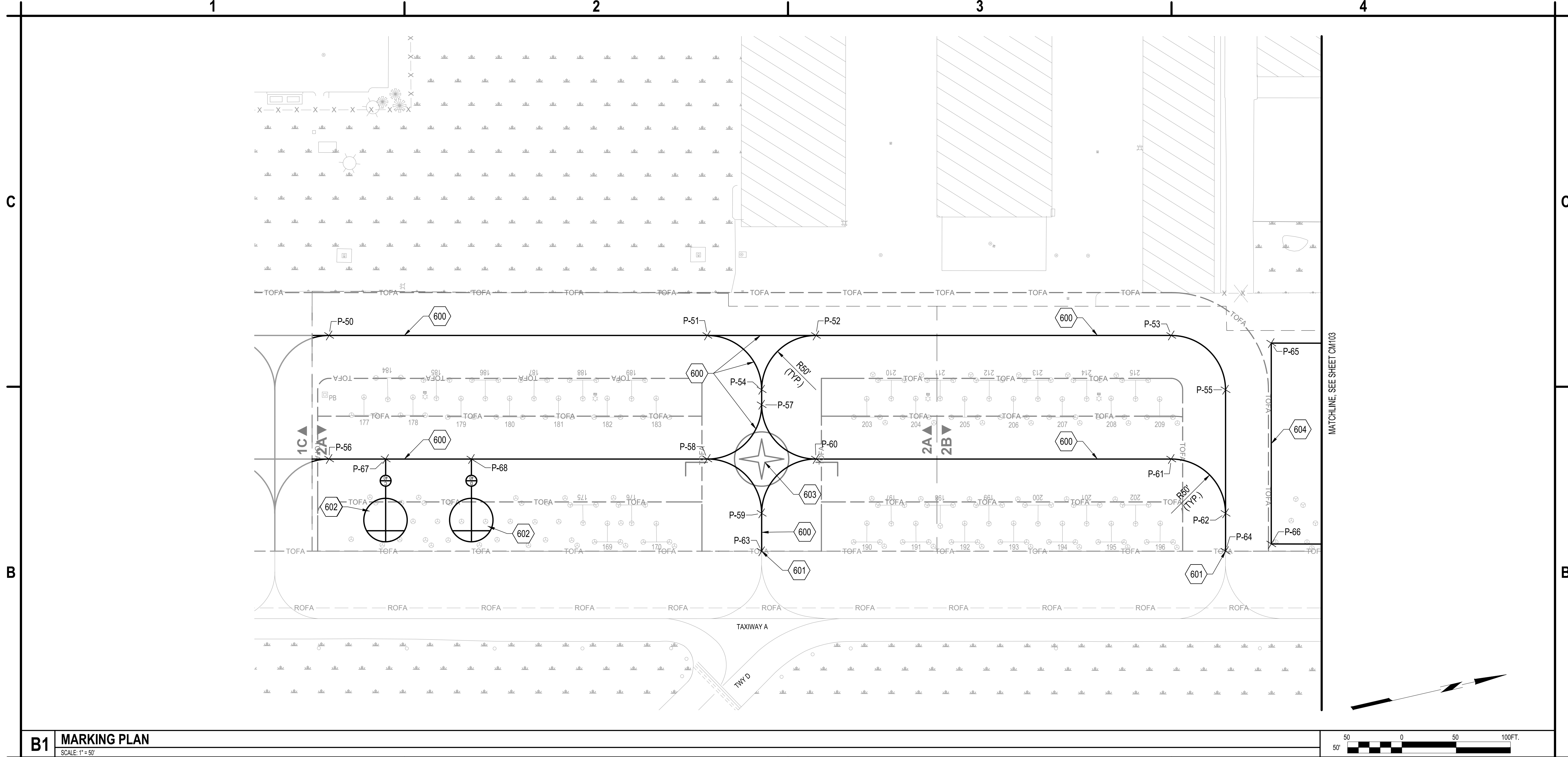
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MARKING PLAN -  
BASE BID

CM101

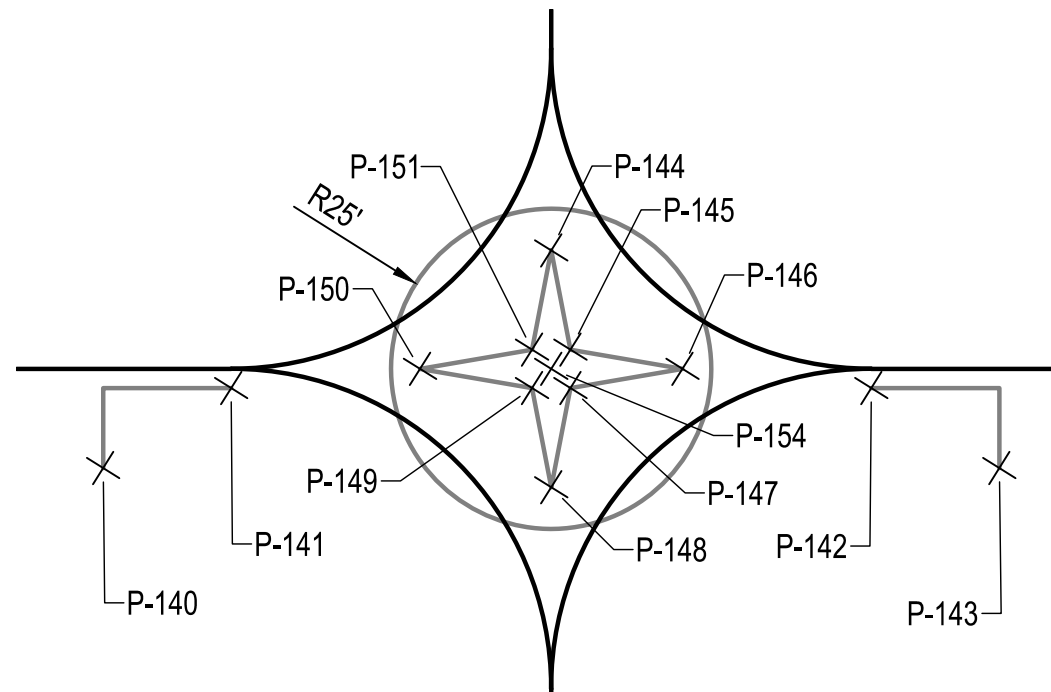


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**B1** MARKING PLAN  
SCALE: 1" = 50'

- 600 TAXIWAY/TAXILANE CENTERLINE MARKING, SEE DETAIL A1, SHEET CM501, (TYP.)
- 601 MEET EXISTING TAXIWAY CENTERLINE MARKING
- 602 HELICOPTER PARKING MARKING, SEE DETAIL A2, SHEET CM501
- 603 AIR TRAFFIC PATTERN MARKING, 6" WHITE NON-REFLECTORIZED, ITEM P-620, SEE DETAIL A2, THIS SHEET
- 604 JET PARKING MARKING, 6" WIDE YELLOW NON-REFLECTORIZED, ITEM P-620

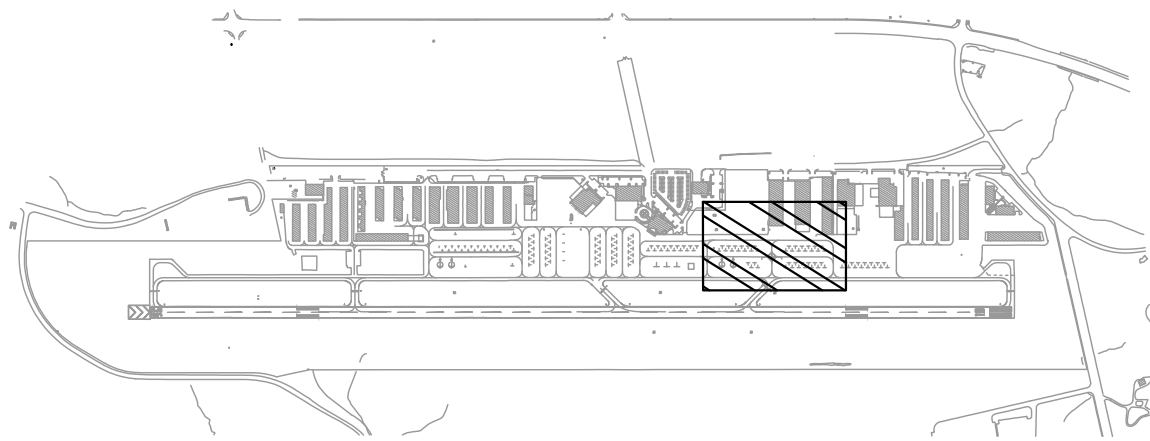


**A2** AIR TRAFFIC PATTERN MARKING DETAIL  
SCALE: NOT TO SCALE

POINT TABLE		
POINT #	NORTHING	EASTING
50	2154684.95	6293810.53
51	2155024.41	6293888.36
52	2155121.88	6293910.71
53	2155440.76	6293983.82
54	2155061.97	6293948.27
55	2155478.32	6294043.73
56	2154859.51	6293921.49
57	2155058.88	6293961.75
58	2154998.97	6293999.32
59	2155036.54	6294059.23
60	2155096.44	6294021.66
61	2155415.32	6294094.77
62	2155452.88	6294154.68
63	2155028.72	6294093.33
64	2155445.09	6294188.68
65	2155528.95	6294011.25

**A3** POINT TABLES  
SCALE: NOT TO SCALE

POINT TABLE		
POINT #	NORTHING	EASTING
66	2155487.61	6294191.57
67	2154710.26	6293933.12
68	2154787.24	6293950.77
140	2154976.02	6294009.96
141	2154998.30	6294002.24
142	2155095.77	6294024.59
143	2155112.48	6294041.24
144	2155051.84	6293992.46
145	2155051.30	6294008.24
146	2155067.69	6294015.07
147	2155049.96	6294014.08
148	2155043.57	6294028.52
149	2155044.11	6294012.74
150	2155027.73	6294005.91
151	2155045.46	6294006.90
154	2155047.71	6294010.49



**A4** KEYMAP  
SCALE: NOT TO SCALE



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**FRENCH VALLEY AIRPORT APRON  
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**MURRIETA, CALIFORNIA**

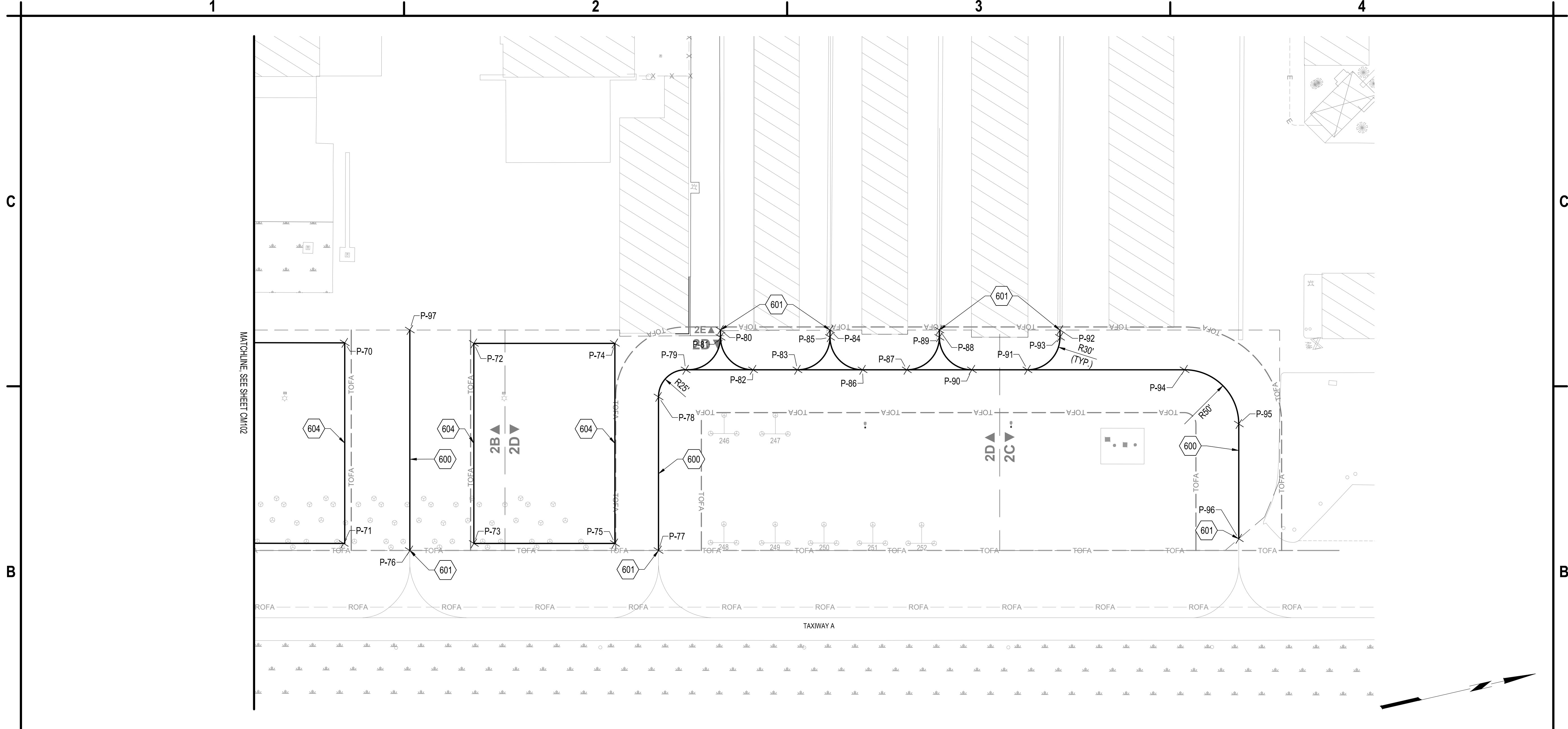
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**MARKING PLAN - BID  
ALT #1**

**CM102**



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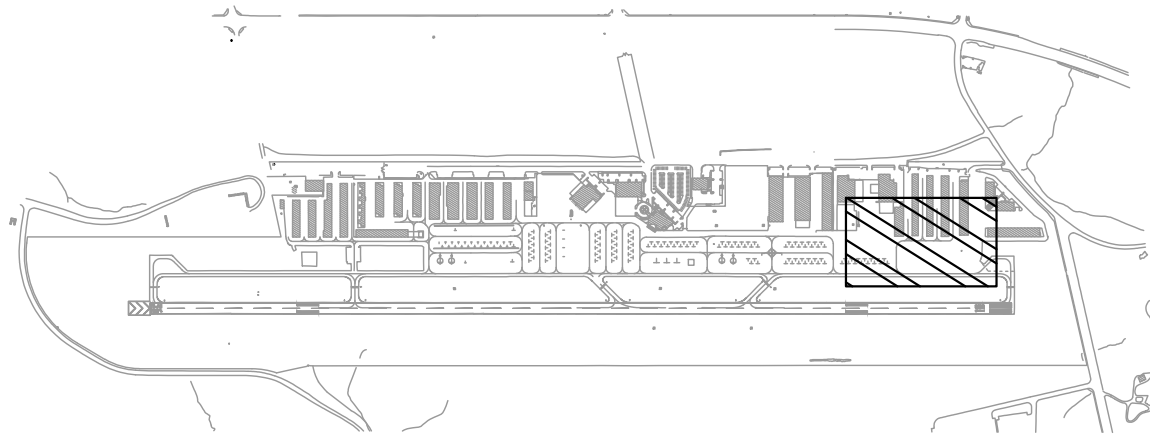
**B1** MARKING PLAN  
SCALE: 1" = 50'



- 600 TAXIWAY/TAXILANE CENTERLINE MARKING, SEE DETAIL A1, SHEET CM501, (TYP.)
- 601 MEET EXISTING TAXIWAY CENTERLINE MARKING
- 604 JET PARKING MARKING, 6" WIDE YELLOW NON-REFLECTORIZED, ITEM P-620

POINT TABLE		
POINT #	NORTHING	EASTING
70	2155655.61	6294040.55
71	2155613.29	6294220.64
72	2155771.49	6294067.61
73	2155730.26	6294247.45
74	2155898.20	6294096.66
75	2155856.97	6294276.50
76	2155671.29	6294240.65
77	2155894.73	6294291.90
78	2155826.39	6294153.77
79	2155856.35	6294134.99
80	2155995.85	6294106.41
81	2155894.36	6294112.93
82	2156016.89	6294148.87
83	2156058.79	6294158.02

POINT TABLE		
POINT #	NORTHING	EASTING
84	2156094.24	6294128.96
85	2156092.74	6294135.48
86	2156115.28	6294171.43
87	2156155.05	6294180.55
88	2156192.49	6294151.49
89	2156190.99	6294158.01
90	2156213.53	6294193.96
91	2156263.44	6294205.40
92	2156300.88	6294176.34
93	2156299.39	6294182.86
94	2156404.60	6294237.76
95	2156442.16	6294297.67
96	2156418.50	6294400.86
97	2155716.74	6294042.42



**A1** KEYED NOTES  
SCALE: NOT TO SCALE

**A2** PONT TABLE  
SCALE: NOT TO SCALE

**A3** NOT USED  
SCALE: NOT TO SCALE

**A4** KEYMAP  
SCALE: NOT TO SCALE



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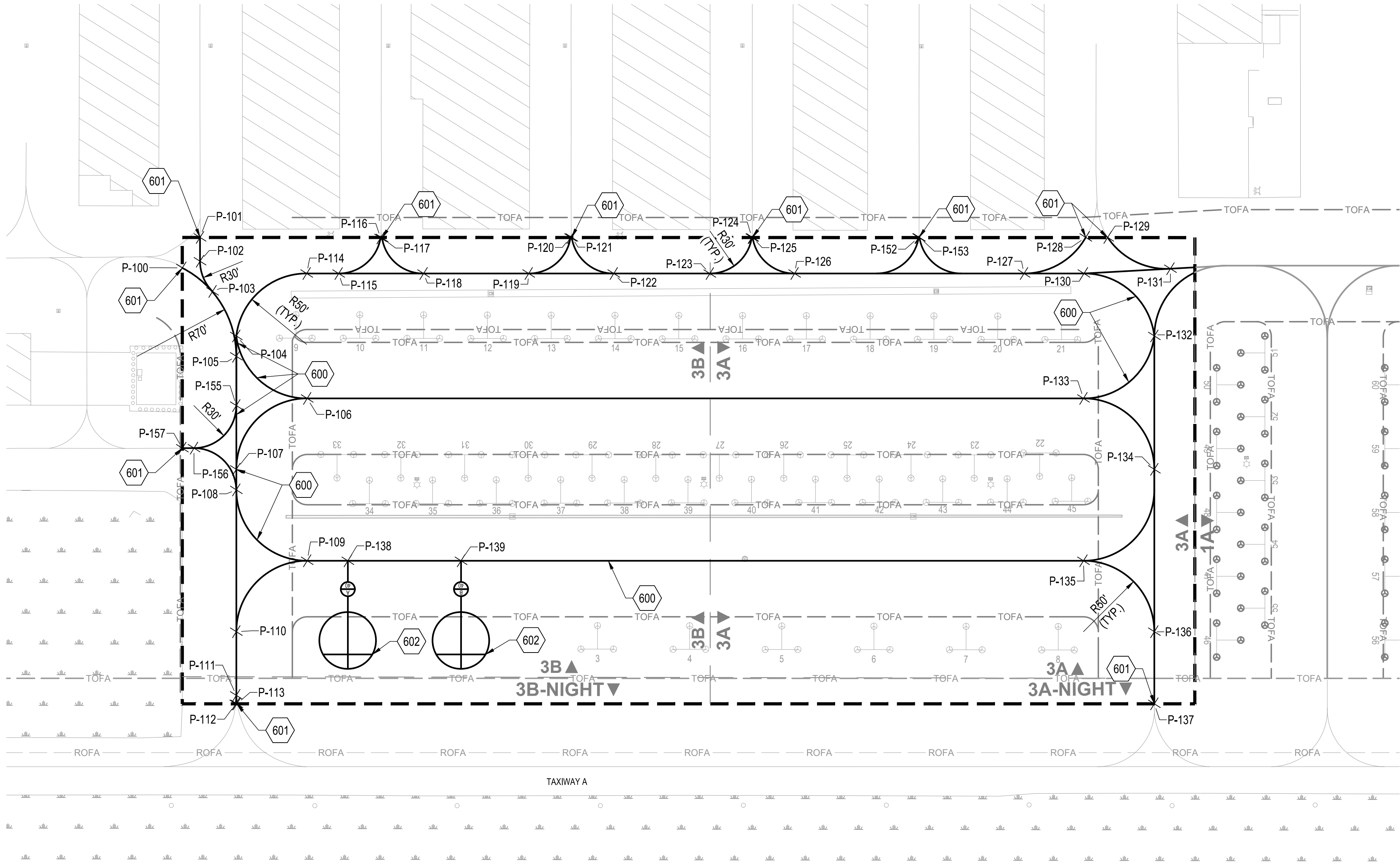
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**MARKING PLAN - BID  
ALT #1**

**CM103**



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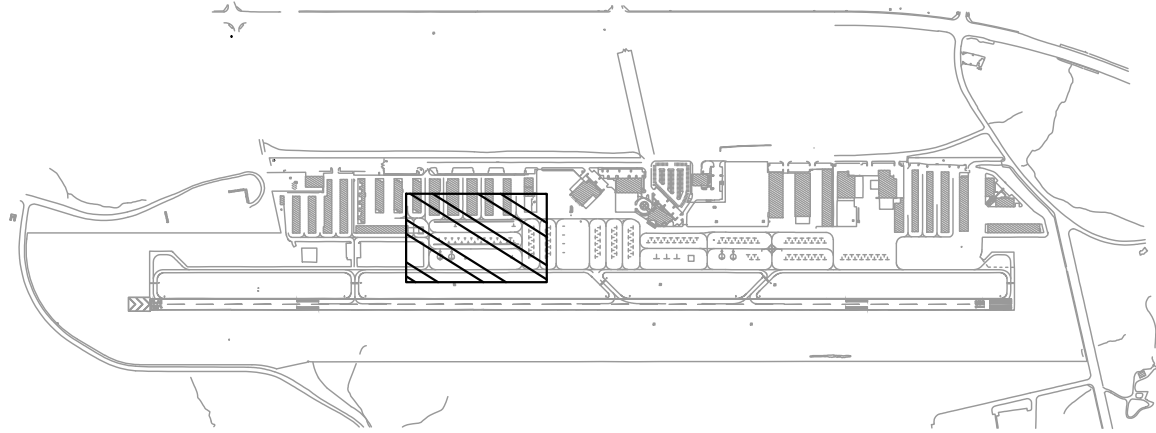
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- 601 MEET EXISTING TAXIWAY CENTERLINE MARKING
- 602 HELICOPTER PARKING MARKING, SEE DETAIL A2, SHEET CM501

POINT TABLE		
POINT NO.	NORTHING	EASTING
100	2,152,734.70	6,293,270.30
101	2,152,751.69	6,293,252.12
102	2,152,747.94	6,293,268.48
103	2,152,751.81	6,293,291.19
104	2,152,761.11	6,293,325.56
105	2,152,757.91	6,293,339.54
106	2,152,800.00	6,293,379.66
107	2,152,740.10	6,293,417.22
108	2,152,736.86	6,293,431.33
109	2,152,774.42	6,293,491.24
110	2,152,714.51	6,293,528.80
111	2,152,704.48	6,293,572.55

POINT TABLE		
POINT NO.	NORTHING	EASTING
112	2,152,702.79	6,293,578.31
113	2,152,703.50	6,293,578.47
114	2,152,819.34	6,293,293.72
115	2,152,841.32	6,293,298.77
116	2,152,875.78	6,293,280.90
117	2,152,876.76	6,293,281.15
118	2,152,899.71	6,293,312.14
119	2,152,971.99	6,293,328.71
120	2,153,006.42	6,293,310.50
121	2,153,007.27	6,293,310.70
122	2,153,030.47	6,293,342.12
123	2,153,096.52	6,293,357.28

POINT TABLE		
POINT NO.	NORTHING	EASTING
124	2,153,131.08	6,293,339.17
125	2,153,131.58	6,293,339.21
126	2,153,154.80	6,293,370.63
127	2,153,312.52	6,293,406.79
128	2,153,360.66	6,293,391.72
129	2,153,375.71	6,293,395.17
130	2,153,353.74	6,293,416.24
131	2,153,413.95	6,293,426.57
132	2,153,392.28	6,293,470.26
133	2,153,333.71	6,293,502.02
134	2,153,371.27	6,293,561.93
135	2,153,308.12	6,293,613.60

POINT TABLE		
POINT NO.	NORTHING	EASTING
136	2,153,345.69	6,293,673.51
137	2,153,334.32	6,293,723.10
138	2,152,802.38	6,293,497.65
139	2,152,880.19	6,293,515.49
152	2,153,245.78	6,293,365.39
153	2,153,246.27	6,293,365.51
155	2,152,750.14	6,293,373.40
156	2,152,714.36	6,293,395.97
157	2,152,706.30	6,293,394.17



# FRENCH VALLEY AIRPORT APRON PAVEMENT REHABILITATION

MURRIETA, CALIFORNIA

MARK	DATE	DESCRIPTION
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MARKING PLAN - BID ALT #2

CM104



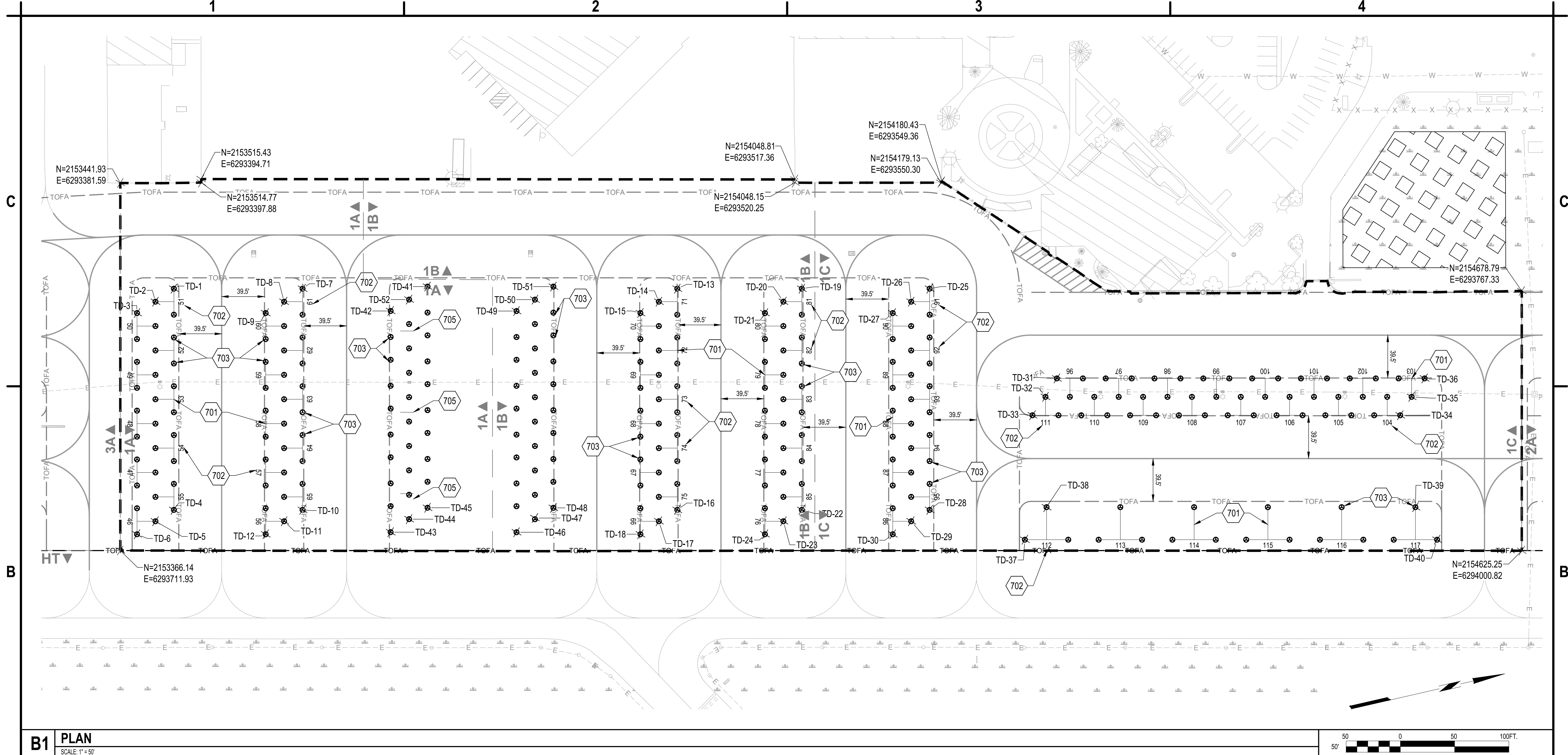
C&S Engineers, Inc.  
2355 Northside Drive  
Suite 350  
San Diego, California 92108  
Phone: 619-296-9373  
Fax: 619-296-0344  
www.cscos.com



NOT FOR CONSTRUCTION



Oct 24, 2024 - 9:22am  
F:\Projects\K45 - County of Riverside\K45.004.003 - FTO apron\Design\CADD\sheet files\K45.004.003\_Tie-Down Plan.dwg



**B1** PLAN  
SCALE: 1" = 50'

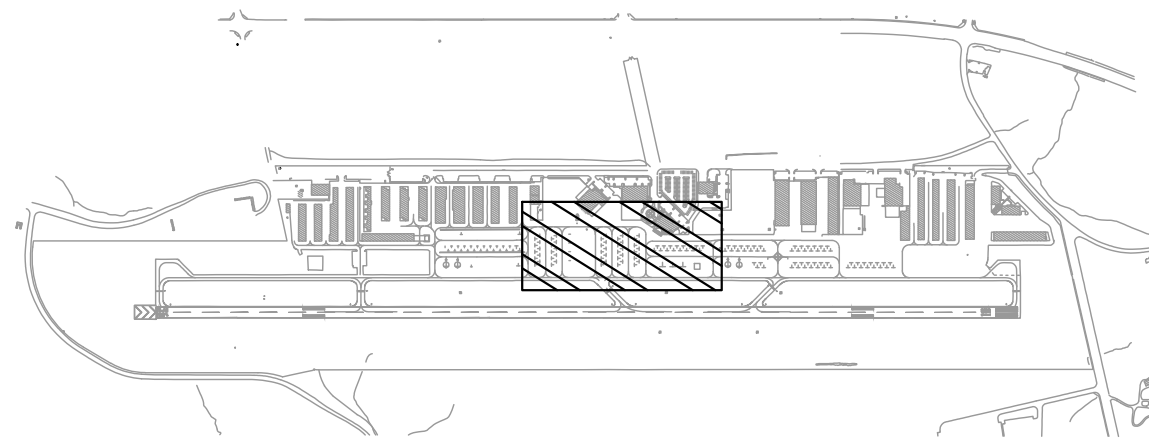
- 701 TIE-DOWN MARKING (TYP.), SEE DETAIL A3 AND B2, SHEET CM501
- 702 TIE DOWN NUMERAL MARKING (TYP.), SEE DETAIL B1, SHEET CM501
- 703 CONSTRUCT TIE-DOWN ANCHOR (TYP. OF 276), SEE DETAIL B3, SHEET CM501, ITEM L-126
- 704 JET PARKING MARKING, 12' LONG 6" WIDE YELLOW NON-REFLECTORIZED, ITEM P-620

POINT TABLE		
PNT #	NORTHING	EASTING
1	2153468.33	6293487.63
2	2153449.08	6293495.53
3	2153430.16	6293501.96
4	2153422.74	6293686.47
5	2153403.82	6293692.90
6	2153384.57	6293700.80
7	2153583.92	6293514.13
8	2153564.66	6293522.03
9	2153545.75	6293528.46
10	2153538.33	6293712.97
11	2153519.41	6293719.41
12	2153500.16	6293727.30
13	2153920.61	6293591.32
14	2153901.36	6293599.22

POINT TABLE		
PNT #	NORTHING	EASTING
15	2153882.44	6293605.66
16	2153875.02	6293790.16
17	2153856.10	6293796.60
18	2153836.85	6293804.50
19	2154032.48	6293616.97
20	2154013.23	6293624.87
21	2153994.31	6293631.30
22	2153986.89	6293815.81
23	2153967.97	6293822.25
24	2153948.72	6293830.14
25	2154147.30	6293643.30
26	2154128.05	6293651.19
27	2154109.13	6293657.63
28	2154101.71	6293842.14

POINT TABLE		
PNT #	NORTHING	EASTING
29	2154082.79	6293848.57
30	2154063.54	6293856.47
31	2154243.11	6293750.18
32	2154229.07	6293764.41
33	2154213.58	6293778.30
34	2154544.01	6293854.05
35	2154558.04	6293839.83
36	2154573.53	6293825.94
37	2154181.11	6293888.58
38	2154207.31	6293863.81
39	2154538.71	6293939.79
40	2154551.50	6293973.50
41	2153696.65	6293537.98
42	2153658.48	6293552.31

POINT TABLE		
PNT #	NORTHING	EASTING
43	2153612.89	6293751.15
44	2153632.14	6293743.26
45	2153651.06	6293736.82
46	2153725.94	6293777.14
47	2153745.41	6293768.15
48	2153764.11	6293762.81
49	2153771.53	6293578.30
50	2153790.45	6293571.87
51	2153809.70	6293563.97
52	2153677.40	6293545.88



**A1** KEYED NOTES  
SCALE: NOT TO SCALE

**A2** POINT TABLES  
SCALE: NOT TO SCALE

**A4** KEYMAP  
SCALE: NOT TO SCALE



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**FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION**

**MURRIETA, CALIFORNIA**

MARK	DATE	DESCRIPTION
REVISIONS		
PROJECT NO: K45.004.003		
DATE: OCTOBER 2024		
DRAWN BY: N. EASLEY		
DESIGNED BY: N. EASLEY		
CHECKED BY: C. CALATRELLO		
CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.		

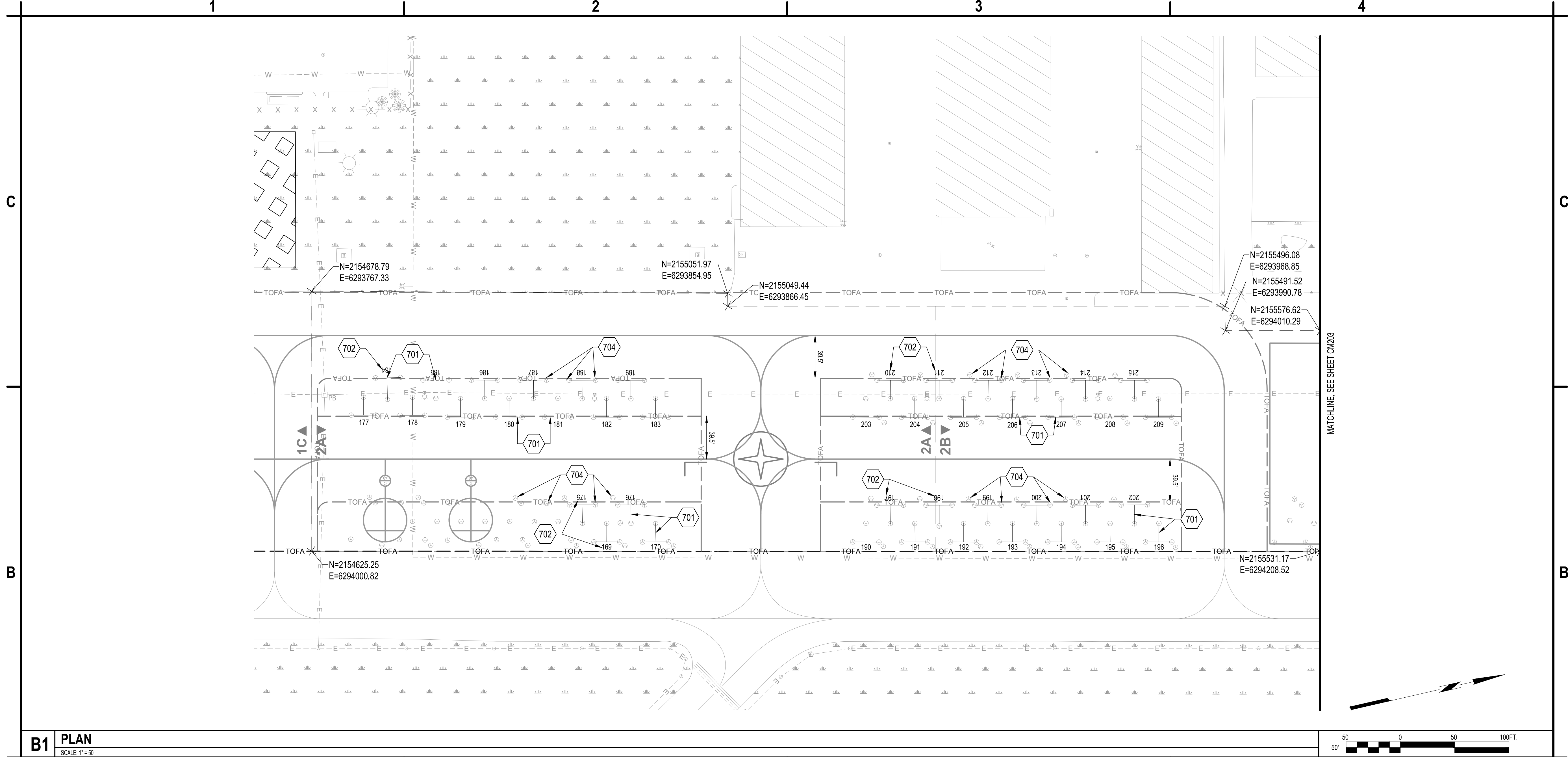
**TIE DOWN PLAN -  
BASE BID**

**CM201**

**NOT FOR CONSTRUCTION**

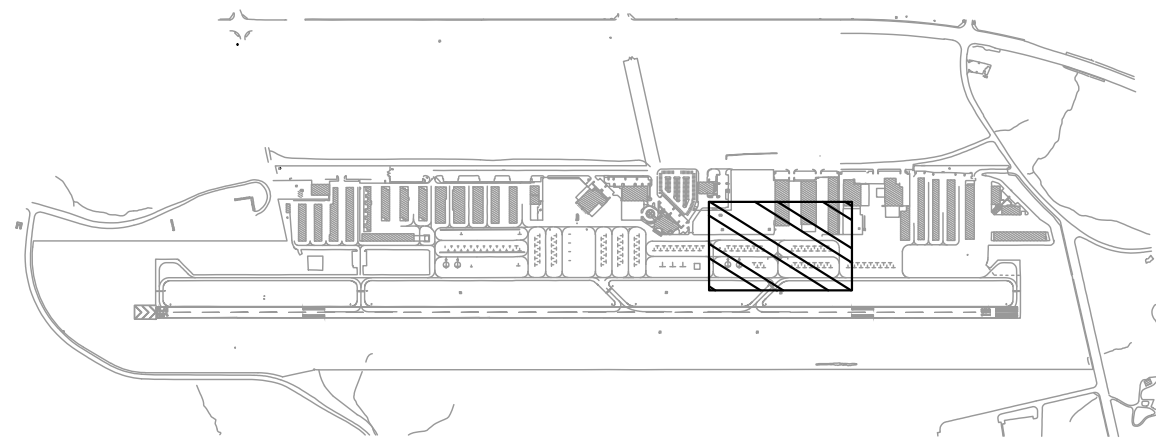


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**B1** PLAN  
SCALE: 1" = 50'

- 701 TIE-DOWN MARKING (TYP.), SEE DETAIL A3 AND B2, SHEET CM501
- 702 TIE DOWN NUMERAL MARKING (TYP.), SEE DETAIL B1, SHEET CM501
- 704 EXISTING TIE-DOWN ANCHOR (TYP.), PROTECT IN PLACE



**A1** KEYED NOTES  
SCALE: NOT TO SCALE

**A2** LEGEND  
SCALE: NOT TO SCALE

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE

**A4** KEYMAP  
SCALE: NOT TO SCALE



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**FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION**

**MURRIETA, CALIFORNIA**

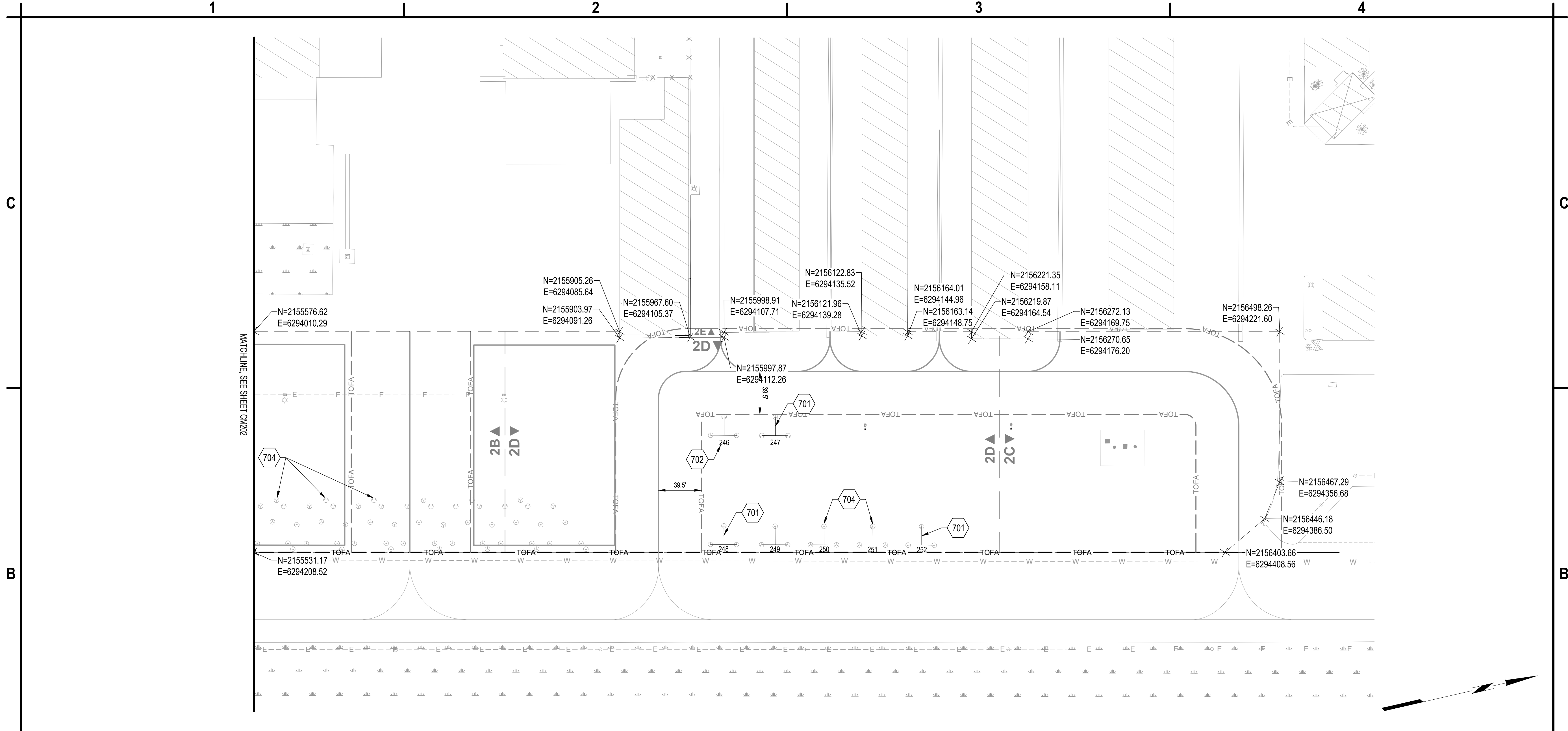
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**TIE DOWN PLAN - BID  
ALT #1**

**CM202**

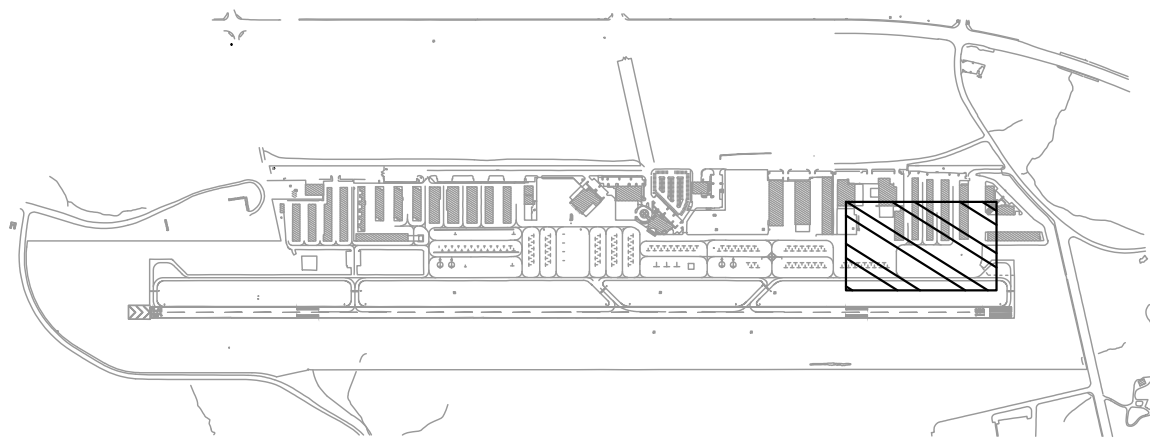
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**B1 PLAN**  
SCALE: 1" = 50'

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**A1 KEYED NOTES**  
SCALE: NOT TO SCALE

**A2 LEGEND**  
SCALE: NOT TO SCALE

**A3 GENERAL NOTES**  
SCALE: NOT TO SCALE

**A4 KEYMAP**  
SCALE: NOT TO SCALE



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**FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION**

**MURRIETA, CALIFORNIA**

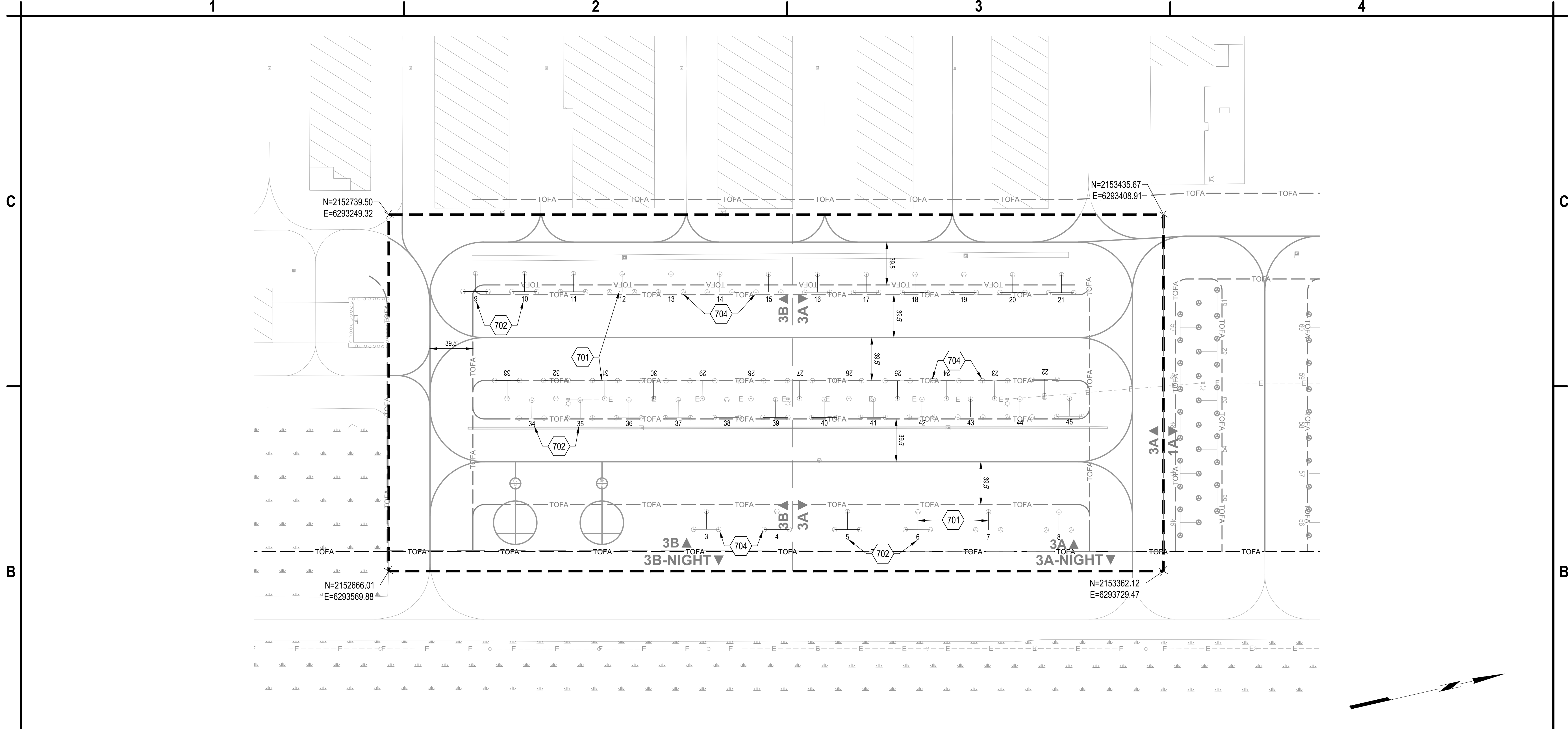
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**TIE DOWN PLAN - BID  
ALT #1**

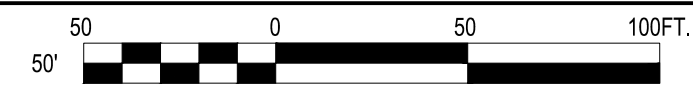
**CM203**



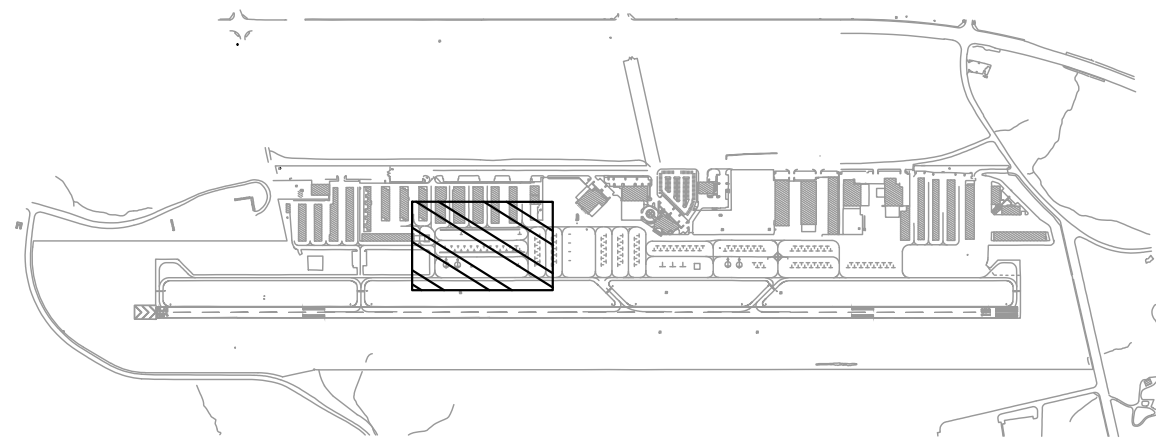
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SCALE: 1" = 50'



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**A1** KEYED NOTES  
SCALE: NOT TO SCALE

**A2** LEGEND  
SCALE: NOT TO SCALE

**A3** GENERAL NOTES  
SCALE: NOT TO SCALE

**A4** KEYMAP  
SCALE: NOT TO SCALE



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# FRENCH VALLEY AIRPORT APRON PAVEMENT REHABILITATION

MURRIETA, CALIFORNIA

MARK	DATE	DESCRIPTION
REVISIONS		
PROJECT NO:		K45.004.003
DATE:		OCTOBER 2024
DRAWN BY:		N. EASLEY
DESIGNED BY:		N. EASLEY
CHECKED BY:		C. CALATRELLO
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TIE DOWN PLAN - BID  
ALT #2

CM204



# FRENCH VALLEY AIRPORT APRON PAVEMENT REHABILITATION

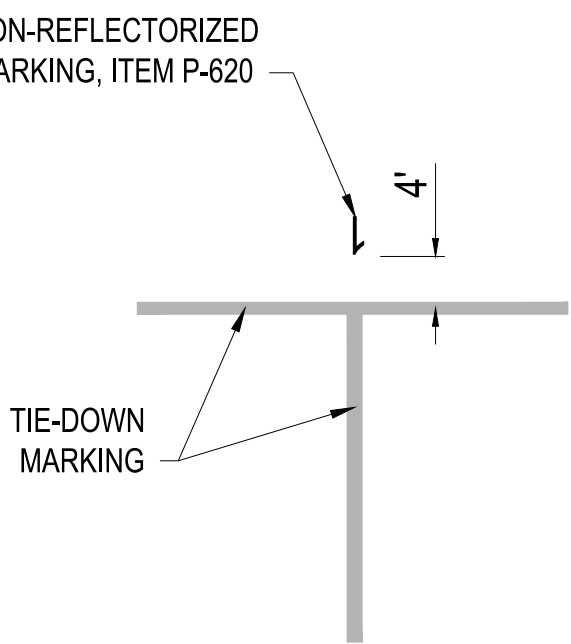
**MURRIETA, CALIFORNIA**

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## MARKING AND TIE DOWN DETAILS

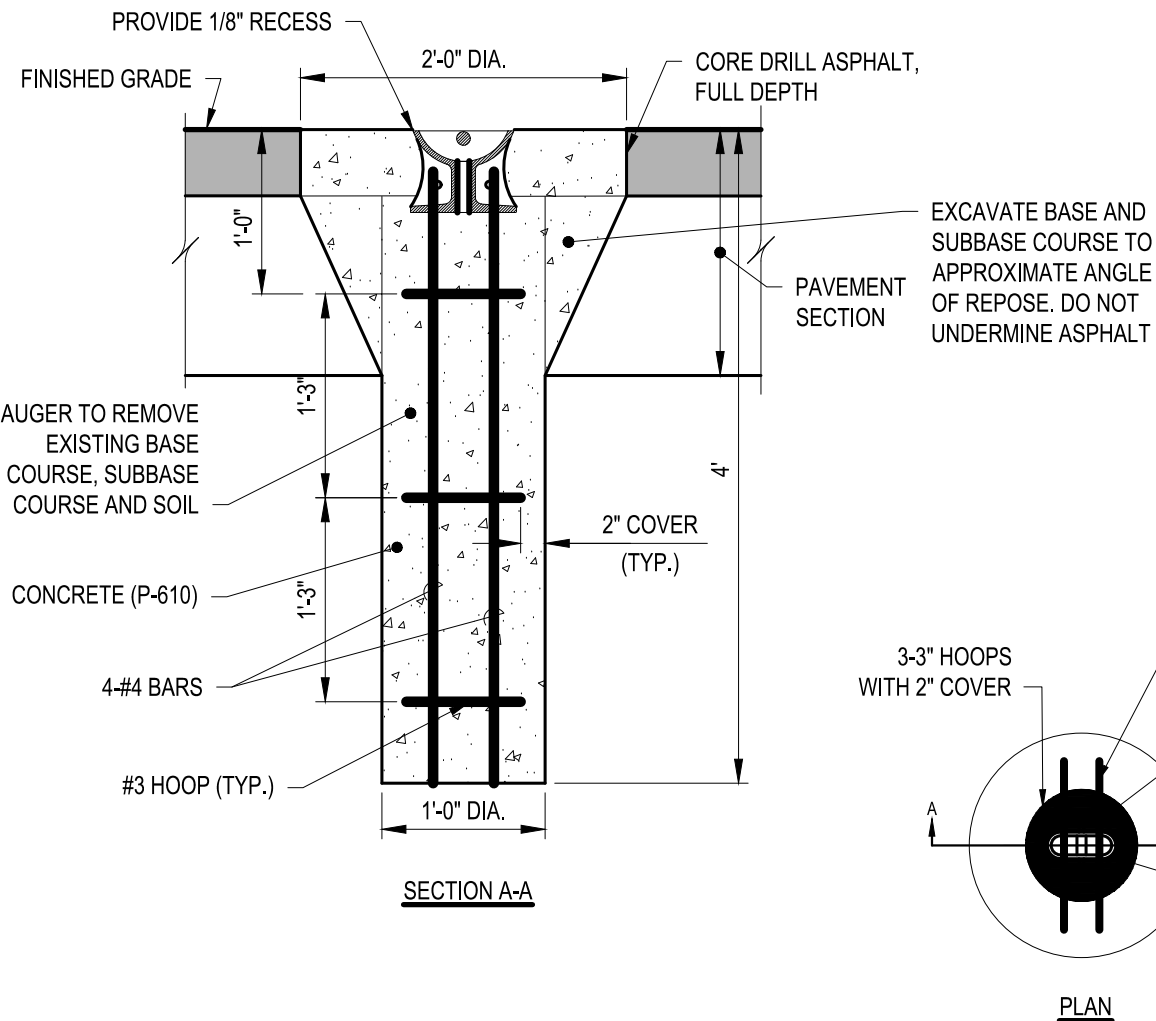
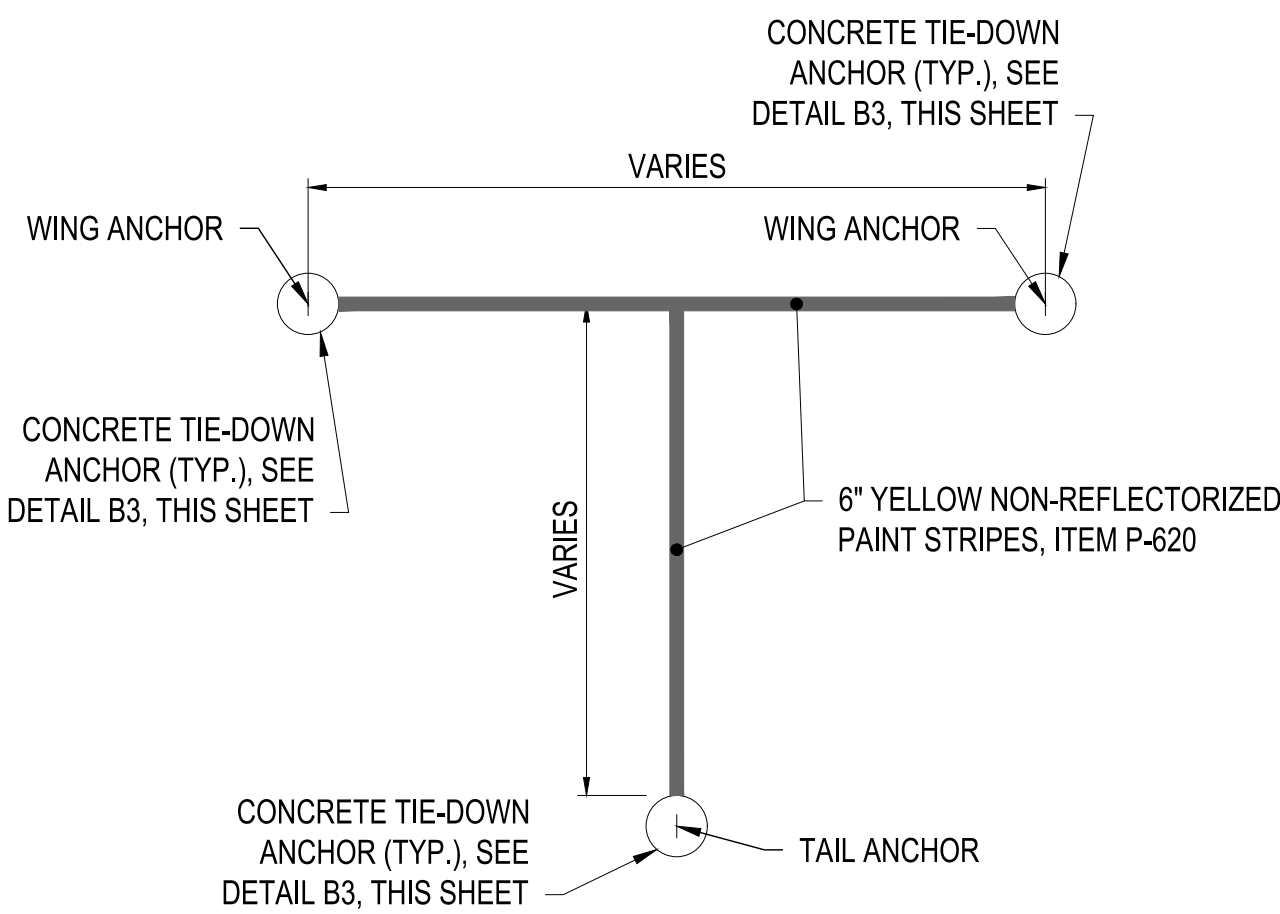
CM501

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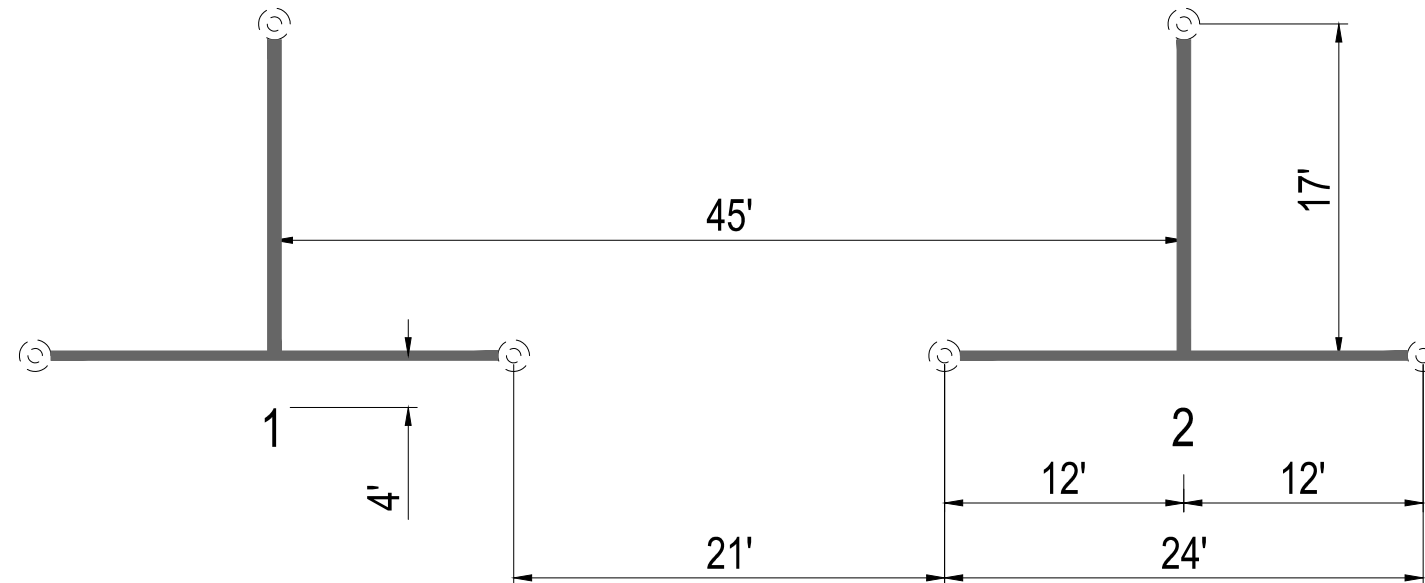
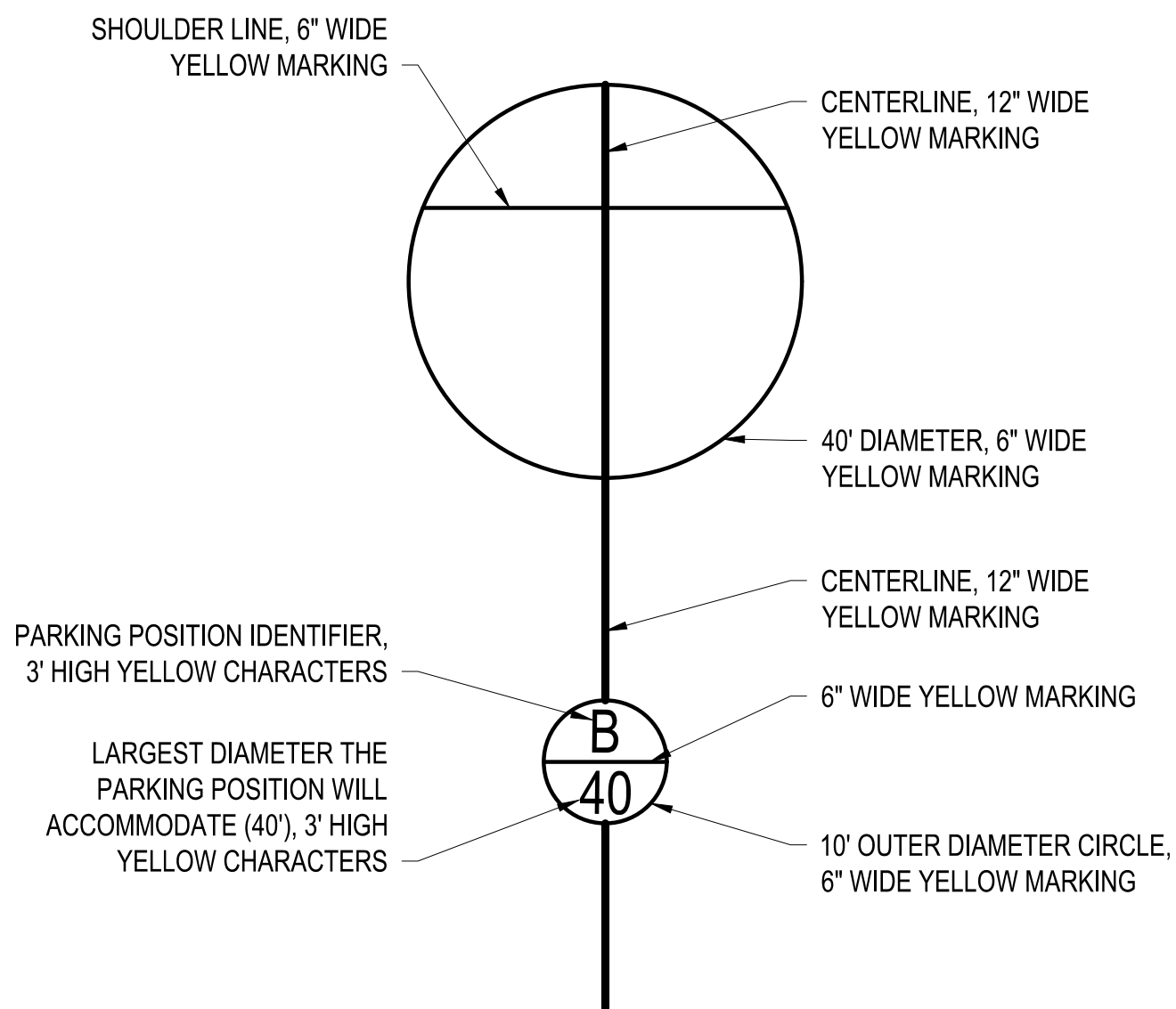
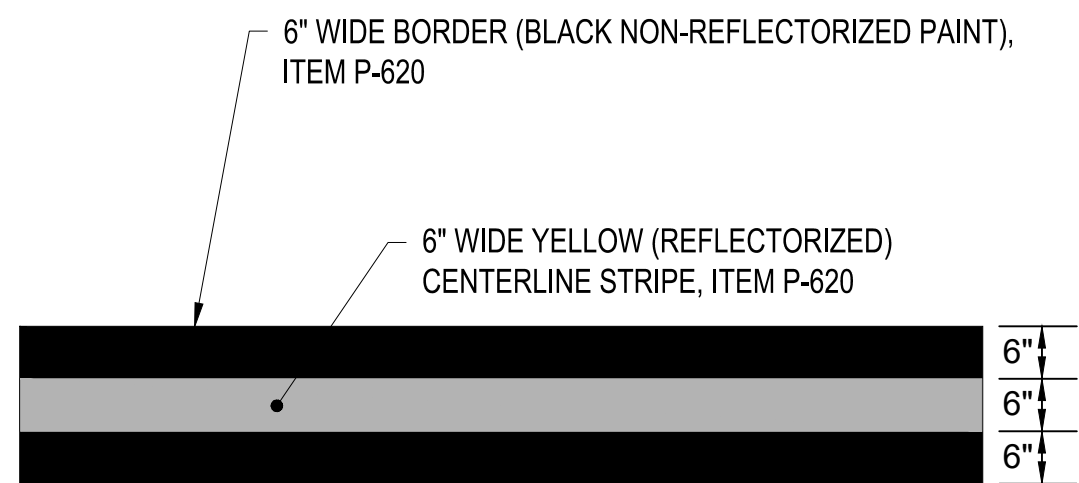
NOTE:

1. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH FAA  
ADVISORY CIRCULAR AC 150/5340-1L



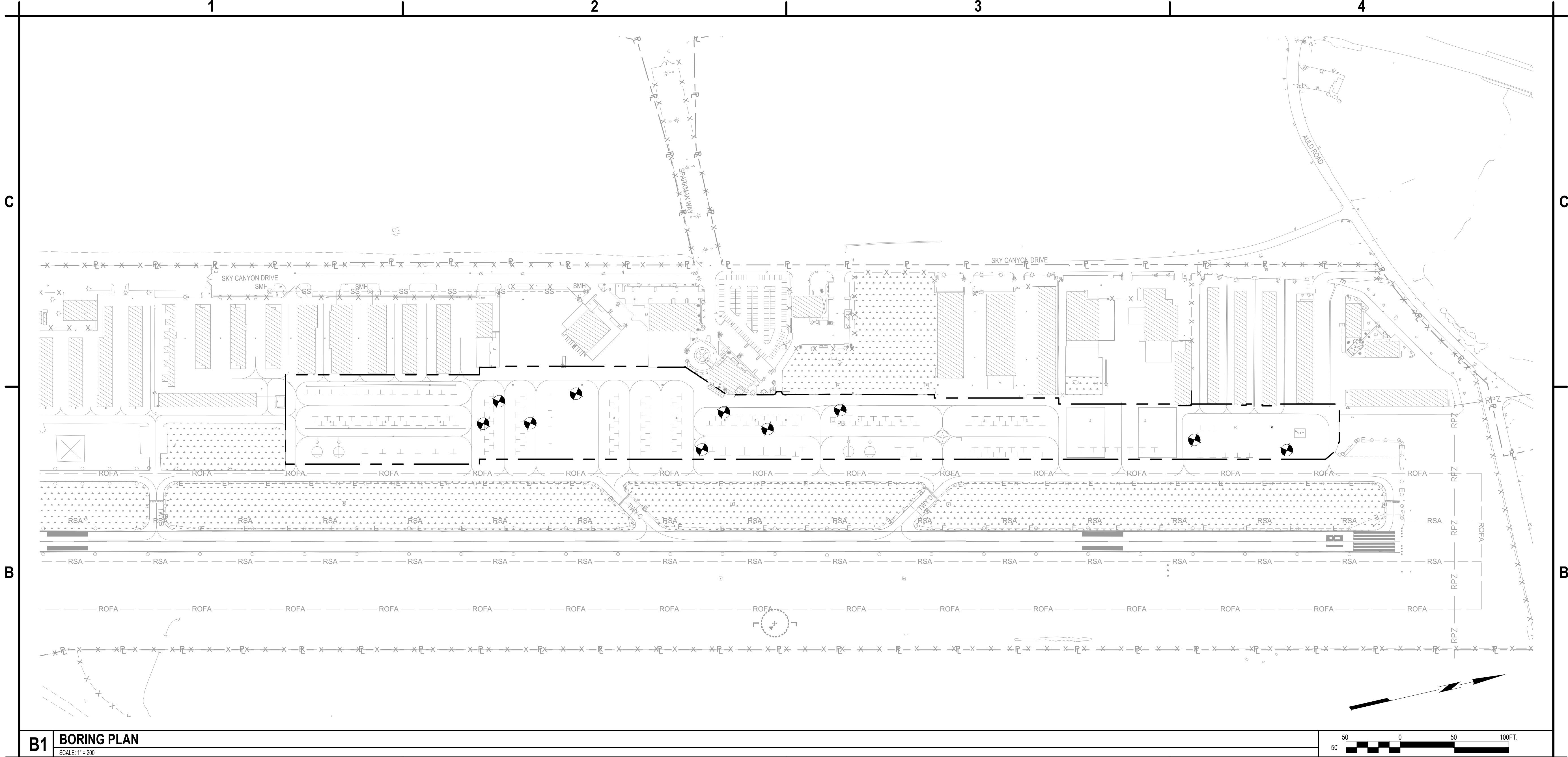
NOTES:

1. ALIGN MOORING EYE WITH ELONGATED LENGTH IN THE SAME DIRECTION AS THE STRIPING.
2. PROVIDE ONE CHAIN WITH A FINISHED LENGTH OF 12 FEET FOR EACH OF THE WING TIE-DOWN ANCHORS AND ONE CHAIN WITH A FINISHED LENGTH OF 8 FEET FOR EACH OF THE TAIL TIE DOWN ANCHORS. TYPICAL OF THREE (3) PER AIRCRAFT TIE-DOWN.
3. TIE-DOWN CHAINS SHALL BE GALVANIZED PLATED WITH 2/0 ELONGATED STRAIGHT LINKS, MATERIAL DIAMETER = 0.218-INCHES, NOMINAL INSIDE LINK DIMENSIONS = 1.29-INCHES X 0.38-INCHES.
4. TIE-DOWN CHAIN ASSEMBLIES SHALL HAVE A 1/4-INCH O.D. X 2-INCH ZINK-PLATED "S" HOOK AT AIRCRAFT END, AND 1/4-INCH GALVANIZED SCREW-PIN ANCHOR SHACKLE AT MOORING EYE END.
5. CONTRACTOR SHALL TEST-FIT TIE DOWN CHAIN ASSEMBLY ON-SITE PRIOR TO ORDERING QUANTITY NEEDED FOR AIRFIELD APRON.
6. CONTRACTOR SHALL PROVIDE MUD PLATE, SONOTUBE, SPECIAL FORM WORK, OR OTHER MEASURES AS APPROVED BY ENGINEER DURING PAVING.





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<b>A1</b> <b>LEGEND</b> SCALE: NOT TO SCALE	<b>A2</b> <b>NOT USED</b> SCALE: NOT TO SCALE	<b>A3</b> <b>NOT USED</b> SCALE: NOT TO SCALE	<b>A4</b> <b>KEYMAP</b> SCALE: NOT TO SCALE
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>



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**FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION**

**MURRIETA, CALIFORNIA**

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**BORING PLAN**

**RC100**

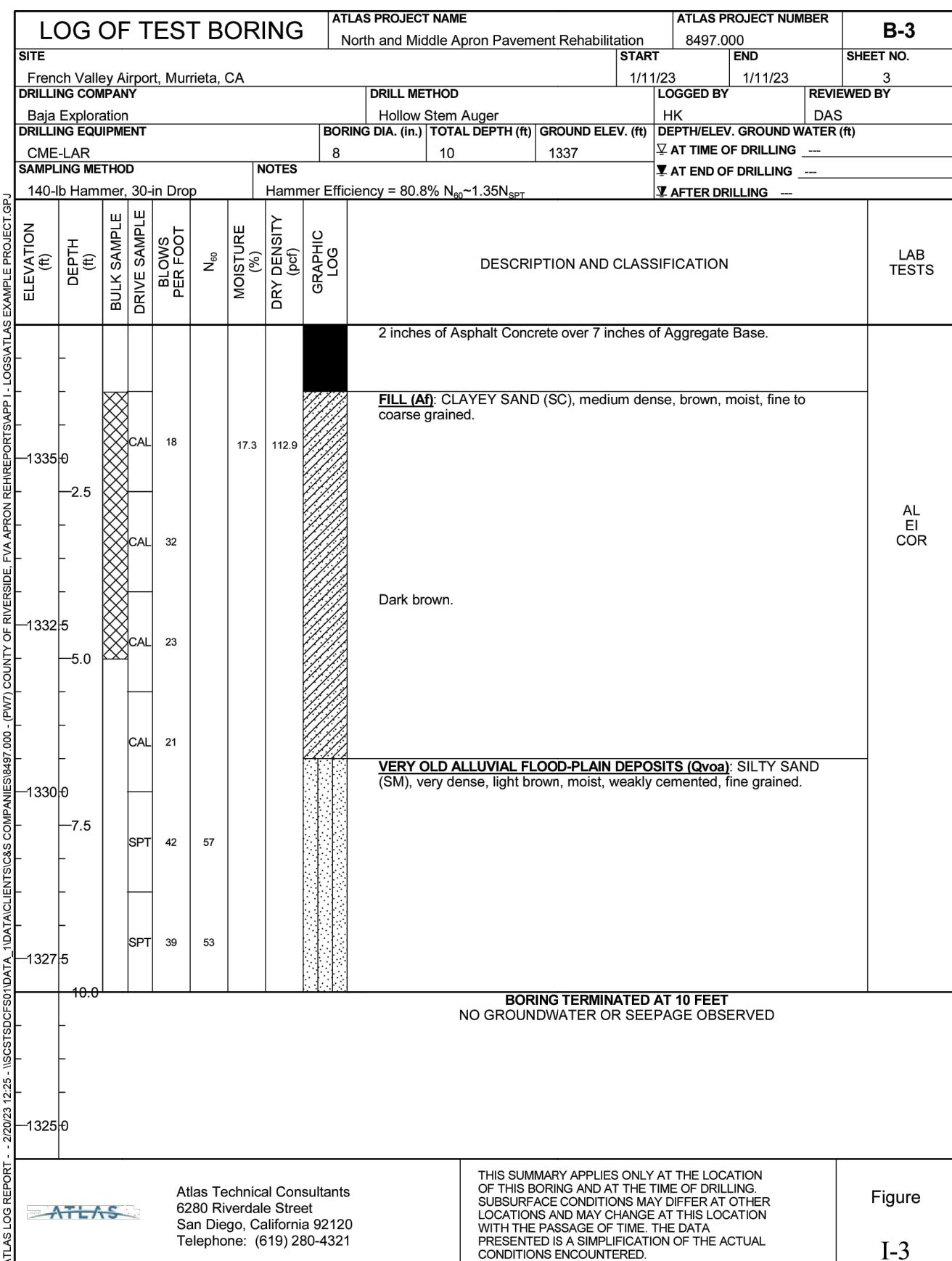
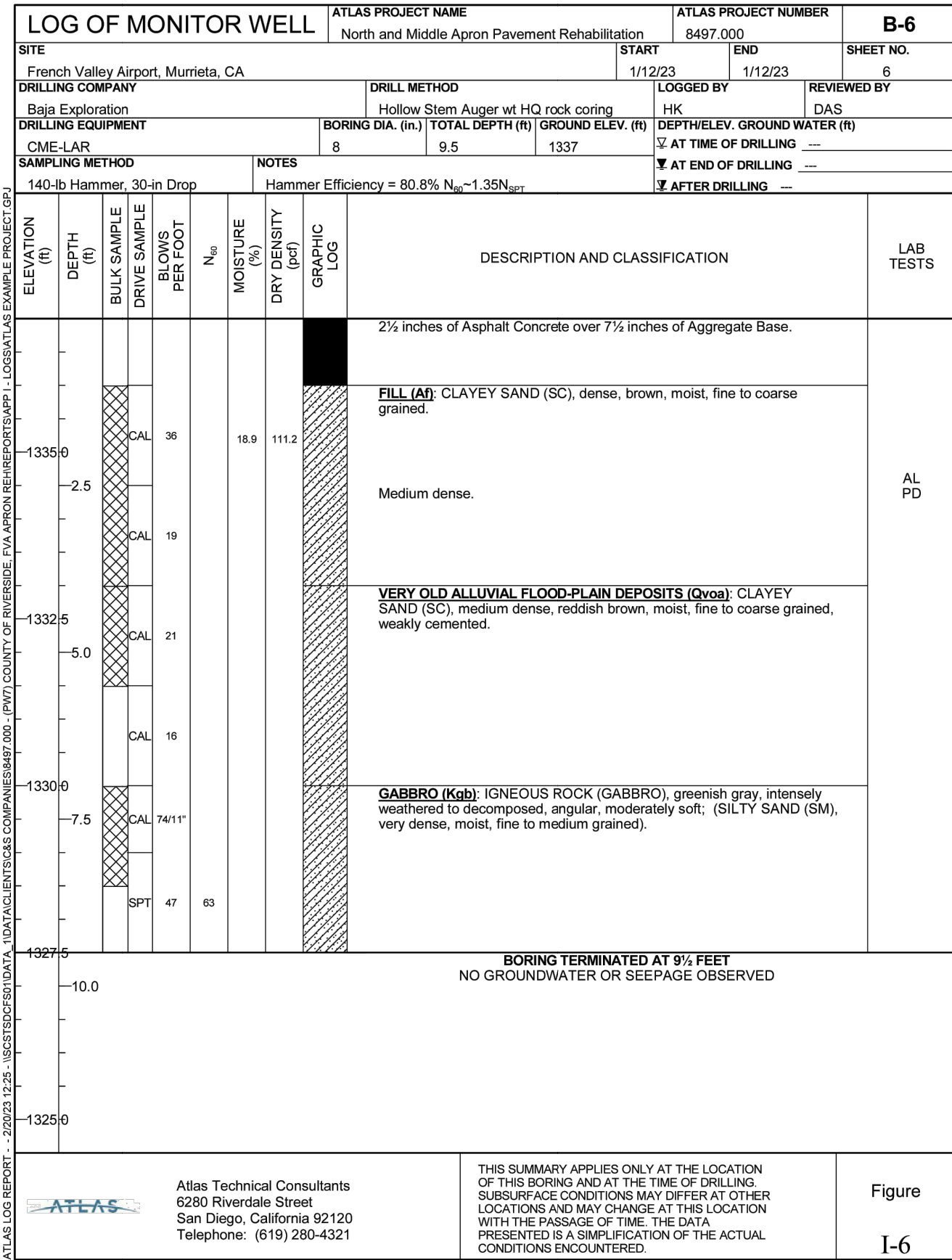
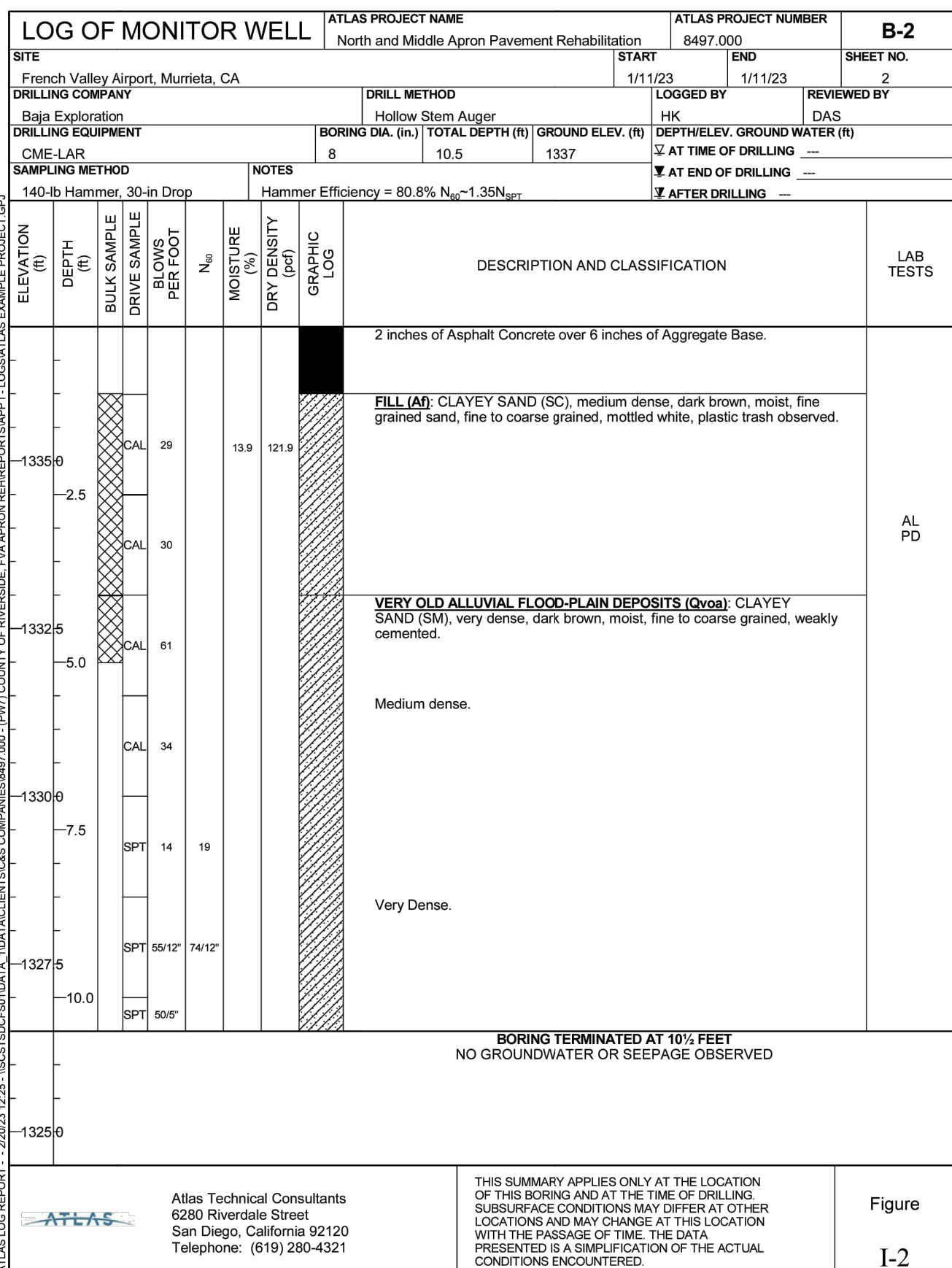
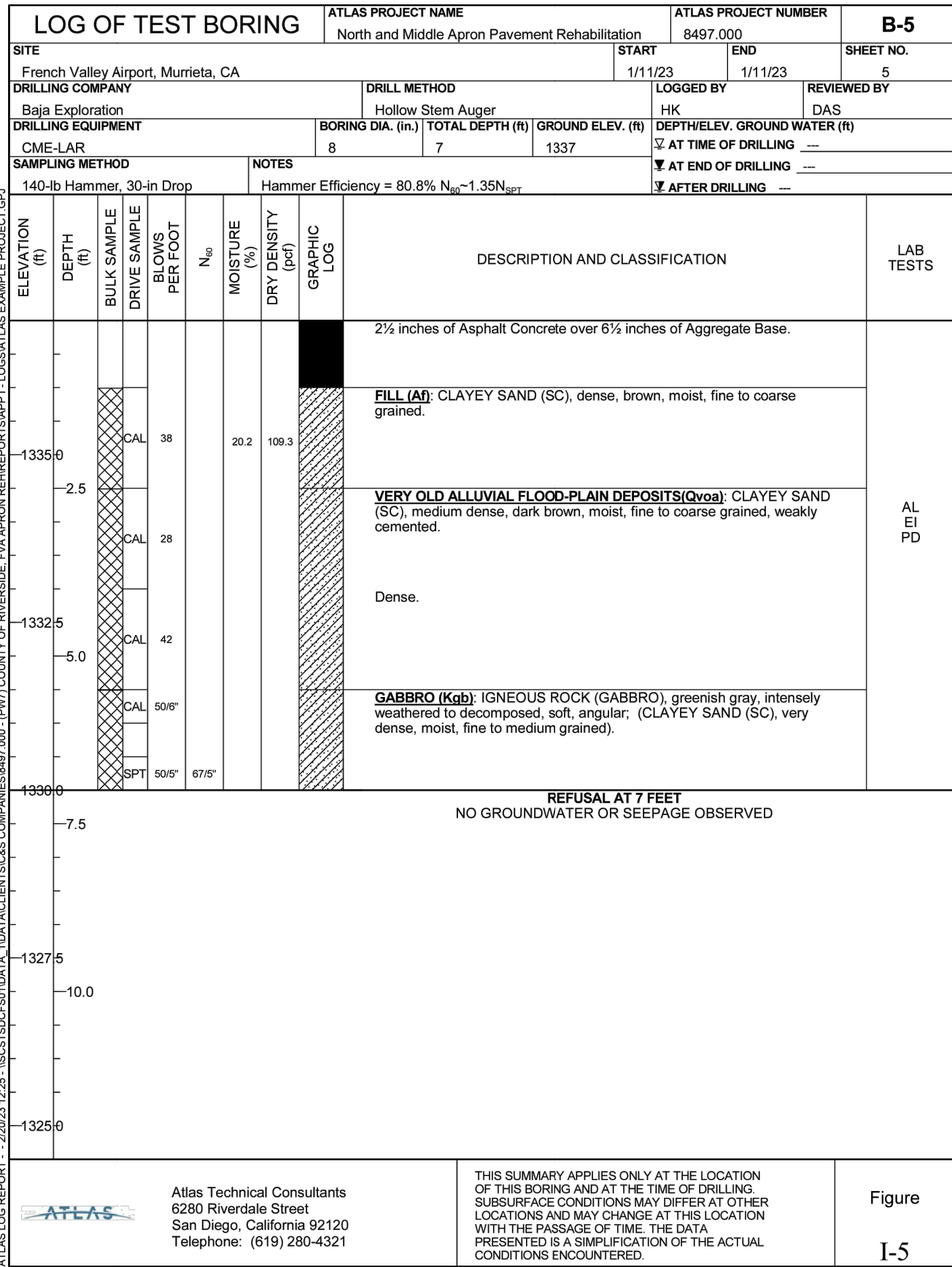
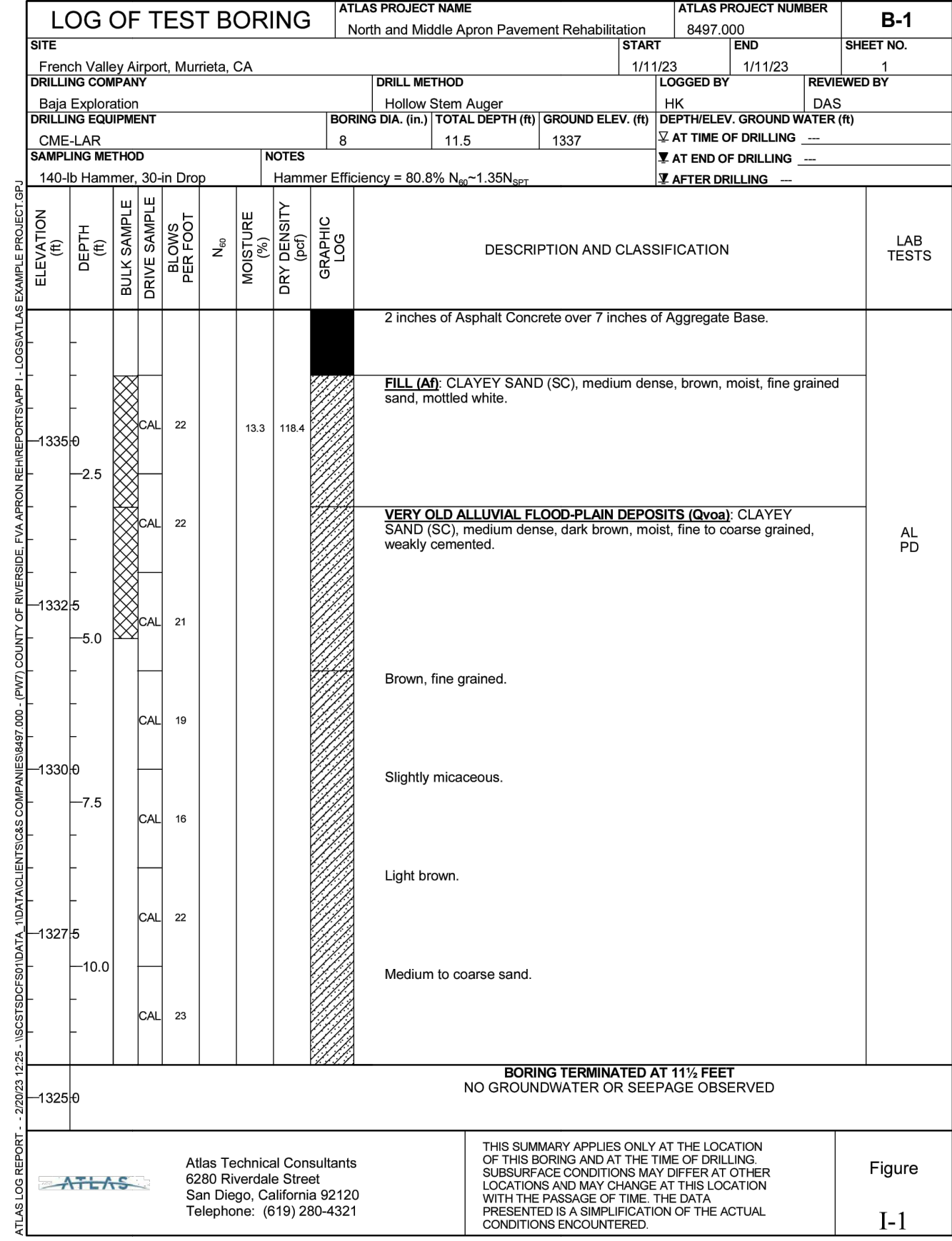
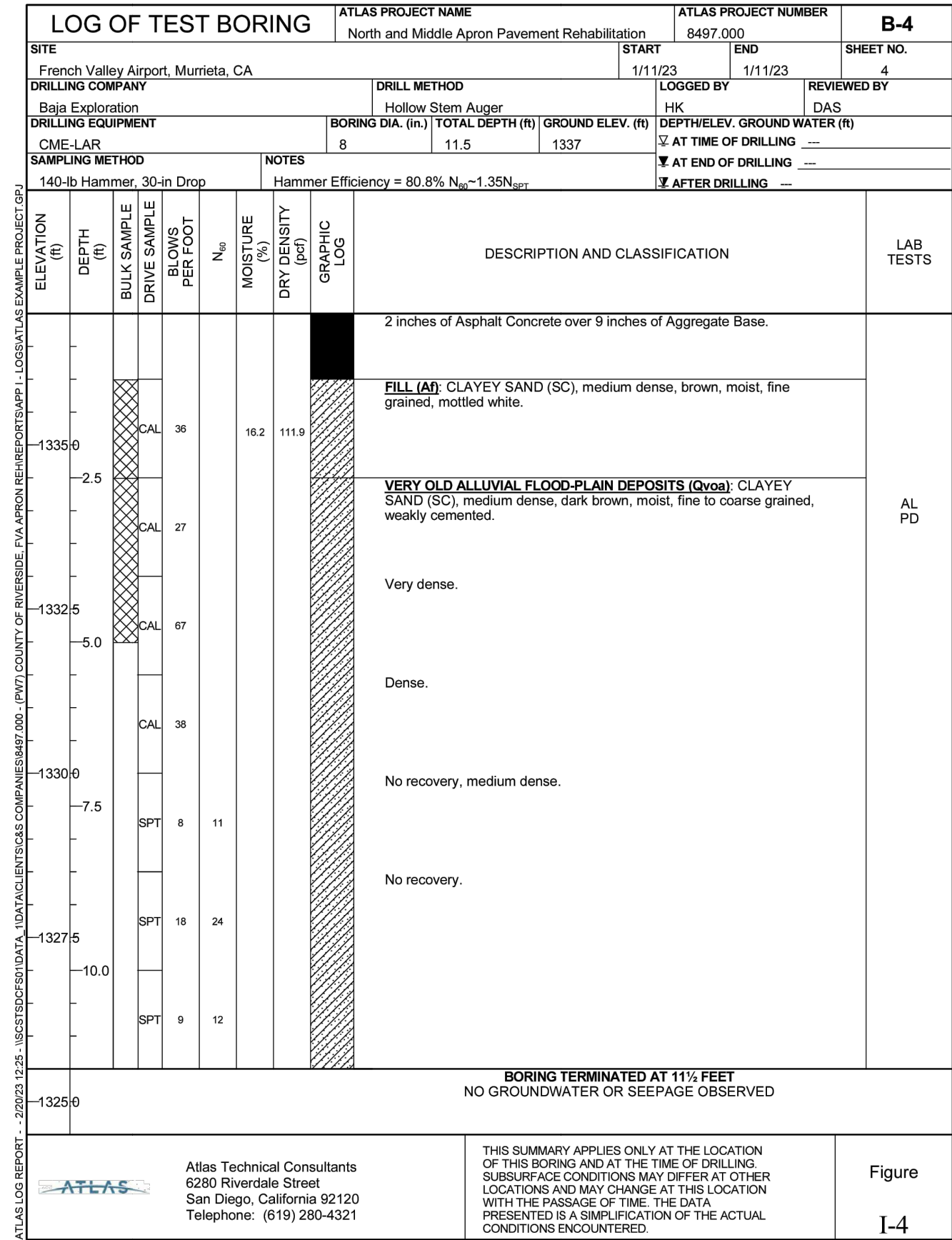


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A

C

B



FRENCH VALLEY AIRPORT APRON  
PAVEMENT REHABILITATION

MURRIETA, CALIFORNIA



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Phone: 619-296-9373  
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BORING LOGS

RC101

NOT FOR CONSTRUCTION

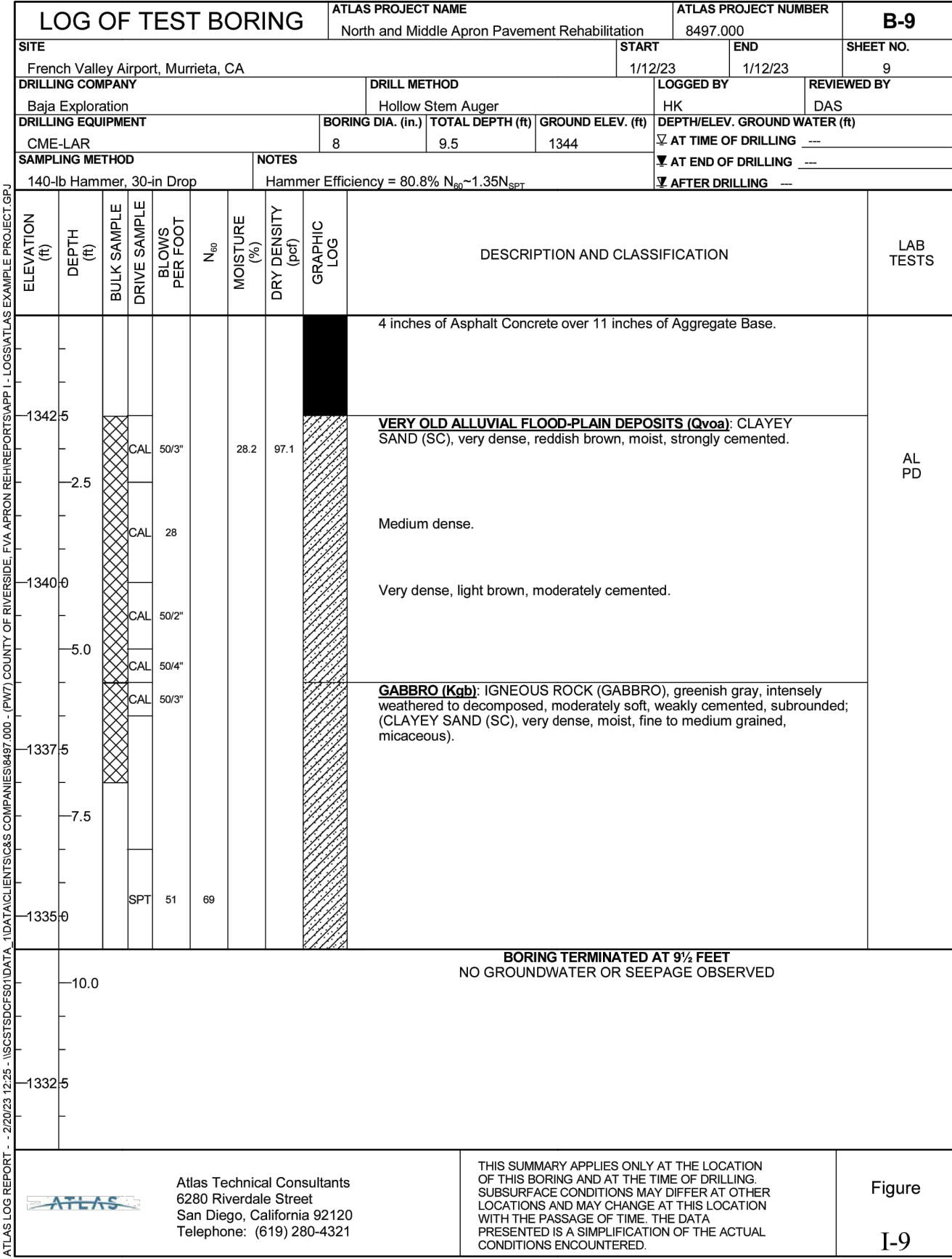
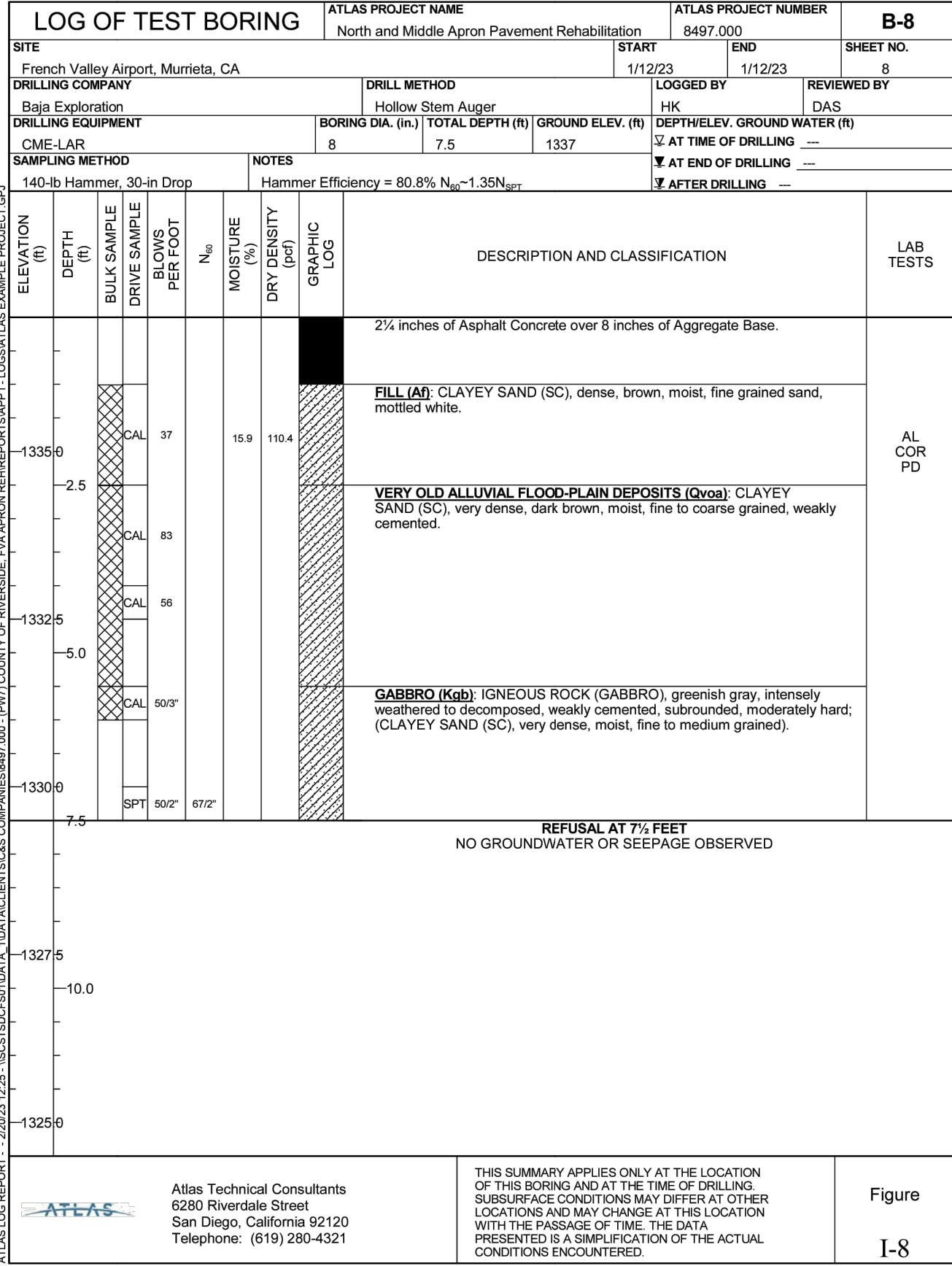
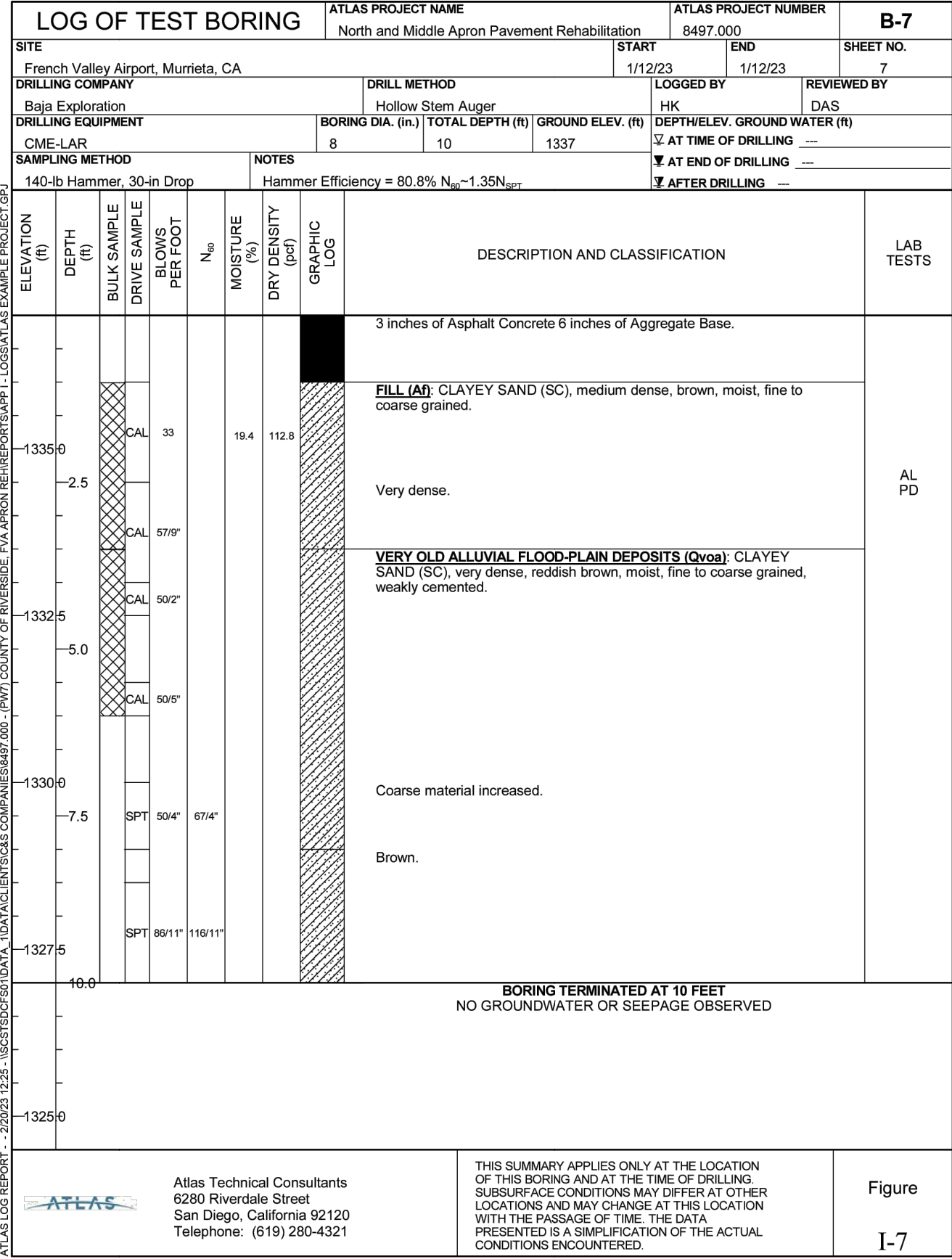
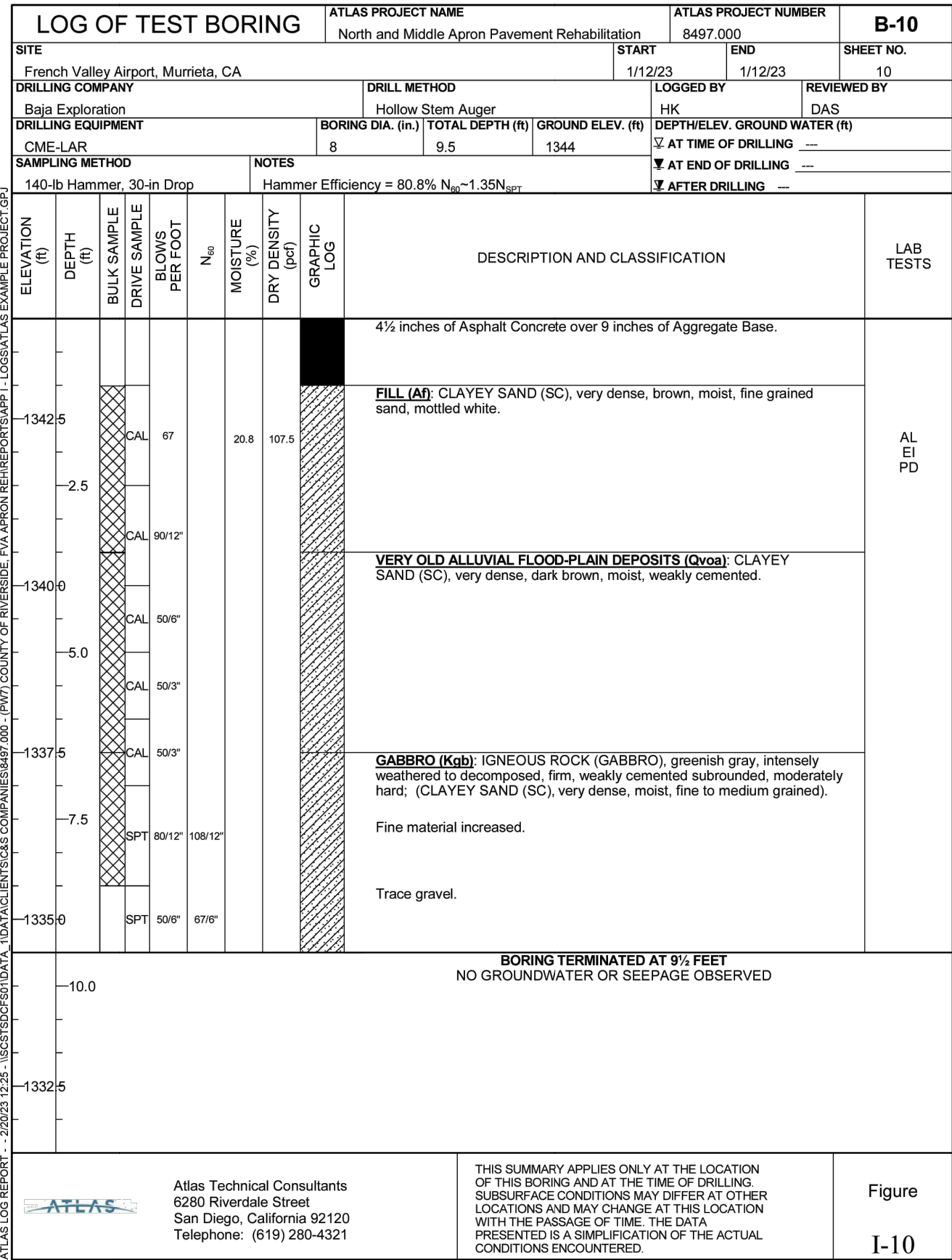


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A

B

C



# FRENCH VALLEY AIRPORT APRON PAVEMENT REHABILITATION

## MURRIETA, CALIFORNIA

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REVISIONS		
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BORING LOGS

RC102

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(951) 368-9229  
neller@scng.com

County of Riverside - Clerk of the Board  
PO Box 1147  
Riverside, California 92502

*Account Number:* 5209148  
*Ad Order Number:* 0011722229  
*Customer's Reference/PO Number:*  
*Publication:* The Press-Enterprise  
*Publication Dates:* 03/01/2025 and 03/08/2025  
*Total Amount:* \$2212.68  
*Payment Amount:* \$0.00  
*Amount Due:* \$2212.68  
*Notice ID:* t5qTMI6Kb3bv19VXlvFO  
*Invoice Text:*

ADVERTISEMENT NOTICE TO BIDDERS NOTICE IS HEREBY GIVEN THAT THE COUNTY OF RIVERSIDE ("OWNER") INVITES SEALED PROPOSALS FOR THE CONSTRUCTION OF APRON PAVEMENT REHABILITATION AT THE FRENCH VALLEY AIRPORT MURRIETA, CALIFORNIA Sealed proposals for the construction of the Apron Pavement Rehabilitation Contract will be received at the offices of the Clerk of the Board of Supervisors for the County of Riverside, 4080 Lemon Street, First Floor, Riverside California 92501 until 2:00pm on March 20, 2025, local time, and there, at said office, at said time, publicly opened and read aloud. The proposed project generally includes the reconstruction of the middle apron, crack seal, full depth crack repair, seal coat, and fire hydrant replacement on the north apron, and crack seal and seal coat on the south apron. New pavement markings will be placed on the apron. On and after March 1, 2025, the Contract Documents (consisting of the Advertisement, the Proposal, the Contract Form, and the Specifications) and the Contract Drawings may be obtained by contacting Michelle Auge of C&S Engineers, Inc. at (mauge@cscos.com) who will provide you with a OneDrive link to download Contract Documents and Contract Drawings. Your company will also be recorded on the plan holders list. Submitted proposals that were not recorded on the plan holders list shall be considered non-responsive. Each proposal must be accompanied by a certified check or bid bond, in the amount of five percent (5%) of the total maximum proposal price (combination of base bid or alternate bid plus add-on items) for the contract in the form and subject to the conditions provided in the Preparation of Proposal. Every request concerning this project must be made in writing or email



# THE PRESS-ENTERPRISE

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The Press-Enterprise  
3512 14 Street  
Riverside, California 92501  
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County of Riverside - Clerk of the Board  
PO Box 1147  
Riverside, California 92502

Publication: The Press-Enterprise

PROOF OF PUBLICATION OF

Ad Desc: 0011722229

FILE NO. 0011722229

## PROOF OF PUBLICATION

I am a citizen of the United States. I am over the age of eighteen years and not party to or interested in the above-entitled matter. I am an authorized representative of THE PRESS-ENTERPRISE, a newspaper of 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:

03/01/2025, 03/08/2025

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Date: March 8, 2025.  
At: Riverside, California



Signature

## ADVERTISEMENT

### NOTICE TO BIDDERS

NOTICE IS HEREBY GIVEN THAT  
THE COUNTY OF RIVERSIDE  
("OWNER") INVITES SEALED  
PROPOSALS

FOR THE CONSTRUCTION OF  
APRON PAVEMENT  
REHABILITATION  
AT THE  
FRENCH VALLEY AIRPORT  
MURRIETA, CALIFORNIA

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Every request concerning this project must be made in writing or email addressed to Michelle Auge (mauge@cscos.com) at C&S Engineers, Inc., located at 2355 Northside Drive., Suite 350, San Diego, CA 92108, and to be given consideration must be received at the above address at least ten (10) calendar days prior to the date fixed for opening of bids. Any supplemental instructions will be in the form of written addenda, which, when issued, will be sent and or posted 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.

A non-mandatory pre-bid

conference has been scheduled in order to review the specific requirements of this contract. All prospective bidders are encouraged to attend. The pre-bid conference is scheduled for March 11, 2025 at 11:00am outside of the Terminal building, 37600 Sky Canyon Drive, Murrieta, CA 92563.

Pursuant to labor Code section 1771.1, any contractor bidding, or subcontractor to be listed on a bid proposal subject to Public Contract Code section 4104, shall not be qualified to bid after March 1, 2015, unless currently registered and qualified to perform public works pursuant to Labor Code section 1725.5. No Contractor or subcontractor may enter into a contract (after April 1, 2015) without proof of current registration to perform public works. The Bidder receiving the Award by the County is required to comply with the provisions of the California Labor Code, including, without limitation, Sections 1771.4, 1773.1, 1774, 1775 and 1776 of the California Labor Code and including, without limitation, the obligations to pay the general prevailing rates of wages in the locality in which the Work is to be performed and comply with Section 1777.5 of the California Labor Code governing employment of apprentices. Copies of the prevailing rates of per diem wages are on file at California State Department of Industrial Relations, 464 West Fourth St., Suite 348, San Bernardino, CA 92401, and are available to any interested party on request.

THIS IS A PUBLIC WORKS PROJECT AND IS SUBJECT TO COMPLIANCE MONITORING AND ENFORCEMENT BY THE DEPARTMENT OF INDUSTRIAL RELATIONS. The awarded prime contractor shall post job site notices as prescribed by regulation starting January 1, 2015. Contractor or subcontractor shall furnish records specified in Labor Code section 1776 to the Labor Commissioner.

Substitution of securities for any moneys withheld by the County shall be permitted as provided for by Section 22300 of the California Public Contract Code.

The bidder receiving the Award by the County is required both at the time Bidder submits its Bid and other Bid Submittals and at the time of Award, to: (a) hold a contracting license, active and in good standing, issued by the Contractors State License Board for the State of California for the following license classification(s): Class "A" California Contractor's License.

The Owner reserves the right to waive any informality in the proposal, and to reject any and all proposals.

For information contact the Aviation Division office for this project:  
4080 Lemon Street 14th Floor

Riverside, CA 92501

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: February 27, 2025  
KIMBERLY A. RECTOR  
Clerk of the Board of Supervisors  
By: Naomi Sica, Clerk of the Board Assistant

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