

FORM APPROVED COUNTY COUNSEL  
 BY: GREGORY P. PRIAMOS DATE 6/6/16

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

949



**FROM:** Economic Development Agency

**SUBMITTAL DATE:**  
 June 9, 2016

**SUBJECT:** Riverside University Health System Fire Alarm Upgrade Project – Approval of Project Budget and Construction Contract with Vincor Construction, Inc., District 5, [\$1,055,879], RUHS Enterprise Fund 40050 - 100%

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

1. Approve a project budget of \$1,055,879 and authorize the use of the RUHS Enterprise Fund 40050 for the Riverside University Health System (RUHS) Fire Alarm Upgrade Project, including incurred project expenses;
2. Authorize the use of the Easy Indefinite Quantity Construction (EZIQC) Agreement sponsored by the National Joint Powers Alliance (NJPA) for a construction contract with Vincor Construction, Inc. (Vincor) of Brea, California, to complete the project;
3. Approve the attached construction contract between the County of Riverside (County) and Vincor in the amount of \$720,356 and authorize the Chairman of the Board to execute the contract on behalf of the County;

(Continued)

FISCAL PROCEDURES APPROVED  
 PAUL ANGULO, CPA, AUDITOR-CONTROLLER  
 BY: E. Hernandez 6/8/16  
 Esteban Hernandez

Robert Field  
 Robert Field  
 Assistant County Executive Officer/EDA

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost:	POLICY/CONSENT (per Exec. Office)
COST	\$ 1,055,879	\$ 0	\$ 1,055,879	\$ 0	Consent <input type="checkbox"/> Policy <input checked="" type="checkbox"/>
NET COUNTY COST	\$ 0	\$ 0	\$ 0	\$ 0	

**SOURCE OF FUNDS:** RUHS Enterprise Fund 40050 – 100%  
 Budget Adjustment: No  
 For Fiscal Year: 2016/17

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

REVIEWED BY CIP: Ivan M. Chand 6/14/2016  
 APPROVE BY: Rohini Dasika  
 Ivan M. Chand Rohini Dasika

County Executive Office Signature

**MINUTES OF THE BOARD OF SUPERVISORS**

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

Ayes: Jeffries, Tavaglione, Washington, Benoit and Ashley  
 Nays: None  
 Absent: None  
 Date: June 21, 2016  
 xc: EDA, Purchasing

Kecia Harper-Ihem  
 Clerk of the Board  
 By: Kecia Harper-Ihem  
 Deputy

Prev. Agn. Ref.: 3-28 of 8/18/15; 3-28 of 10/18/11 | District: 5 | Agenda Number:

3-25

By: Zaren Sarrafian, Chief Executive Officer  
 Riverside University Health System

- A-30
- Positions Added
- 4/5 Vote
- Change Order

Departmental Concurrence

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

Economic Development Agency

**FORM 11:** Riverside University Health System Fire Alarm Upgrade Project – Approval of Project Budget and Construction Contract with Vincor Construction, Inc., District 5, [\$1,055,879], RUHS Enterprise Fund 40050 - 100%

**DATE:** June 9, 2016

**PAGE:** 2 of 3

## **RECOMMENDED MOTION:** (Continued)

4. Authorize the Assistant County Executive Officer/EDA or designee, to administer the contract in accordance with applicable Board policies;
5. Delegate project management authority for the project to the Assistant County Executive Officer/EDA in accordance with applicable Board policies, including the authority to utilize consultants on the approved pre-qualified list for services in connection with the project, and are within the approved project budget; and
6. Authorize the Purchasing Department to execute the consultant services agreements in accordance with applicable Board policies.

## **BACKGROUND:**

### **Summary**

RUHS submitted a request to the Economic Development Agency (EDA) to initiate the RUHS Fire Alarm Upgrade project. Due to the age, condition, deficiencies and constant repairs to the existing fire alarm system within the RUHS facility, there is a need for an upgraded alarm system for the safety of the public, patients and staff. The scope of work includes removing and upgrading the existing fire alarm life safety system panels, devices and equipment throughout the hospital; relocate the existing closed-circuit television (CCTV) system cabling; and relocate racks and the digital video recorder in the security room.

On August 18, 2015, the Board of Supervisors (Board) approved a pre-qualified list of architectural and engineering firms to be retained on an as-needed basis. Based on their experience and successful completion of similar projects, DCGA Engineers was selected from the list of pre-approved architects to provide full design and construction documents for the project. The engineering service fees were negotiated based on the scope of services necessary and the requirement for contracting with firms on the pre-approved list.

On October 18, 2011, the Board ratified membership of the County in the NJPA. The County's membership in NJPA allows participation in the EZIQC program, a contract procurement method that allows EDA to move more quickly to the construction phase of a project and expedite project delivery.

Vincor, an approved EZIQC contractor, walked the site with EDA, DCGA Engineers, and RUHS Plant Operations personnel and developed the scope of work in accordance with the construction documents and the EZIQC documents. Following the site walk and their review of the drawings, Vincor submitted their proposal in the amount of \$720,356 in accordance with the EZIQC contract.

### **Impact on Citizens and Businesses**

The upgrade to the RUHS fire alarm system will enhance the safety and security of the public, patients and staff. Construction has been scheduled to minimize any impact to the operations of the hospital.

### **Additional Fiscal Information**

(Commences on Page 3)

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

Economic Development Agency

**FORM 11:** Riverside University Health System Fire Alarm Upgrade Project – Approval of Project Budget and Construction Contract with Vincor Construction, Inc., District 5, [\$1,055,879], RUHS Enterprise Fund 40050 - 100%

**DATE:** June 9, 2016

**PAGE:** 3 of 3

**Additional Fiscal Information**

The approximate allocation of the project budget is as follows:

<b>PROJECT BUDGET LINE ITEMS</b>	<b>BUDGET CATEGORY</b>	<b>PROJECT BUDGET AMOUNT</b>
Architectural Design	1	40,700
Construction Management	2	36,450
Construction Contract	3	720,356
Offsite Construction	4	0
Project Management / In-House Staff Costs	5	52,600
Fixtures, Furnishings, Equipment	6	2,200
Other Soft Costs / Specialty Consultants	7	107,784
Project Contingency	8	95,789
Demolition	9	0
<b>Project Budget</b>		<b>\$ 1,055,879</b>

All costs associated with this project will be expended in FY 2016/17 and are 100% funded through the RUHS Enterprise Fund 40050; thus no departmental budget adjustment is required at this time.

Attachment:

Construction Contract with Vincor Construction, Inc.

949

EZIQC SPECIFICATIONS AND CONTRACT DOCUMENTS

FOR

FM0843000042

RIVERSIDE UNIVERSITY MEDICAL CENTER  
FIRE ALARM UPGRADE PROJECT



PREPARED BY  
COUNTY OF RIVERSIDE  
ECONOMIC DEVELOPMENT AGENCY

JUN 21 2016 325

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**MEMBERSHIP AGREEMENT  
PARTICIPATING MEMBER**



This Agreement, made and entered into this 1 day of September, 2011,  
by and between National Joint Powers Alliance®, hereinafter referred to as "NJPA" and  
County of Riverside, CA hereinafter referred to as the "Applicant".

**Witnesseth:**

That for a good and valuable consideration of the premises, mutual terms, covenants, provisions, and conditions hereafter set forth, it is agreed by and between the parties as follows:

*Whereas, the NJPA is created by Minnesota Statute §123A.21 (with membership further defined in M.S. §471.59) to serve cities, counties, towns, public or private schools, political subdivisions of Minnesota or another state, another state, any agency of the State of Minnesota or the United States including instrumentalities of a governmental unit and all non-profits; and*

*Whereas, NJPA's purpose as defined in M.S. §123A.21 is to assist in meeting specific needs of clients which could be better provided by NJPA than by the members themselves; and*

*Whereas, the NJPA Board of Directors has established the ability for an "Applicant" desiring to participate in NJPA contracts and procurement programs to become a Participating Member; and*

*Whereas, the NJPA Board of Directors has determined that Participating Members will have no financial or organizational liability to NJPA or to its organizational activities;*

**Now Therefore**, it is hereby stipulated and agreed that the "Applicant" Agency desires to be a Participating Member of NJPA with contract purchasing benefits, in accordance with terms and conditions of the applicable contract(s), and that NJPA hereby grants said Membership to said "Applicant."

**Term:**

This continuing agreement shall remain in force or until either party elects to dissolve the Agreement by written notice.

**THEREFORE, IN WITNESS THEREOF,**

the parties hereto have executed this Agreement the day and year written above.

National Joint Powers Alliance®  
200 1st Street NE, Suite 1  
Staples, MN 56479

Member Name:

By Bob Buster  
AUTHORIZED SIGNATURE  
**BOB BUSTER**  
CHAIRMAN, BOARD OF SUPERVISORS  
TITLE  
OCT 18 2011  
DATE

[Signature]  
AUTHORIZED SIGNATURE  
EXECUTIVE DIRECTOR  
TITLE  
9/1/11  
DATE

FORM APPROVED COUNTY COUNSEL  
BY: [Signature]  
NEAL R. KIPNIS  
DATE 9/22/11

09/21/2010

OCT 18 2011 3:13

RECIA HARPER-IHEM, Clerk  
By [Signature]  
DEPUTY



INDEFINITE QUANTITY CONSTRUCTION AGREEMENT

IFB NUMBER: CA-GC07C-082013-VCI

GEOGRAPHIC AREA Riverside

This Agreement dated August 20, 2013, by and between the National Joint Powers Alliance, hereinafter referred to as NJPA and Vincor Construction, Inc. at the following address 218 Viking Avenue, Brea, CA 92821.

hereinafter referred to as the CONTRACTOR.

WITNESSETH: NJPA and CONTRACTOR for the consideration hereafter agree as follows:

ARTICLE 1. CONTRACT DOCUMENTS

- A. Contract Documents: This Agreement; the IFB Documents; (Book 1 - Project Information, Instructions to Bidders and Execution Documents; Book 2 - IQCC Standard Terms and Conditions and General Conditions; Book 3 - Construction Task Catalog (CTC), Book 4 - Technical Specifications) and Addenda thereto, the Bid Deposit, all payment and performance bonds (if any), material and workmanship bonds (if any); wage rate decisions and certified payroll records (if any); Notice of Award; all modifications issued thereto, including Supplemental Work Orders/Change Orders and written interpretations and all Purchase Orders and accompanying documents (Requests for Proposals, Detailed Scopes of Work, Work Order Proposal Packages, etc.) issued hereunder.
- B. The terms and conditions of a Purchase Order issued by an NJPA Member in connection with any Work Order, including supplemental technical specifications referenced therein, shall govern.

- C. The Contractor shall, within two (2) business days of receipt of a Purchase Order from an NJPA Member, provide notification to NJPA or their designated representative of each Purchase Order by forwarding a copy of the Purchase Order via email to PO@EZIQC.com or via facsimile to (864) 233-9100.
- D. The Contractor shall, within two (2) business days of sending an Invoice to an NJPA Member, provide notification to NJPA or their designated representative of each Invoice by forwarding a copy of the Invoice via email to Invoice@EZIQC.com or via facsimile to (864) 233-9100.

#### ARTICLE 2. SCOPE OF WORK

- A. The Contractor shall provide the services required to develop each Work Order in accordance with the procedures for developing Work Orders set forth in the IQCC Standard Terms and Conditions and the Contract Documents.
- B. Each Work Order developed in accordance with this Agreement will be issued in connection with a Purchase Order by an individual NJPA Member. The Purchase Order will reference the Work Order and require the Contractor to perform the Detailed Scope of Work within the Work Order Completion Time for the Work Order Price.
- C. It is anticipated that the Contractor will perform Work primarily in the Geographic Area set forth above. However, the parties may agree that the Contractor can perform Work in a different Geographic Area at its current Adjustment Factors.

#### ARTICLE 3. THE AGREEMENT PRICE

- A. This Agreement is an indefinite-quantity contract for construction/roofing work and services. The Estimated Annual Value of this Agreement is \$ 2,000,000. This is only an estimate and may increase or decrease at the discretion of the NJPA.
- B. The Contractor shall perform any or all Tasks in the Construction Task Catalog for the unit price appearing therein multiplied by the following Adjustment Factors:
  - a. The Contractor shall perform any or all Tasks in the Construction Task Catalog for the unit price appearing therein multiplied by the following Adjustment Factors **TO BE ENTERED BY NJPA**:
    - a. Normal Working Hours Prevailing Wage: Work performed from 7:00am until 4:00pm Monday to Friday, except holidays. Contractor shall perform Tasks during Normal Working Hours for the Unit Price set forth in the CTC multiplied by the Adjustment Factor of:

0.9730

(Specify to four (4) decimal places)



- b. Other Than Normal Working Hours Prevailing Wage: Work performed from 4:00pm to 7:00am Monday to Friday, and any time Saturday, Sunday and Holidays. Contractor shall perform Tasks during Other Than Normal Working Hours for the Unit Price set forth in the CTC multiplied by the Adjustment Factor of:

0.9731  
(Specify to four (4) decimal places)

- c. Normal Working Hours Non Prevailing Wage: Work performed from 7:00am until 4:00pm Monday to Friday, except holidays. Contractor shall perform Tasks during Normal Working Hours for the Unit Price set forth in the CTC multiplied by the Adjustment Factor of:

0.8973  
(Specify to four (4) decimal places)

- d. Other Than Normal Working Hours Non Prevailing Wage: Work performed from 4:00pm to 7:00am Monday to Friday, and any time Saturday, Sunday and Holidays. Contractor shall perform Tasks during Other Than Normal Working Hours for the Unit Price set forth in the CTC multiplied by the Adjustment Factor of:

0.8974  
(Specify to four (4) decimal places)

- e. Non Pre-priced Adjustment Factor: To be applied to Work deemed not to be included in the CTC but within the general scope of the work:

1.1892  
(Specify to four (4) decimal places)

#### ARTICLE 4. TERM OF THE AGREEMENT

- A. The base term shall be one year with three one year options. The total term of the Contract shall not exceed four years. The Contractor may withdraw from the Agreement on each anniversary of the award, provided that the Contractor gives 60 Days written notice of its intent to withdraw. NJPA may, for any reason, terminate this Agreement at any time.
- B. All Purchase Orders issued during a term of this Agreement shall be valid and in effect notwithstanding that the Detailed Scope of Work may be performed, payments may be made, and the guarantee period may continue, after such term has expired. All terms and conditions of the Agreement apply to each Purchase Order.

#### ARTICLE 5. SOFTWARE LICENSING

- A. NJPA selected The Gordian Group's (Consultant) software, data and services (IQCC System) for their IQCC program. The system includes Consultant's proprietary PROGEN®, eGordian® and/or ezIQCC® IQCC applications (IQCC Applications) and construction cost data (Construction Task Catalog®), which shall be used by the Contractor to prepare and submit Price Proposals, subcontractor lists, and other requirements specified by NJPA and NJPA Members. The Contractor shall be required to agree to Consultant's IQCC System License to obtain access to Consultant's IQCC Applications. The Contractor's use, in whole or in part, of Consultant's IQCC Applications and Construction Task Catalog and other proprietary materials provided by Consultant for any purpose other than to execute work under this Contract for NJPA and NJPA Members is strictly prohibited unless otherwise stated in writing by Consultant. The Contractor hereby agrees to abide by the terms of the following IQCC System License:

#### ARTICLE 6. IQCC SYSTEM LICENSE

Consultant hereby grants to the Contractor, and the Contractor hereby accepts from Consultant for the term of this Contract or Consultant's contract with NJPA, whichever is shorter, a non-exclusive right, privilege, and license to Consultant's proprietary IQCC System and related proprietary materials (collectively referred to as "Proprietary Information") to be used for the sole purpose of executing Contractor's responsibilities to NJPA and NJPA Members under this Contract ("Limited Purpose"). The Contractor hereby agrees that Proprietary Information shall include, but is not limited to, Consultant's IQCC Applications and support documentation, Construction Task Catalog, training materials and any other proprietary materials provided to Contractor by Consultant. In the event this Contract expires or terminates as provided herein, or the Consultant's contract with NJPA expires or terminates, this IQCC System License shall terminate and the Contractor shall return all Proprietary Information in its possession to Consultant.

Contractor acknowledges that Consultant shall retain exclusive ownership of all proprietary rights to the Proprietary Information, including all U.S. and international intellectual property and other rights such as patents, trademarks, copyrights and trade secrets. Contractor shall have no right or interest in any portion of the Proprietary Information except the right to use the Proprietary Information for the Limited Purpose set forth herein. Except in furtherance of the Limited Purpose, Contractor shall not distribute, disclose, copy, reproduce, display, publish, transmit, assign, sublicense, transfer, provide access to, use or sell, directly or indirectly (including in electronic form), any portion of the Proprietary Information.

Contractor acknowledges and agrees to respect the copyrights, trademarks, trade secrets, and other proprietary rights of Consultant in the Proprietary Information during and after the term of this Agreement, and shall at all times maintain complete confidentiality with regard to the Proprietary Information provided to Contractor, subject to federal, state and local laws related to public disclosure. Contractor further acknowledges that a breach of any of the terms of this Agreement by Contractor will result in irreparable harm to Consultant for which monetary damages would be an inadequate remedy, and Consultant shall be entitled to injunctive relief (without the necessity of posting a bond) as well as all other monetary remedies available at law or

**NATIONAL JOINT POWERS ALLIANCE®**  
Book 1 – Project Information, Instructions to Bidders and Execution Documents

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equity. In the event that it becomes necessary for either party to this IQCC System License to enforce the provisions of this Agreement or to obtain redress for the breach or violation of any of its provisions, whether by litigation, arbitration or other proceedings, the prevailing party shall be entitled to recover from the other party all costs and expenses associated with such proceedings, including reasonable attorney's fees.

In the event of a conflict in terms and conditions between this IQCC System License and any other terms and conditions of this Agreement or any Job Order purchase order or similar purchasing document issued by NJPA or an NJPA Member, this IQCC System License shall take precedence.


IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

By:

National Joint Powers Alliance

  
\_\_\_\_\_  
Authorized Signature

Contractor VINCOR CONSTRUCTION INC

  
\_\_\_\_\_  
Authorized Signature

Vincent Cortes  
\_\_\_\_\_  
Print Name

Contract Number: CA-GC07C-D82013-VCL (assigned by NJPA)



**Work Order Signature Document**

**EZIQC Contract No.: CA-GC07C-082013-VCI**

**New Work Order**       **Modify an Existing Work Order**

**Work Order #:** eziQC-VCI-FM08430000042      **Work Order Date:** 03/24/2016

**Work Order Title:** RUMC Fire Alarm Up-Grade Project

**Owner Name:** EDA County of Riverside      **Contractor Name:** Vincor Construction Inc.

**Contact:** Nahid Selbe      **Contact:** John Kang

**Phone:** 951-955-4728      **Phone:** 714-990-4200

**Work to be Performed**

Work to be performed as per the Final Detailed Scope of Work Attached and as per the terms and conditions of NJPA EZIQC Contract No CA-GC07C-082013-VCI.

Brief Work Order Description:

Fire Alarm Up-Grade Project

**Time of Performance**      **Estimated Start Date:** 06/13/2016  
**Estimated Completion Date:** 12/16/2016

**Liquidated Damages**      Will apply:       Will Not apply:

**Work Order Firm Fixed Price: \$720,355.73**

## Detailed Scope of Work

**To:** John Kang  
 Vincor Construction Inc.  
 1609 E. McFadden Avenue, Suite A  
 Santa Ana, CA 92705  
 714-990-4200

**From:** Nahid Selbe  
 EDA County of Riverside  
 3403 Tenth St. Suite 500  
 Riverside, CA 92501  
 951-955-4728

**Date Printed:** March 24, 2016

**Work Order #:** ezIQc-VCI-FM08430000042

**Work Order Title:** RUMC Fire Alarm Up-Grade Project

**Brief Scope:** Fire Alarm Up-Grade Project

Preliminary

Revised

Final

The following items detail the scope of work as discussed at the site. All requirements necessary to accomplish the items set forth below shall be considered part of this scope of work.

### Fire Alarm - Main:

1. TRL will remove and upgrade existing Fire Alarm Life-Safety System Panels.
  - a) This will include new technology, current model EST3 Fire Alarm Control Panels.
  - b) New power supplies and remote booster power supplies as necessary.
  - c) Proper interface between field devices and the FACP's will be provided via AADC loop cards which are specifically designed to interface with new fire alarm control panels and the existing field devices which RUHS currently has in place.
  - d) Utilization of the SSDC cards as included will allow any future unit or TI projects to take advantage of and use current FACP technology.
  - e) All programming and testing of the new equipment is also included.
  - f) An allowance has been provided as old existing field devices are tested and may no longer function as needed.
  - g) CAD files will be provided upon project completion.
  - h) New smoke devices will be installed in electrical rooms as required by code.
2. Demo and remove existing counter top, TV and TV mounts in security room per plan.
3. New J boxes and emt conduit will be provided and installed for new smoke devices in Electrical Rooms as required by code.
4. Replace existing breakers per plan as shown on E 0.03.
5. Provide 3/4" conduit run from communication closet D1105 and terminate cables on existing telephone backboard per note 1 E 0.03.
6. Provide 1" conduit w/ communication cable up to printer location per note 9 on E 0.03.
7. Patch and repair to match existing (1) 1 hour fire rated wall approximately 4 x 8 area in each Electrical rooms to level 4 finish.
8. Prime and paint to match existing (1) wall approximately 18' x 16' in each Electrical Room where old equipment was removed.
9. Build containment with negative pressure machines while work that produces dust or contaminants is ongoing in 10 electrical rooms and during the conduit run for communication closet to telephone backboard per note 1 E0.03.
10. Provide fire stopping for all new penetrations and existing non-compliant conditions in the (9) electrical rooms. The electrical room next to PBX is excluded due to T-bar ceiling and extensive investigation that would be needed.
11. Install drip pan per RFI 1R1 for existing plumbing lines in the electrical rooms with exposed ceilings. Excluding electrical room next to PBX due to T-Bar ceiling and extensive investigation would be required.
12. All fire watch will be provided by RUMC per plans.
13. Re-use existing conduit for annunciators, FAA-1 and FAA-2 being fed from electrical room E0127 per RFI#4.
14. Provide new gutters in electrical rooms as per TRL's panel mounting detail.

### Security Room Fire Alarm:

*Detailed Scope of Work Continued.*

**Work Order #:** ezlQC-VCI-FM08430000042  
**Work Order Title:** RUMC Fire Alarm Up-Grade Project

15. Relocate existing CCTV system cabling within the security room designated at electrical room E1147, which houses CCTV cabling, DVR's and rack units as referenced on project plans.
16. Extend cabling to multiple existing DVRs within existing racks in order to accommodate the relocation of racks and DVR Equipment.
17. Verify and document camera signal, picture and or image quality prior to work commencing and after work has been completed.
18. Install new cable tray and migrate cables to cable tray as necessary for cable routing.
19. Demo (2) existing lights and install (2) new lights per plan with all necessary circuitry, conduit and bracing required per plan.
20. Acquire a structural engineer as indicated on the project plans to verify existing structural conditions and provide details for seismic bracing for new cable tray and existing DVR Racks.
21. Install new seismic bracing for new cable tray and existing DVR Racks.

**Clarifications:**

Any additional work due to unforeseen conditions will be treated as a supplemental to the work order.  
Fire Alarm Devices/Equipment Quantities are based on TRL's Systems Value Added Configuration Recommendation.


**Warranties:**

The Contractor agrees to provide all warranties described in the contact documents, project Specifications titled, RCRMC Fire Alarm Upgrade and dated, May 28, 2015 as well as all warranty work required by the State Contractor's License Board. Also, special or extended warranties included in this Work Order are listed below and included in the contract: No special or extended warranties are part of this work order.

**Approvals**

As per Associated Standard form of Construction Contract Between County & Contractor.

Signatures below acknowledge review..

  
\_\_\_\_\_  
Contractor

6/2/16  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Owner - Project Manager

4.6.2016  
\_\_\_\_\_  
Date



**EZIQC WORK ORDER  
CONSTRUCTION CONTRACT  
BETWEEN COUNTY AND CONTRACTOR**

by and between

**THE COUNTY OF RIVERSIDE**

(the "County")

And

**VINCOR CONSTRUCITON, INC.**

(the "Contractor")

FOR:

**RIVERSIDE UNIVERSITY MEDICAL CENTER  
FIRE ALARM UPGRADE PROJECT  
WORK ORDER NO. EZIQC-VCI-FM0843000042**

LOCATED AT:

**26520 CACTUS AVENUE,  
MORENO VALLEY, CA 92555**

**EZIQC WORK ORDER CONSTRUCTION CONTRACT FOR EZIQC**  
**BETWEEN COUNTY AND CONTRACTOR**

**THIS EZIQC WORK ORDER CONSTRUCTION CONTRACT BETWEEN COUNTY AND CONTRACTOR** ("Work Order Agreement") is entered into as of the date of the last signature on the signature page of this contract, by and between **THE COUNTY OF RIVERSIDE**, a political subdivision of the State of California ("County") and Vincor Construction, Inc., a Corporation ("Contractor"), whose principal place of business is located at 2707 Saturn Road, Brea, CA 92821.

**ARTICLE 1**  
**DEFINITIONS**

Capitalized terms used in the Contract Documents shall have the meanings assigned to them in the Supplementary General Conditions. If not defined in the Supplementary General Conditions, they shall have the meanings assigned to them elsewhere in the Contract Documents. If not defined in the Supplementary General Conditions or elsewhere, they shall have the meanings reasonably understood to apply to them by the context in which they are used.

**ARTICLE 2**  
**PERFORMANCE OF WORK**

**2.1 SCOPE OF WORK**

Contractor shall execute the entire Work called for by the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

**2.2 STANDARD OF PERFORMANCE**

In addition to and without limiting Contractor's other obligations under the Contract Documents, Contractor shall at all times in its performance of its obligations under the Contract Documents conform to the following general standards of performance:

2.2.1 the requirements of the Contract Documents;

2.2.2 the requirements and conditions of Applicable Laws;

2.2.3 the standard of care applicable to those who provide construction of the type called for by this Construction Contract for projects of a scope and complexity comparable to the Project;

2.2.4 Contractor shall furnish efficient business administration of the Work, utilizing sufficient senior level management and other qualified personnel to manage the Work; and

2.2.5 Contractor shall apply its best and highest skill and attention to completing the Work in an expeditious and economical manner, consistent with the expressed best interests of the County and within the limitations of the Contract Price and Contract Time.

**ARTICLE 3**  
**CONTRACT TIME**

**3.1 CONTRACT TIME**

3.1.1 **Substantial Completion.** Subject to Contract Adjustments permitted by the Contract Documents, Contractor shall achieve Substantial Completion of the entire Work not later than One Hundred Eighty, (180) Days after the Date of Commencement.



**3.1.2 Final Completion.** Subject to Contract Adjustments permitted by the Contract Documents, Contractor shall achieve Final Completion of the Work not later than Sixty (60) Calendar Days after the actual occurrence of Substantial Completion.

**3.1.3 Contract Adjustments.** The Contract Time shall be extended or shortened only in accordance with the provisions of the Contract Documents governing Contract Adjustments to the Contract Time.

### **3.2 LIQUIDATED DAMAGES TO COUNTY**

**3.2.1 County's Right.** County and Contractor acknowledge that if Contractor fails to Substantially Complete the Work within the Contract Time for Substantial Completion, County will suffer substantial Losses, which would be both extremely difficult and impracticable to ascertain. On that basis they agree, as a reasonable estimate of those Losses and not a penalty, to the assessment and recovery by County of liquidated damages under this Section 3.2.

**3.2.2 Per Diem Rate.** If Contractor fails to actually achieve Substantial Completion of the entire Work within the Contract Time for Substantial Completion, Contractor shall pay to County as liquidated damages the amount of One Thousand Dollars (\$1,000) per Day for each Day occurring after the expiration of the Contract Time for Substantial Completion until Contractor achieves Substantial Completion of the entire Work.

**3.2.3 Adjustment for Extensions of Time.** Subject to the provisions of Paragraph 8.2.8 of the Supplementary General Conditions dealing with concurrency of Delays, liquidated damages shall not be charged to Contractor for a period of time for which the Contractor is entitled under the Contract Documents to a Contract Adjustment to the Contract Time for Substantial Completion.

**3.2.4 Partial Completion.** The liquidated damages provided for under this Section 3.2 shall not be reduced or apportioned: (1) for Substantial Completion of portions of the Work prior to Substantial Completion of the entirety of the Work; or (2) if portions of the Work are deleted pursuant to (a) the County's right to order Deleted Work; or (b) a termination by County of a portion of the Construction Contract or a deletion of portion of Work for the convenience of the County or due to an Event of Contractor Default.

**3.2.5 Remedies.** County may deduct any liquidated damages payable under this Section 3.2 from money due or to become due to Contractor under the Contract Documents, or pursue any other legal remedy to collect such liquidated damages from Contractor and/or its Surety.

**3.2.6 Not a Limitation.** County's rights under this Section 3.2 shall not be interpreted as precluding or limiting: (1) any right or remedy of County arising from an Event of Contractor Default other than a failure to achieve Substantial Completion of the Work within the Contract Time for Substantial Completion; or (2) County's right to order an acceleration, at Contractor's Own Expense, of performance of the Work to overcome Delay, including, without limitation, a Delay for which County has the right to assess liquidated damages under this Section 3.2.

### **3.3 LIQUIDATED DAMAGES TO CONTRACTOR**

**3.3.1 Contractor's Right.** County and Contractor acknowledge and agree that if Contractor is unable due to Compensable Delay to actually achieve Substantial Completion of the Work within the Contract Time for Substantial Completion, Contractor and its affected Subcontractors will suffer Losses that would be both extremely difficult and impracticable to ascertain. On that basis they agree, as a reasonable estimate of those Losses and not a penalty, to the payment by County to Contractor of liquidated damages under this Section 3.3.

**3.3.2 Daily Rate.** Subject to the provisions of Paragraph 8.2.8 of the Supplementary General Conditions dealing with concurrency of Delays, the Contract Price shall be increased by Change Order or Unilateral Change Order in the amount of Five Hundred Dollars (\$500) per Day as liquidated damages for each Day for which Contractor is entitled under the Contract Documents to a Contract Adjustment extending the Contract Time for Substantial Completion due to Compensable Delay, with no additional amount added thereto or calculated thereon for Allowable Markup or any other markup for overhead or profit to Contractor or any Subcontractor, of any Tier.

**3.3.3 Payment by County.** A Change Order or Unilateral Change Order setting forth a Contract Adjustment to the Contract Price for liquidated damages permitted by this Section 3.3 shall be executed following, and not before, actual Substantial Completion and prior to or contemporaneously with Final Completion. Notwithstanding any other provision of the Contract Documents to the contrary and without limitation to the County's rights of withholding payment to Contractor as permitted elsewhere in the Contract Documents or under Applicable Laws, any amounts due to the Contractor under this Section 3.3 shall be payable as part of, and not prior to the due date for payment of, Final Payment to Contractor.

**3.3.4 Deleted Work.** A Contract Adjustment shall be made pursuant to Subparagraph 8.2.6.2 of the Supplementary General Conditions reducing the Contract Price and Contract Time in the event that the Contract Time is shortened due to (1) Deleted Work; or (2) a termination by County of a portion of the Construction Contract for convenience or due to an Event of Contractor Default.

**3.3.5 Termination.** County shall have no liability to Contractor to pay any liquidated damages under this Section 3.3, nor shall County have any other liability to Contractor or any Subcontractor for any Loss due to Delay (including, without limitation, Compensable Delay) in the event the Construction Contract is wholly terminated (whether such termination is a termination for cause by County or Contractor or a termination for convenience by County) at any time prior to expiration of the Contract Time for Substantial Completion set forth in Paragraph 3.1.1, above.

**3.3.6 Exclusive Remedy.** Liquidated damages payable by County under this Section 3.3 constitute the Contractor's sole and exclusive right and remedy for recovery from County of Losses to Contractor and its Subcontractors, of every Tier, that are attributable to Compensable Delay, regardless of the cause, duration or timing of the Compensable Delay and no other Contract Adjustment, or other form of compensation or reimbursement, of any kind, shall be made to Contractor or any Subcontractor, of any Tier, for any Loss resulting, directly or indirectly, from, or attributable to, any of the following: (1) Unexcused Delay or acceleration to overcome Unexcused Delay; (2) Excusable Delay or any acceleration not authorized by County in writing to overcome Excusable Delay; or (3) concurrency of a Compensable Delay with any different type or class of Unexcused Delay or Excusable Delay, whether such concurrency is a concurrency in cause or in effect.

**3.3.7 WAIVER BY CONTRACTOR.**

**CONTRACTOR WAIVES THE RIGHT TO FURTHER RECOURSE OR RECOVERY OF COSTS OR DAMAGES BY REASON OF OR RELATED TO ANY DELAY (INCLUDING, WITHOUT LIMITATION, COMPENSABLE DELAY) THAT IS IN EXCESS OF OR NOT RECOVERED BY CONTRACTOR AS PART OF THE LIQUIDATED DAMAGES PAYABLE TO CONTRACTOR UNDER THIS SECTION 3.3.**

**ARTICLE 4  
CONTRACTOR COMPENSATION**

**4.1 CONTRACT PRICE**

**4.1.1 Contract Price.** County shall pay the Contractor in current funds for the Contractor's performance of the Work in accordance with the Contract Documents the Contract Price, exclusive of Contract Adjustments, of Seven Hundred Twenty Thousand, Three Hundred Fifty Six Dollars (\$720,356).

**4.1.2 Basis.** The Contract Price set forth in Paragraph 4.1.1, above, is based on the Work Order submitted by Contractor and accepted by County as set forth in Section 4.2, below. This Work Order Agreement is the Purchase Order issued by an NJPA member as referenced in the Indefinite Quantity Construction Agreement between the Contractor and NJPA; and, as that document states, any Purchase Order issued by an NJPA member including terms and conditions and supplemental specs shall govern.

**4.1.3 Adjustments.** The Contract Price is only subject to adjustment as permitted by the Supplementary General Conditions for Contract Adjustments due to Compensable Changes, Deleted Work or Compensable Delay.

**4.1.4 All-Inclusive Price.** The Contract Price as adjusted for Contract Adjustment permitted by the Contract Documents is the total amount payable by County to Contractor for performance of the Work under the Contract

Documents and is deemed to cover all Losses, foreseeable or unforeseeable, arising out of or related to past, present or future circumstances within or outside the control of the Contractor or its Subcontractors affecting the time or cost of performing the Work, including, without limitation, the effects of natural elements upon the Work, unforeseen difficulties or obstructions affecting the performance of the Work (including, without limitation, unforeseen conditions at the Site that do not constitute Differing Site Conditions) and unforeseen fluctuations in market conditions and price escalations (whether occurring locally, nationally or internationally).

**4.2 ALTERNATES**

The Contract Price includes the following Alternates, which are described in the Contract Documents and are hereby accepted by County:

Number	Description	Dollar Amount
N/A	N/A	N/A

**4.3 UNIT PRICES**

Unit prices agreed to by County and Contractor are as follows:

Description	Measurement Unit	Dollar Amount
N/A	N/A	N/A

**ARTICLE 5  
ENUMERATION OF CONTRACT DOCUMENTS**

**5.1 LIST OF CONTRACT DOCUMENTS**

The Contract Documents include, without limitation, the following:

**5.1.1 Construction Contract.** The Contract Documents include this executed EZIQC Work Order Construction Contract Between County and Contractor.

**5.1.2 General Conditions.** The Contract Documents include the  NJPA IQCC Standard Terms and Conditions and Contract General Conditions (Book 2),  Supplementary General Conditions of the Standard Form of Construction Contract for EZIQC Between County and Contractor (Long Form) or  Supplementary General Conditions of the Work Order Construction Contract Between County and Contractor (Short Form).

**5.1.3 Specifications.** The Contract Documents include the following Specifications:

Title	Date	Divisions
RCRMC Fire Alarm Upgrade	May 2015	260110 – Basic Electrical Materials & Methods 283100 – Digital Addressable Fire Alarm System

**5.1.4 Drawings.** The Contract Documents include the following Drawings dated May 28, 2015 and January 20, 2016 unless a different date is shown below:

Sheet Number	Title	Date	Pages
All sheets included in the referenced drawing set	RCRMC Fire Alarm Upgrade	May 28, 2015	Sixteen (16) plan sheets
All sheets included in the referenced drawing set	RCRMC Security Room Cable Relocation	January 20, 2016	Four (4) plan sheets

5.1.5 Also incorporated herein are:

- 5.1.5.1. NJPA Membership Agreement (executed)
- 5.1.5.2. NJPA Indefinite Quantity Construction Agreement
- 5.1.5.3. NJPA Invitation to bid (IFB) Documents
- 5.1.5.4. NJPA Project Information, Instructions to Bidders and Execution Documents (Book 1)
- 5.1.5.5. EZIQC Work Order & Detailed Scope Documents

**ARTICLE 6  
SPECIAL REQUIREMENTS**

**6.1 LABOR CODE SECTION 1861 CERTIFICATION**

By signing below, Contractor certifies that he/she/it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of the California Labor Code, and that he/she/it will comply with such provisions before commencing the performance of the Work.

**CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS' STATE LICENSE BOARD WHICH HAS JURISDICTION TO INVESTIGATE COMPLAINTS AGAINST CONTRACTORS IF A COMPLAINT REGARDING A PATENT ACT OR OMISSION IS FILED WITHIN FOUR YEARS OF THE DATE OF THE ALLEGED VIOLATION. A COMPLAINT REGARDING A LATENT ACT OR OMISSION PERTAINING TO STRUCTURAL DEFECTS MUST BE FILED WITHIN 10 YEARS OF THE DATE OF THE ALLEGED VIOLATION. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS' STATE LICENSE BOARD, P.O. BOX 26000, SACRAMENTO, CALIFORNIA, 95826.**

IN WITNESS WHEREOF, the parties hereto have made and executed four (4) originals of this Construction Contract, on \_\_\_\_\_ [to be filled in by Clerk of the Board].

[SIGNATURES ON FOLLOWING PAGE

**"COUNTY"**

COUNTY OF RIVERSIDE

By: [Signature] Dated JUN 21 2016

JOHN J. BENOIT  
Chairman, Board of Supervisors

**ATTEST:**

KECIA HARPER-IHEM  
Clerk of the Board

By: [Signature] Dated JUN 21 2016  
Deputy

(SEAL)

**APPROVED AS TO FORM:**

GREGORY P. PRIAMOS  
County Counsel

By: [Signature] Dated 5/27/16  
Marsha L. Victor  
Principal Deputy County Counsel

**"CONTRACTOR"**

Vincor Construction, Inc.

[Signature]  
(sign on line above)

By: Vincent Cortes  
(type name)

Title: President

The following information must be provided concerning the Contractor:

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

If "other", enter legal form of business:  
n/a

Enter address:

Vincor Construction Inc  
2707 Saturn Street  
Brea CA 92821

Telephone: 714-528-2900

Facsimile: 714-528-2901

Email: vincent@vincorinc.com

Employer State 236-3021-3  
Tax ID #:

State Contractor License #: 763743

DIR Registration #: 100009803

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

If Contractor is a corporation, state:  
Name of President: Vincent Cortes  
Name of Secretary: Michele Cortes  
State of Incorporation: California

Bond No. S001-2622

## **PAYMENT BOND**

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

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the County of Riverside ("County") by action of the Board of Supervisors has awarded Construction Contract Number EZIQC-VCI-FM08430000042 ("Contract") to Vincor Construction, Inc. as Principal ("Principal") to perform the work ("Work") for the Riverside University Medical Center Fire Alarm Upgrade 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 Allied World Insurance Company ("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 Seven Hundred Twenty Thousand Three Hundred Fifty Six Dollars and no cents Dollars (\$ 720,356.00), 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, and also will pay to the prevailing party if suit is brought upon this bond, reasonable attorney's fees as provided in California Civil Code, Section 9564.

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.

07-28-15

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.

VINCOR CONSTRUCTION, INC.

(Firm Name – Principal)

2707 SATURN STREET  
BREA, CA 92821

(Business Address)

By

(Original Signature)

(Title)

ALLIED WORLD INSURANCE COMPANY

(Corporation Name – Surety)

30 S. 17TH STREET SUITE 810  
PHILADELPHIA, PA 19103

(Business Address)

By

(Signature – Attached Notary's Acknowledgment)

MONICA BLAISDELL (ATTORNEY-IN-FACT)

ATTORNEY-IN-FACT

(Title-Attach Power of Attorney)



Affix Seal of Corporation

Affix Corporate Seal

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





# Allied World Surety

Division of Allied World Insurance Company  
30 S. 17<sup>th</sup> St., Suite 810  
Philadelphia, PA 19103

## POWER OF ATTORNEY

Issue Date: April 6, 2016

No. 42587-A1053

Single Transaction Limit: \$10,000,000

### KNOW ALL MEN BY THESE PRESENTS:

Allied World Insurance Company, a New Hampshire corporation (the "Company") does hereby appoint

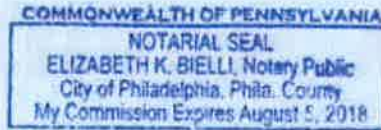
NAME(s): Monica Blaisdell

FIRM: Blaisdell Bonding and Insurance Services, Inc. 770 S. Brea Blvd. Suite 205 Brea, CA 92821

Its true and lawful Attorney(s)-in-Fact, with full authority to execute on its behalf bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, issued in the course of its business, and to bind the Company thereby. This Power of Attorney shall remain in full force and effect for one year from the issued date above-referenced and shall expire on close of business of the first anniversary of such Issue Date.

IN WITNESS WHEREOF, ALLIED WORLD INSURANCE COMPANY has caused these presents to be executed by the officer named below, who is duly authorized and empowered to execute on the Company's behalf.

This 6th day of April, 2016



Title: Senior Vice President - Surety

State of Pennsylvania )  
County of Philadelphia )ss.

On this 6th day of April, 2016, before me came the above-named officer of ALLIED WORLD INSURANCE COMPANY, to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seals of said corporation thereto by authority of his office.

Notary  
My Commission Expires: 08/05/2018

### CERTIFICATE

Excerpt of Resolution adopted by the Board of Directors of the ALLIED WORLD INSURANCE COMPANY (the "Corporation"), on December 31, 2012:

RESOLVED, that the proper officers of the Corporation, the head of the surety business line for the Corporation and their appointed designees (each an "Authorized Officer" and collectively, the "Authorized Officers") be, and each hereby is, authorized to appoint one or more Attorneys-in-Fact to represent and act for and on behalf of the Corporation in the transaction of the Company's surety business to execute (under the common seal of the Corporation, if appropriate) bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof.

RESOLVED, that in connection with the Corporation's transaction of surety business, the signatures and attestations of the Authorized Officers and the seal of the Corporation may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Corporation when so affixed with respect to any bond, undertaking, recognizance or other contract of indemnity or writing obligatory in the nature thereof.

RESOLVED, that in connection with the Corporation's transaction of surety business, the facsimile or mechanically reproduced signature of any Authorized Officer, whether made heretofore or hereafter, wherever appearing upon a copy of any Power of Attorney of the Corporation, with signatures affixed as next above noted, shall be valid and binding upon the Corporation with the same force and effect as though manually affixed.

RESOLVED, that in connection with the Corporation's transaction of surety business, any such Attorney-in-Fact delivering a secretarial or other certification that the foregoing resolutions still be in effect may insert in such certification the date thereof, said date to be not later than the date of delivery thereof by such Attorney-in-Fact.

RESOLVED, that the Authorized Officers be, and each hereby is, authorized to execute (under the common seal of the Corporation, if appropriate), make, file and deliver in the name and on behalf of the Corporation any and all consents, certificates, agreements, amendments, supplements, instruments and other documents whatsoever, and do any and all other things whatsoever in connection with the Corporation's transaction of surety business, as such Authorized Officer shall in his or her absolute discretion deem or determine appropriate and any of the foregoing resolutions, the transactions contemplated thereby and any ancillary matters thereto and/or to carry out the purposes and intent thereof, such deeming or determination to be conclusively evidenced by any such execution or the taking of any such action by such Authorized Officer.

I, **Timothy J. Curry**, Secretary of the ALLIED WORLD INSURANCE COMPANY, do hereby certify that the foregoing excerpts of Resolution adopted by the Board of Directors of this corporation, and the Power of Attorney issued pursuant thereto, are true and correct, and that both the Resolution and the Power of Attorney are in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of the corporation, this 7 day of April, 2016.

Timothy J. Curry, Secretary



**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

**CIVIL CODE § 1189**

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 ORANGE )

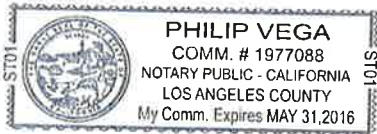
On 4/7/2016 before me, PHILIP VEGA, NOTARY PUBLIC  
*Date Here Insert Name and Title of the Officer*

personally appeared MONICA BLAISDELL  
*Name(s) of Signer(s)*

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~~/~~its~~ authorized capacity(ies), and that by his/~~her~~/~~its~~ 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 \_\_\_\_\_  
*Signature of Notary Public*

*Place Notary Seal Above*

**OPTIONAL**

*Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.*

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_

Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

Corporate Officer — Title(s): \_\_\_\_\_

Partner —  Limited  General

Individual  Attorney in Fact

Trustee  Guardian or Conservator

Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

Corporate Officer — Title(s): \_\_\_\_\_

Partner —  Limited  General

Individual  Attorney in Fact

Trustee  Guardian or Conservator

Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

**CIVIL CODE § 1189**

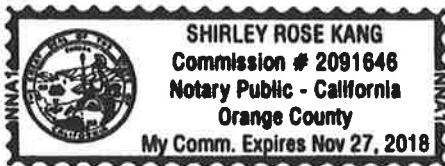
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )  
County of Orange )  
On April 12, 2016 before me, Shirley Rose Kang, Notary Public,  
Date Here Insert Name and Title of the Officer  
personally appeared Michele Cartes  
Name(s) of Signer(s)

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 [Handwritten Signature]  
Signature of Notary Public

Place Notary Seal Above

**OPTIONAL**

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_

Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

- Corporate Officer — Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Individual  Attorney in Fact
- Trustee  Guardian or Conservator
- Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

- Corporate Officer — Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Individual  Attorney in Fact
- Trustee  Guardian or Conservator
- Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

Bond No. S001-2622

**PERFORMANCE BOND**

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

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the County of Riverside ("County") by action of the Board of Supervisors has awarded Construction Contract Number EZIQC-VCI-FM08430000042 ("Contract") to Vincor Construction, Inc. as Principal ("Principal") to perform the work ("Work") for the Riverside University Medical Center Fire Alarm Upgrade project, which Contract is by this reference hereby incorporated herein and made a part hereof;

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 Allied World Insurance Company ("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 Seven Hundred Twenty Thousand Three Hundred Fifty Six Dollars and no cents ----- Dollars (\$ 720,356.00 ), 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 County, 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.

In the event any legal proceeding or arbitration is brought upon this bond by County and judgment or award is entered in favor of County as the prevailing party, Surety shall pay all costs and attorney's fees incurred by the County.

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**

---

VINCOR CONSTRUCTION, INC.

(Firm Name – Principal)

2707 SATURN STREET  
BREA, CA 92821

(Business Address)

By

(Original Signature)

CORP SECTY

(Title)

Allied World Insurance Company

(Corporation Name – Surety)

30 S. 17th Street Suite 810  
Philadelphia, PA 19103

(Business Address)

By

(Signature – Attached Notary's Acknowledgment)

Monica Blaisdell (Attorney-In-Fact)

ATTORNEY-IN-FACT

(Title-Attach Power of Attorney)



Affix Corporate Seal

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



# Allied World Surety

Division of Allied World Insurance Company  
30 S. 17<sup>th</sup> St., Suite 810  
Philadelphia, PA 19103

## POWER OF ATTORNEY

Issue Date: December 9, 2015

No. 42587-A1045

Single Transaction Limit: \$10,000,000

### KNOW ALL MEN BY THESE PRESENTS:

Allied World Insurance Company, a New Hampshire corporation (the "Company") does hereby appoint

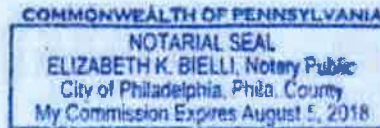
NAME(s): Monica Blaisdell

FIRM: Blaisdell Bonding and Insurance Services, Inc. 770 S. Brea Blvd. Suite 205 Brea, CA 92821

Its true and lawful Attorney(s)-in-Fact, with full authority to execute on its behalf bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, issued in the course of its business, and to bind the Company thereby. This Power of Attorney shall remain in full force and effect for one year from the issued date above-referenced and shall expire on close of business of the first anniversary of such Issue Date.

IN WITNESS WHEREOF, ALLIED WORLD INSURANCE COMPANY has caused these presents to be executed by the officer named below, who is duly authorized and empowered to execute on the Company's behalf.

This 9th day of December, 2015



Title: Senior Vice President - Surety

State of Pennsylvania )  
County of Philadelphia )ss.

On this 9th day of December, 2015, before me came the above-named officer of ALLIED WORLD INSURANCE COMPANY, to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seals of said corporation thereto by authority of his office.

Notary

My Commission Expires: 08/05/2018

### CERTIFICATE

Excerpt of Resolution adopted by the Board of Directors of the ALLIED WORLD INSURANCE COMPANY (the "Corporation"), on December 31, 2012:

RESOLVED, that the proper officers of the Corporation, the head of the surety business line for the Corporation and their appointed designees (each an "Authorized Officer" and collectively, the "Authorized Officers") be, and each hereby is, authorized to appoint one or more Attorneys-in-Fact to represent and act for and on behalf of the Corporation in the transaction of the Company's surety business to execute (under the common seal of the Corporation, if appropriate) bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof.

RESOLVED, that in connection with the Corporation's transaction of surety business, the signatures and attestations of the Authorized Officers and the seal of the Corporation may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Corporation when so affixed with respect to any bond, undertaking, recognizance or other contract of indemnity or writing obligatory in the nature thereof.

RESOLVED, that in connection with the Corporation's transaction of surety business, the facsimile or mechanically reproduced signature of any Authorized Officer, whether made heretofore or hereafter, wherever appearing upon a copy of any Power of Attorney of the Corporation, with signatures affixed as next above noted, shall be valid and binding upon the Corporation with the same force and effect as though manually affixed.

RESOLVED, that in connection with the Corporation's transaction of surety business, any such Attorney-in-Fact delivering a secretarial or other certification that the foregoing resolutions still be in effect may insert in such certification the date thereof, said date to be not later than the date of delivery thereof by such Attorney-in-Fact.

RESOLVED, that the Authorized Officers be, and each hereby is, authorized to execute (under the common seal of the Corporation, if appropriate), make, file and deliver in the name and on behalf of the Corporation any and all consents, certificates, agreements, amendments, supplements, instruments and other documents whatsoever, and do any and all other things whatsoever in connection with the Corporation's transaction of surety business, as such Authorized Officer shall in his or her absolute discretion deem or determine appropriate and any of the foregoing resolutions, the transactions contemplated thereby and any ancillary matters thereto and/or to carry out the purposes and intent thereof, such deeming or determination to be conclusively evidenced by any such execution or the taking of any such action by such Authorized Officer.

I, **Timothy J. Curry**, Secretary of the ALLIED WORLD INSURANCE COMPANY, do hereby certify that the foregoing excerpts of Resolution adopted by the Board of Directors of this corporation, and the Power of Attorney issued pursuant thereto, are true and correct, and that both the Resolution and the Power of Attorney are in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of the corporation, this 7 day of April, 2016.

Timothy J. Curry, Secretary



**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

**CIVIL CODE § 1189**

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 ORANGE )

On 4/7/2016 before me, PHILIP VEGA, NOTARY PUBLIC  
*Date Here Insert Name and Title of the Officer*

personally appeared MONICA BLAISDELL  
*Name(s) of Signer(s)*

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/~~its~~ authorized capacity(ies), and that by ~~his~~/her/~~its~~ 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 \_\_\_\_\_  
*Signature of Notary Public*

*Place Notary Seal Above*

**OPTIONAL**

*Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.*

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_

Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

Corporate Officer — Title(s): \_\_\_\_\_

Partner —  Limited  General

Individual  Attorney in Fact

Trustee  Guardian or Conservator

Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

Corporate Officer — Title(s): \_\_\_\_\_

Partner —  Limited  General

Individual  Attorney in Fact

Trustee  Guardian or Conservator

Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

**CIVIL CODE § 1189**

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 Orange )  
On April 17 2016 before me, Shirley Rose Kang, Notary Public,  
Date Here Insert Name and Title of the Officer  
personally appeared Michele Cortes  
Name(s) of Signer(s)

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 [Handwritten Signature]  
Signature of Notary Public

Place Notary Seal Above

**OPTIONAL**

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_

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**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

Corporate Officer — Title(s): \_\_\_\_\_

Partner —  Limited  General

Individual  Attorney in Fact

Trustee  Guardian or Conservator

Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

Corporate Officer — Title(s): \_\_\_\_\_

Partner —  Limited  General

Individual  Attorney in Fact

Trustee  Guardian or Conservator

Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_





- Company Profile
- Company Search
- Company Information
- Old Company Names
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- Reference Information
- NAIC Group List
- Lines of Business
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- Complaint and Request for Action/Appeals
- Contact Information
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  - Find A Company Representative In Your Area
  - View Financial Disclaimer

**COMPANY PROFILE**

**Company Information**

**ALLIED WORLD INSURANCE COMPANY**  
**199 WATER STREET, 24TH FLOOR**  
**NEW YORK, NY 10038**

Old Company Names	Effective Date
ALLIED WORLD REINSURANCE COMPANY	05/22/2013
CONVERIUM INSURANCE (NORTH AMERICA) INC.	04/29/2009
RE CAPITAL REINSURANCE CORPORATION	12/28/1995
ZC INSURANCE COMPANY	08/16/2002

**Agent For Service**

KARISSA LOWRY  
 2710 GATEWAY OAKS DRIVE  
 SUITE 150N  
 SACRAMENTO CA 95833

**Reference Information**

NAIC #:	22730
California Company ID #:	3186-4
Date Authorized in California:	12/21/1988
License Status:	UNLIMITED-NORMAL
Company Type:	Property & Casualty
State of Domicile:	NEW HAMPSHIRE

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**NAIC Group List**

NAIC Group #: 3239 Allied World Assur Holding Grp

**Lines Of Business**

The company is authorized to transact business within these lines of insurance. For an explanation of any of these terms, please refer to the glossary.

- AIRCRAFT
- AUTOMOBILE
- BOILER AND MACHINERY
- BURGLARY
- COMMON CARRIER LIABILITY
- CREDIT
- FIRE
- LIABILITY

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MARINE  
MISCELLANEOUS  
PLATE GLASS  
SPRINKLER  
SURETY  
TEAM AND VEHICLE  
WORKERS' COMPENSATION

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**CONTRACTOR'S CERTIFICATE REGARDING WORKERS'**  
**COMPENSATION**

Labor Code Section 3700 states:

"Every employer except the state shall secure the payment of compensation in one or more of the following ways:

(a) By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this state.

(b) By securing from the Director of Industrial Relations a certificate of consent to self-insure either as an individual employer, or as one employer in a group of employers, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employee.

(c) For any county, city, city and county, municipal corporation, public district, public agency, or any political subdivision of the state, including each member of a pooling arrangement under a joint exercise of powers agreement (but not the state itself), by securing from the Director of Industrial Relations a certificate of consent to self-insure against workers' compensation claims, which certificate may be given upon furnishing proof satisfactory to the director of ability to administer workers' compensation claims properly, and to pay workers' compensation claims that may become due to its employees. On or before March 31, 1979, a political subdivision of the state which, on December 31, 1978, was uninsured for its liability to pay compensation, shall file a properly completed and executed application for a certificate of consent to self-insure against workers' compensation claims. The certificate shall be issued and be subject to the provisions of Section 3702.

For purposes of this section, 'state' shall include the superior courts of California."

I am aware of the provisions of Section 3700 of the California 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.

Vincor Construction, Inc.

\_\_\_\_\_  
(Name of Contractor)

President

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

Vincent Cortes

\_\_\_\_\_  
(Name of Signer)

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

(In accordance with Article 5 (commencing at Section 1860), Chapter 1, Part 7, Division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any work under this contract.)



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) <b>05/13/2016</b>
--

**THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.**

**IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).**

<b>PRODUCER</b> 657-667-0225      657-667-0227 Pacific Lighthouse Insurance Agency. 625 The City Drive South, Suite 330 Orange, CA 92868	<b>CONTACT NAME:</b> Erica Hernandez <b>PHONE (A/C, No, Ext):</b> 657-667-0225 <b>FAX (A/C, No):</b> 657-667-0227 <b>E-MAIL ADDRESS:</b> Erica@PacificLighthouseins.com														
<b>INSURED</b> (714) 528-2900      (714) 528-2901 Vincor Construction, Inc. 2707 Saturn Street Brea, CA 92821	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">INSURER(S) AFFORDING COVERAGE</th> <th style="text-align: left;">NAIC #</th> </tr> </thead> <tbody> <tr> <td><b>INSURER A :</b> First Mercury Insurance Company</td> <td>10657</td> </tr> <tr> <td><b>INSURER B :</b> Nationwide Mutual Insurance Compan</td> <td>23787</td> </tr> <tr> <td><b>INSURER C :</b> State Compensation Insurance Fund</td> <td>35076</td> </tr> <tr> <td><b>INSURER D :</b> Sompo Japan Insurance Company of A</td> <td>11126</td> </tr> <tr> <td><b>INSURER E :</b> Underwriters at Lloyds</td> <td>15792</td> </tr> <tr> <td><b>INSURER F :</b></td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	<b>INSURER A :</b> First Mercury Insurance Company	10657	<b>INSURER B :</b> Nationwide Mutual Insurance Compan	23787	<b>INSURER C :</b> State Compensation Insurance Fund	35076	<b>INSURER D :</b> Sompo Japan Insurance Company of A	11126	<b>INSURER E :</b> Underwriters at Lloyds	15792	<b>INSURER F :</b>	
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**COVERAGES      CERTIFICATE NUMBER:      REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> <b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GENL AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	✓	✓	WA-CGL-0000054672-01	05/26/2016	05/26/2017	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000 MED EXP (Any one person) \$ Excluded PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 Deductible \$ 5,000
B	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	✓		ACP BA 3016638991	04/22/2016	04/22/2017	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ Deductible \$ 1,000
D	<input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> <b>EXCESS LIAB</b> OCCUR CLAIMS-MADE DED      RETENTION \$	✓	✓	UUX46556A0	05/26/2016	05/26/2017	EACH OCCURRENCE \$ 4,000,000 AGGREGATE \$ 4,000,000 \$
C	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="" type="checkbox"/> Y	N/A	9138890-15	07/23/2015	07/23/2016	<input checked="" type="checkbox"/> PER STATUTE      OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
E	Pollution	✓	✓	PGIARK05724-00	12/23/2015	12/23/2016	\$5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
**Re: All operations; Various locations. Cancellation 30 days written notice per attached form.**

<b>CERTIFICATE HOLDER</b> County Of Riverside 3403 Tenth Street 4th Floor Riverside, CA 92555	<b>CANCELLATION</b> SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE
--	--

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

## ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART  
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

### SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location And Description Of Completed Operations
As required by written contract signed by both parties prior to the loss.	<p>Coverage under this endorsement applies only to "Commercial Construction".</p> <p>"Commercial Construction" means all construction activity that is not "Residential Construction".</p> <p>"Residential Construction" means all construction activity performed on townhouses, condominiums, cooperatives, duplexes, triplexes, fourplexes, and single-family detached housing that is intended to be, will be, or is maintained or sold for the purpose of being used by natural persons as a dwelling, and includes any associated improvements to real property, infrastructure improvements, grading, excavating, utility work, road paving, curb, or sidewalk work.</p>
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

**A. Section II – Who Is An Insured** is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

**B. With respect to the insurance afforded to these additional insureds, the following is added to Section III – Limits Of Insurance:**

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**ADDITIONAL INSURED – OWNERS, LESSEES OR  
CONTRACTORS – AUTOMATIC STATUS WHEN  
REQUIRED IN CONSTRUCTION AGREEMENT WITH YOU**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

**A. Section II – Who Is An Insured** is amended to include as an additional insured any person or organization for whom you are performing operations when you and such person or organization have agreed in writing in a contract or agreement that such person or organization be added as an additional insured on your policy. Such person or organization is an additional insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured.

However, the insurance afforded to such additional insured:

1. Only applies to the extent permitted by law; and
2. Will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

A person's or organization's status as an additional insured under this endorsement ends when your operations for that additional insured are completed.

**B.** With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to:

1. "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:

- a. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
- b. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any professional architectural, engineering or surveying services.

2. "Bodily injury" or "property damage" occurring after:

- a. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
- b. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

C. With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance:**

The most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement you have entered into with the additional insured; or
2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**DESIGNATED CONSTRUCTION PROJECT(S)  
GENERAL AGGREGATE LIMIT SUBJECT TO A  
TOTAL POLICY AGGREGATE LIMIT**

This endorsement modifies insurance provided under the following:

**COMMERCIAL GENERAL LIABILITY COVERAGE PART**

**SCHEDULE**

**Designated Construction Projects:**

As required by written contract signed by both parties prior to the loss.

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

- A. For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under COVERAGE A (SECTION I), which can be attributed only to ongoing operations at a single designated construction project shown in the Schedule above:
1. A separate Designated Construction Project General Aggregate Limit applies to each designated construction project, and that limit is equal to the amount shown in the Declarations of this policy.
  2. Subject to the Total Policy Aggregate Limit, the Designated Construction Project General Aggregate Limit is the most we will pay for the sum of all damages under COVERAGE A, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard," regardless of the number of:
    - a. Insureds;
    - b. Claims made or "suits" brought; or
    - c. Persons or organizations making claims or bringing "suits."
  3. Any payments made under COVERAGE A for damages shall reduce the Designated Construction Project General Aggregate Limit for that designated construction project. Subject to the Policy Aggregate Limit, such payments shall not reduce the General Aggregate Limit shown in the Declarations nor shall they reduce any other Designated Construction Project General Aggregate Limit for any other designated construction project shown in the Schedule above.
  4. The limits shown in the Declarations for Each Occurrence continue to apply. However, instead of being subject to the General Aggregate Limit shown in the Declarations, such limits will be subject to the applicable Designated Construction Project General Aggregate Limit and the Total Policy Aggregate Limit.
- B. For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under COVERAGE A (SECTION I), which cannot be attributed only to ongoing operations at a single designated construction project shown in the Schedule above:
1. Any payments made under COVERAGE A for damages shall reduce the amount available under the General Aggregate Limit or the Products-Completed Operations Aggregate Limit, whichever is applicable; and
  2. Such payments shall not reduce any Designated Construction Project General Aggregate Limit.
  3. Such payments will reduce the Policy Aggregate Limit.



- C. When coverage for liability arising out of the "products-completed operations hazard" is provided, any payments for damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard" will reduce the Products-Completed Operations Aggregate Limit, and not reduce the General Aggregate Limit or the Designated Location General Aggregate Limit or the Total Policy Aggregate Limit.
- D. The Total Policy Aggregate Limit scheduled in the Declarations of this policy is the most we will pay for the sum of: (a) all damages covered under this policy and falling within the scheduled Designated Location(s) General Aggregate Limits described in Paragraph A. of this endorsement; and, (b) all damages covered under this policy and falling within the General Aggregate Limit, as described in Paragraph B. of this endorsement and as set forth in the provisions of Limits of Insurance (SECTION III) not otherwise modified by this endorsement. The Total Policy Aggregate Limit applies regardless of the sums indicated in the Declarations for any General Aggregate Limit, or Designated Location(s) General Aggregate Limit, as applicable to all locations(s) set forth in the Schedule above. The Total Policy Aggregate Limit applies collectively, rather than separately, to all of your scheduled locations. The Total Policy Aggregate Limit is not reduced by payments for damages covered under this policy and falling within the "products-completed operations hazard," but such payments will reduce the Products-Completed Operations Aggregate Limit, as described in Paragraph C. of this endorsement.
- E. For the purposes of this endorsement, the **Definitions** Section is amended by the addition of the following definition:  
"Location" means premises involving the same or connecting lots, or premises whose connection is interrupted only by a street, roadway, waterway or right-of-way of a railroad.
- F. The provisions of Limits Of Insurance (SECTION III) not otherwise modified by this endorsement shall continue to apply as stipulated.

**ALL OTHER TERMS AND CONDITIONS OF THE POLICY REMAIN UNCHANGED.**

This endorsement forms a part of the Policy to which attached, effective on the inception date of the Policy unless otherwise stated herein.

(The following information is required only when this endorsement is issued subsequent to preparation of the Policy.)

Endorsement effective

Policy No. WA-CGL-0000054672-01 Endorsement No.

Named Insured: Vincor Construction Inc.

Countersigned by \_\_\_\_\_



THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

## PRIMARY AND NON-CONTRIBUTING INSURANCE

This endorsement modifies insurance provided under the following:

### COMMERCIAL GENERAL LIABILITY COVERAGE PART PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

To the extent that this insurance is afforded to any additional insured under this policy, **SECTION IV – COMMERCIAL GENERAL LIABILITY CONDITIONS, 4. Other Insurance**, is deleted in its entirety and replaced with the following condition:

#### 4. Other Insurance

If all of the other insurance permits contribution by equal shares, we will follow this method unless the insured is required by written contract signed by both parties, to provide insurance that is primary and non-contributory, and the "insured contract" is executed prior to any loss. Where required by a written contract signed by both parties, this insurance will be primary and non-contributing only when and to the extent as required by that contract.

However, under the contributory approach each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first. If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

ALL OTHER TERMS AND CONDITIONS OF THE POLICY REMAIN UNCHANGED.

This endorsement forms a part of the Policy to which attached, effective on the inception date of the Policy unless otherwise stated herein.

(The following information is required only when this endorsement is issued subsequent to preparation of the Policy.)

Endorsement effective:

Policy No. WA-CGL-0000054672-01

Endorsement No.

Named Insured: Vincor Construction Inc.

Countersigned by \_\_\_\_\_



FMIC-GL-1002(10/2012)

## WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART  
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

### SCHEDULE

**Name Of Person Or Organization:**

As required by written contract signed by both parties prior to the loss.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph 8. **Transfer Of Rights Of Recovery Against Others To Us** of Section IV – Conditions:

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

## DECLARATION OF SUFFICIENCY OF FUNDS

(California Labor Code Section 2810)

I, the undersigned, an authorized representative of Vincor Construction Inc ("Contractor") with authority to make the statements contained in this Declaration on behalf of the Contractor, hereby declare the following:

1. The Contractor's employer identification number for state tax purposes is 05-0589192.

2. The Contractor's workers' compensation insurance policy number is 9138890-15 and the name, address, and telephone number of the insurance carrier providing said insurance is: State Comp Insurance Fund PO Box 8192 Pleasanton CA 94588

3. The following information is provided concerning any and all vehicles that are owned by the Contractor and that will be used for transportation in connection with any service provided for the performance of the Work that is the subject of the Contract [Insert information requested. Attach additional sheets, if needed.]:

<b>Vehicle</b>	<b>Vehicle ID #</b>	<b>Vehicle Liability Insurance Policy Number (of policy covering vehicle)</b>	<b>Name, Address and Telephone Number of Vehicle Liability Insurance Carrier (issuing policy covering vehicle)</b>
Chevy Silverado	8Y07515	ACP BA 3016638991	Nationwide Mutual Inc NAIC # 23787
Chevy Volt	6WRD530	ACP BA 3016638991	Nationwide Mutual Inc NAIC # 23787

4. The following is the address of any real property that will be used to house workers in connection with the performance of the Work that is the subject of the Contract [If no such housing will be provided, enter "none"]: none

5. The actual or estimated number of workers that will be employed to perform the Work that is the subject of the Contract, the total amount of wages to be paid to said workers, and the dates on which said wages will be paid are as follows [Attach additional sheets, if needed.]:

<b>Total Number of Workers</b>	<b>Total Amount of Wages</b>	<b>Date(s) for Payment of Wages</b>
2	3000.	TBD

6. Check only one of the following boxes, as applicable:

The statement of number of workers declared in Paragraph 5, above, is a statement of the actual number of workers that will be employed.

The actual number of workers requested in Paragraph 5, above, is unknown and therefore the statement of number of workers declared therein is based on the Contractor's best estimate available at the time of submitting its Proposal, rather than the actual number of workers that will be employed and if and when the actual number of workers and the other information requested above is available, it will be reported to the County of Riverside by Bidder in writing.

7. The actual or estimated total number of persons who will be utilized as independent contractors to perform the Work of the Project that is the subject of the Contract (together with their known, current local, state, and federal contractor license identification numbers that each is required to have under local, state or federal laws or regulations) are as follows [Attach additional sheets, if needed.]:

<b>List of Independent Contractors</b>	<b>Current, local, state and federal contractor license identification number</b>
TRL Systems Inc	413747

8. Check only one of the following boxes, as applicable:

The statement of number of independent contractors declared in Paragraph 7, above, is a statement of the actual number of independent contractors that will be utilized.

The actual number of independent contractors requested in Paragraph 7, above, is unknown and therefore the statement of number of independent contractors declared therein is based on the Contractor's best estimate available at the time of submitting its Proposal, rather than the actual number of independent contractors that will be utilized, and if and when the actual number of independent

07-28-15

contractors and the other information requested above is available, it will be reported to the County of Riverside by Bidder in writing.

I, the undersigned, declare under penalty of perjury that the foregoing statements are within my personal knowledge and are true and correct. Executed on this 12th day of April, in the year 2016 at Brea, California.

  
\_\_\_\_\_  
(signature)

Vincent Cortes

\_\_\_\_\_  
Type Name of Signer:

Vincor Construction Inc

\_\_\_\_\_  
Type Name of Bidder:



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

05/13/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Pacific Lighthouse Insurance Agency. 625 The City Drive South, Suite 330 Orange, CA 92868	657-667-0225	657-667-0227	CONTACT NAME: Erica Hernandez PHONE (A/C, No., Ext): 657-667-0225 E-MAIL ADDRESS: Erica@PacifiLighthouseins.com	FAX (A/C, No.): 657-667-0227
INSURED Vincor Construction, Inc. 2707 Saturn Street Brea, CA 92821			(714) 528-2900	(714) 528-2901
INSURER(S) AFFORDING COVERAGE			NAIC #	
INSURER A : First Mercury Insurance Company			10657	
INSURER B : Nationwide Mutual Insurance Compan			23787	
INSURER C : State Compensation Insurance Fund			35076	
INSURER D : Sompo Japan Insurance Company of A			11126	
INSURER E : Underwriters at Lloyds			15792	
INSURER F :				

**COVERAGES****CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	WA-CGL-0000054672-01	05/26/2016	05/26/2017	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000 MED EXP (Any one person) \$ Excluded PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 Deductible \$ 5,000
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	<input checked="" type="checkbox"/>		ACP BA 3016638991	04/22/2016	04/22/2017	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ Deductible \$ 1,000
D	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$	<input checked="" type="checkbox"/>		UUX46556A0	05/26/2016	05/26/2017	EACH OCCURRENCE \$ 4,000,000 AGGREGATE \$ 4,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	9138890-15	07/23/2015	07/23/2016	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
E	Pollution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	PGIARK05724-00	12/23/2015	12/23/2016	\$5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Re: All operations; Various locations. Cancellation 30 days written notice per attached form.

**CERTIFICATE HOLDER**

County Of Riverside  
3403 Tenth Street 4th Floor  
Riverside, CA 92555

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART  
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

**SCHEDULE**

Name Of Additional Insured Person(s) Or Organization(s)	Location And Description Of Completed Operations
As required by written contract signed by both parties prior to the loss.	Coverage under this endorsement applies only to "Commercial Construction". "Commercial Construction" means all construction activity that is not "Residential Construction". "Residential Construction" means all construction activity performed on townhouses, condominiums, cooperatives, duplexes, triplexes, fourplexes, and single-family detached housing that is intended to be, will be, or is maintained or sold for the purpose of being used by natural persons as a dwelling, and includes any associated improvements to real property, infrastructure improvements, grading, excavating, utility work, road paving, curb, or sidewalk work.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

A. **Section II – Who Is An Insured** is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance:**

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.



THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – OWNERS, LESSEES OR  
CONTRACTORS – AUTOMATIC STATUS WHEN  
REQUIRED IN CONSTRUCTION AGREEMENT WITH YOU**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

**A. Section II – Who Is An Insured** is amended to include as an additional insured any person or organization for whom you are performing operations when you and such person or organization have agreed in writing in a contract or agreement that such person or organization be added as an additional insured on your policy. Such person or organization is an additional insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured.

However, the insurance afforded to such additional insured:

1. Only applies to the extent permitted by law; and
2. Will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

A person's or organization's status as an additional insured under this endorsement ends when your operations for that additional insured are completed.

**B.** With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to:

1. "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:

- a. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
- b. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any professional architectural, engineering or surveying services.

2. "Bodily injury" or "property damage" occurring after:

- a. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
- b. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

C. With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance:**

The most we will pay on behalf of the additional insured is the amount of insurance:

- 1. Required by the contract or agreement you have entered into with the additional insured; or
- 2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**DESIGNATED CONSTRUCTION PROJECT(S)  
GENERAL AGGREGATE LIMIT SUBJECT TO A  
TOTAL POLICY AGGREGATE LIMIT**

This endorsement modifies insurance provided under the following:

**COMMERCIAL GENERAL LIABILITY COVERAGE PART**

**SCHEDULE**

**Designated Construction Projects:**

As required by written contract signed by both parties prior to the loss.

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

- A. For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under COVERAGE A (SECTION I), which can be attributed only to ongoing operations at a single designated construction project shown in the Schedule above:
1. A separate Designated Construction Project General Aggregate Limit applies to each designated construction project, and that limit is equal to the amount shown in the Declarations of this policy.
  2. Subject to the Total Policy Aggregate Limit, the Designated Construction Project General Aggregate Limit is the most we will pay for the sum of all damages under COVERAGE A, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard," regardless of the number of:
    - a. Insureds;
    - b. Claims made or "suits" brought; or
    - c. Persons or organizations making claims or bringing "suits."
  3. Any payments made under COVERAGE A for damages shall reduce the Designated Construction Project General Aggregate Limit for that designated construction project. Subject to the Policy Aggregate Limit, such payments shall not reduce the General Aggregate Limit shown in the Declarations nor shall they reduce any other Designated Construction Project General Aggregate Limit for any other designated construction project shown in the Schedule above.
  4. The limits shown in the Declarations for Each Occurrence continue to apply. However, instead of being subject to the General Aggregate Limit shown in the Declarations, such limits will be subject to the applicable Designated Construction Project General Aggregate Limit and the Total Policy Aggregate Limit.
- B. For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under COVERAGE A (SECTION I), which cannot be attributed only to ongoing operations at a single designated construction project shown in the Schedule above:
1. Any payments made under COVERAGE A for damages shall reduce the amount available under the General Aggregate Limit or the Products-Completed Operations Aggregate Limit, whichever is applicable; and
  2. Such payments shall not reduce any Designated Construction Project General Aggregate Limit.
  3. Such payments will reduce the Policy Aggregate Limit.

- C. When coverage for liability arising out of the "products-completed operations hazard" is provided, any payments for damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard" will reduce the Products-Completed Operations Aggregate Limit, and not reduce the General Aggregate Limit or the Designated Location General Aggregate Limit or the Total Policy Aggregate Limit.
- D. The Total Policy Aggregate Limit scheduled in the Declarations of this policy is the most we will pay for the sum of: (a) all damages covered under this policy and falling within the scheduled Designated Location(s) General Aggregate Limits described in Paragraph A. of this endorsement; and, (b) all damages covered under this policy and falling within the General Aggregate Limit, as described in Paragraph B. of this endorsement and as set forth in the provisions of Limits of Insurance (SECTION III) not otherwise modified by this endorsement. The Total Policy Aggregate Limit applies regardless of the sums indicated in the Declarations for any General Aggregate Limit, or Designated Location(s) General Aggregate Limit, as applicable to all locations(s) set forth in the Schedule above. The Total Policy Aggregate Limit applies collectively, rather than separately, to all of your scheduled locations. The Total Policy Aggregate Limit is not reduced by payments for damages covered under this policy and falling within the "products-completed operations hazard," but such payments will reduce the Products-Completed Operations Aggregate Limit, as described in Paragraph C. of this endorsement.
- E. For the purposes of this endorsement, the **Definitions** Section is amended by the addition of the following definition:  
"Location" means premises involving the same or connecting lots, or premises whose connection is interrupted only by a street, roadway, waterway or right-of-way of a railroad.
- F. The provisions of Limits Of Insurance (SECTION III) not otherwise modified by this endorsement shall continue to apply as stipulated.

**ALL OTHER TERMS AND CONDITIONS OF THE POLICY REMAIN UNCHANGED.**

This endorsement forms a part of the Policy to which attached, effective on the inception date of the Policy unless otherwise stated herein.

(The following information is required only when this endorsement is issued subsequent to preparation of the Policy.)

Endorsement effective

Policy No. WA-CGL-0000054672-01 Endorsement No.

Named Insured: Vincor Construction Inc.

Countersigned by \_\_\_\_\_



THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

## PRIMARY AND NON-CONTRIBUTING INSURANCE

This endorsement modifies insurance provided under the following:

### COMMERCIAL GENERAL LIABILITY COVERAGE PART PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

To the extent that this insurance is afforded to any additional insured under this policy, **SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS, 4. Other Insurance**, is deleted in its entirety and replaced with the following condition:

#### 4. Other Insurance

If all of the other insurance permits contribution by equal shares, we will follow this method unless the insured is required by written contract signed by both parties, to provide insurance that is primary and non-contributory, and the "insured contract" is executed prior to any loss. Where required by a written contract signed by both parties, this insurance will be primary and non-contributing only when and to the extent as required by that contract.

However, under the contributory approach each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first. If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

ALL OTHER TERMS AND CONDITIONS OF THE POLICY REMAIN UNCHANGED.

This endorsement forms a part of the Policy to which attached, effective on the inception date of the Policy unless otherwise stated herein.

(The following information is required only when this endorsement is issued subsequent to preparation of the Policy.)

Endorsement effective:

Policy No. WA-CGL-0000054672-01

Endorsement No.

Named Insured: Vincor Construction Inc.

Countersigned by \_\_\_\_\_



FMIC-GL-1002(10/2012)

## WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART  
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

### SCHEDULE

**Name Of Person Or Organization:**

As required by written contract signed by both parties prior to the loss.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

**The following is added to Paragraph 8. Transfer Of  
Rights Of Recovery Against Others To Us of  
Section IV – Conditions:**

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

# **RIVERSIDE COUNTY REGIONAL MEDICAL CENTER – FIRE ALARM UPGRADE**

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*PROJECT MANUAL / SPECIFICATIONS*

## **DCGA ENGINEERS**

4750 East Ontario Mills Parkway  
Ontario, CA 91764  
Tel: (909) 987-0017

Project No.: 14076  
Date: May 2015

RIVERSIDE COUNTY REGIONAL MEDICAL CENTER –  
FIRE ALARM UPGRADE

May 2015  
DCGA # 14076



DCGA ENGINEERS  
ELECTRICAL ENGINEER  
ADAM SLOAN, P.E. #E18589



REVIEWED IN ACCORDANCE WITH  
THE REQUIREMENTS OF T24, CCR

APPROVED

MAY 28 2015

Office of Statewide Health  
Planning & Development  
FACILITIES DEVELOPMENT DIVISION



## SECTION 26 01 00

### BASIC ELECTRICAL REQUIREMENTS

#### PART 1 - GENERAL

##### 1.1 SCOPE

- A. This section supplements all sections of this division and shall apply to all phases of work hereinafter specified, shown on the drawings, or required to provide a complete installation of electrical systems for the Project. Refer to all bid documents for all designated Work to be accomplished. The intent of the Specifications is to provide a complete and operable electrical system which shall include all documents which are a part of the Contract.
  - 1. Work included: Furnish all labor, material, tools, equipment, facilities, transportation, skilled supervision necessary for, and incidental to, performing operations in connection with furnishing, delivery, and installation of the work in this division complete as shown or noted on the Drawings and specified herein.
- B. Related Work Specified Elsewhere:
  - 1. Refer to all sections in the general contract conditions, Contract Requirements and Division 1, General Requirements.

##### 1.2 GENERAL REQUIREMENTS

- A. Guarantee See General Conditions:
  - 1. Except as may be specified under other Sections in the specification, guarantee equipment furnished under the specifications for a period of one year, except for equipment required to have a longer guarantee period, from date of final completion. Guarantee all work against defective workmanship, material, and improper installation. Upon notification of failure, correct deficiency immediately and without additional cost to the Owner.
  - 2. Standard warranty of manufacturer shall apply for replacement of parts after expiration of the above period. Manufacturer shall furnish replacement parts to the Owner or his service agency as approved. Furnish to the Owner, through the Engineer, printed manufacturer's warranties complete with material included and expiration dates, upon completion of project. Conform to Division 01.
- B. Equipment Safety: All electrical materials and equipment shall be new and shall be listed by Underwriter's Laboratories and bear their label, or listed and certified by a nationally recognized testing authority where UL does not have an approval. Custom made equipment must have complete test data submitted by the manufacturer attesting to its safety.
- C. Codes and Regulations:

1. Design, manufacturer, testing and method of installation of all apparatus and materials furnished under the requirements of these specifications shall conform to the latest publications or standard rules of the following:

- a. Institute of Electrical and Electronic Engineers - IEEE
- b. National Electrical Manufacturers' Association - NEMA
- c. Underwriters' Laboratories, Inc. - UL
- d. National Fire Protection Association - NFPA
- e. American Society for Testing and Materials - ASTM
- f. American National Standards Institute - ANSI
- g. 2013 California Electrical Code – CEC, Title 24, Part 3
- h. 2013 California Code of Regulations, Title 8, Subchapter 5
- i. 2013 California Building Code-CBC, Title 24 Parts 1 & 2
- j. 2013 California Fire Code- CFC, Title 24 Part 9
- k. State & Municipal Codes in Force in the Specific Project Area
- l. Occupational Safety & Health Administration – OSHA
- m. California State Fire Marshal
- n. OSHPD Fire Marshal

2. The term "Code", when used within the specifications, shall refer to the Publications, Standards, ordinances and codes, listed above. In the case where the codes have different levels of requirements the most stringent rules shall apply.

D. Requirements of Regulatory Agencies:

1. Codes, Permits, and Fees: Where the Contract Documents exceed minimum requirements, the Contract Documents take precedence. Where code conflicts occur, the most stringent shall apply. The most stringent condition shall be as interpreted by the Engineer.

- a. Comply with all requirements for permits, licenses, fees and Code. Permits, licenses, fees, inspections and arrangements required for the Work shall be obtained by the Contractor at his expense, unless otherwise specified.
- b. Comply with the requirements of the applicable utility companies serving the Project. Make all arrangements with the utility companies for proper coordination of the Work.

E. Shop Drawings:

1. See Division 01 for additional requirements.
2. Time Schedules for Submission and Ordering: The Contractor shall prepare, review and coordinate his schedule of submissions carefully, determining the necessary lead time for preparing, submitting, checking, ordering and delivery of materials and equipment for timely arrival. The Contractor shall be responsible for conformance with the overall construction schedule.
3. Submittals will be checked for general compliance with specifications only. The Contractor shall be responsible for verification that equipment is sized to fit in designated spaces including all code required clearances deviations from the drawings or specifications and for errors or omissions of any sort in submittals.

4. Submit a complete list of materials and equipment proposed for the job, including manufacturers names and catalog numbers.
  5. Shop drawings shall be submitted in completed groups of materials. The Contractor shall add and sign the following paragraph on equipment and materials submitted for review. "It is hereby certified that the (equipment) (material) shown and marked in this submittal is that proposed to be incorporated into the project; is in compliance with the Contract Drawings and specifications and can be installed in the allocated spaces". Failure to add the above written statement for compliance will result in return of submittals without review.
    - a. Bind catalog cuts, plate numbers, descriptive bulletins and drawings, 11" x 17" or smaller, in sets with covers neatly showing titles.
    - b. The Contractor shall verify dimensions of equipment and be satisfied as to Code compliance for fit prior to submitting shop drawings for approval.
    - c. Include complete catalog information such as construction, ratings, insulation systems, as applicable.
    - d. For any material specified to meet UL or trade standards, furnish the manufacturer's or vendor's certification that the material furnished for the work does in fact equal or exceed such specifications.
    - e. Reference listings to the specifications' Sections and Article to which each is applicable.
    - f. ~~Equipment Floor Plans:~~ After approval of material is secured prepare a floor plan of each equipment space or room, drawn to scale at 1/2 inch equals 1 foot and submit for approval in the same manner as for shop drawings. The layout drawings shall be exact scale.
  6. Contractor shall prepare coordinated drawings when required by Division 01.
- F. Interpretations: Requests for interpretations of drawings and specifications must be made by the Contractor through the Engineer. Any such requests made by equipment manufacturers or suppliers will be referred to the Contractor.
- G. Standard of Quality
1. The contract Drawings and Specifications establish the "MINIMUM STANDARD OF QUALITY" each product and/or system must meet to be considered acceptable. Products of other manufactures will be considered if the product and/or system meet or exceed the "MINIMUM STANDARD OF QUALITY" established by this Contract Document.
- H. Submit comprehensive material list, shop drawings and complete technical data for the following equipment and materials:
1. General Requirements:
    - a. Conduits.
    - b. Conductors, include all selected insulation types.
    - c. Breakers.
    - d. Pullboxes.
    - e. Fire alarm system.

I. Power Service to Site:

1. Contractor shall verify the locations shown on the drawings and shall include extensions of lines to service locations which are acceptable to the Engineer.
2. Should any major modifications to the work indicated be necessary to comply with the utilities requirements, notify the Engineer.

J. Record Drawings: Refer to Division 01 and 1.3 of this section.

K. Work Responsibilities:

1. The drawings indicate diagrammatically the desired locations or arrangement of conduit runs, junction boxes and equipment and are to be followed. Execute the work so as to secure the best possible installation in the available space and to overcome local difficulties due to space limitations. The Contractor is responsible for the correct placing of his work. Where conflicts occur in plans and/or specifications, the most stringent or higher cost application shall apply and shall be part of the base bid.
2. All scaled and figured dimensions are approximate of typical equipment of the class indicated. Before proceeding with work carefully check and verify dimensions and sizes with the drawings to see that the equipment will fit into the spaces provided without violation of applicable Codes.
3. Should any changes to the work indicated on the drawings or described in the specifications be necessary in order to comply with the above requirements, notify the Engineer.
4. Replace or repair, without additional compensation any work which does not comply with or which is installed in violation of any of these requirements.

L. Installation General: For special requirements, refer to specific equipment under these requirements.

1. Unless otherwise specified elsewhere in the specifications, do all excavating necessary for the proper installation of the electrical work.
2. Type of Sleeves: Sleeves shall be steel pipe.
3. Finish Around Sleeves: Rough edges shall be finished smooth. Space between conduit and sleeves where conduit passes through fire rated interior walls and slabs shall be sealed with approved materials to provide a fire barrier conforming to the requirements of the governing authorities having jurisdiction, using UL Approved Firestopping Systems.
4. Contractor shall be responsible for cutting and patching which may be required for the proper installation of the electrical work.
5. Protect work, materials and equipment cause whatever and provide adequate and proper storage facilities during the progress of the work. Storage outdoors shall be weather protected and shall include space heaters to prevent condensation. Provide for the safety and good condition of all work until final acceptance of the work. Replace all damaged or defective work, materials and equipment before requesting final acceptance.
6. Conduit and Equipment to be Installed: Clean thoroughly to remove plaster, spattered paint, cement and dirt on both exterior and interior. All underground conduit shall be mandrelled prior to pulling wire.

7. Conduit and Equipment to be Painted: Clean conduit exposed to view in completed structure by removing plaster and dirt. Remove grease, oil and similar material from conduit and equipment by wiping with clean rags and suitable solvents in preparation for paint.
8. Items with Factory Finish: Remove cement, plaster, grease and oil, and leave surfaces, including cracks and corners, clean and polished. Touch up scratched or bare spots to match finish.
9. Site Cleaning: Remove from site all packing cartons, scrap materials and other rubbish on a weekly basis. Vacuum out all cabinets, switchgear and panels prior to pulling any conductors.
10. Electrical equipment and materials exposed to public and in finished areas shall be finish-painted after installation in accordance with the Painting Section. All exposed screw-type fasteners, exterior, or interior in restrooms, shall be vandal-resistant spanner type; include tool.

M. Tests

1. Equipment and systems for which the National Electrical Testing Association (NETA) has an approved or recommended procedure, shall be tested in accordance with that procedure. Test values shall equal values recommended by NETA. Copies of test reports shall be submitted as required under shop drawing submittals. The contractor shall be responsible for obtaining an independent testing firm including all associated costs.
2. Upon completion of the work and adjustment of all equipment, conduct an operating test. Demonstrate system and equipment to operate in accordance with requirements of the Contract Documents and to be free from electrical and mechanical defects. Provide systems free from short circuits and grounds and show an insulation resistance between phase conductors and ground not less than the requirements of the governing electric code. Test circuits for proper neutral connection.
3. Complete tests prior to final inspection of project, including corrective work based on the results of the tests.
4. Perform special tests on systems and equipment as specified herein using personnel qualified to perform such tests.
5. Refer to contract documents and OSHPD Testing, Inspection, and Observation Program (TIO) form for additional required inspections.

N. Protection: Protect finish parts of the materials and equipment against damage during the progress of the work and until final completion and acceptance. Cover materials and equipment in storage and during construction in such a manner that no finished surfaces will be damaged or marred. Keep moving parts clean, dry and lubricated.

O. Cleaning Up:

1. Thoroughly clean cabinets exposed conduit, metal work including the exterior and interior, and accessories for the work of this Division, of cement, plaster and other deleterious materials; remove grease and oil spots with cleaning solvent; carefully wipe surfaces and scrape cracks and corners clean.
2. Thoroughly polish chromium or plated work. Remove dirt and stains from lighting fixtures.
3. Leave the entire installation in a clean condition.

P. Completion:

1. The work will not be reviewed for final acceptance until operating and maintenance data, manufacturer's literature, panel directories and nameplates specified herein have been approved and properly posted or installed and final cleaning of equipment and premises has been completed.
2. When the installation is complete and adjustments have been made, operate the system for a period of one week, during which time demonstrate that systems are completed and operating in conformance with the specifications.

Q. Operating and Maintenance Data: Submit complete and at one time, prior to acceptance of the installation, 4 copies of manufacturer's instructions for operation and maintenance of electrical equipment, including replacement parts lists, As specified in Division 01.

R. Inspection and Acceptance Procedures: The Engineer will submit observation reports periodically during the construction phase detailing Contract deficiencies. The Contractor is responsible for making corrections immediately. Notice of Completion of the project will not be made until all items have been corrected.

S. Final Completion of Electrical Systems:

1. Prior to Final Completion of operating electrical systems, the Contractor shall:
  - a. Provide materials of the type and quality specified and as necessary for proper operation, tested and ready for use.
  - b. Deliver to the Engineer, the Project Record Drawings per Division 01 and 1.3 below minimum.
  - c. Furnish the required Operating and Maintenance Data/Manuals.
  - d. Clean up of the project pertaining to this Division of the work.
  - e. After installation has been completed and adjustments made, operate the system for a period of one week, during which time, demonstrate to the Engineer that systems are complete and operating in conformance with Contract Documents.
  - f. Conduct tests required and as specified in this Division and submit test reports and corrective actions taken.
  - g. Submission of warranties and guarantees.
2. Final Completion of Work Shall be Contingent On:
  - a. Contractor replacing defective materials and workmanship.
  - b. Upon completion of work and adjustments made, Contractor shall conduct an operating test for each system for approval at such time as Engineer directs. Conduct test in presence of authorized representative of Engineer and demonstrate that systems and equipment do operate in accordance with requirements of the Contract Documents and are free from electrical and mechanical defects.
  - c. Contractor shall provide the necessary training programs and instructions to the Owner's representative. Number of hours shall be a minimum of four (4) hours for each system or days as required under separate Sections of

these Specifications. Complete operation and maintenance manuals shall be provided at least two (2) weeks prior to training.

- d. Submit copies of manufacturer's instructions and maintenance of electrical equipment including replacement parts lists. Each set shall include one set of shop drawings of equipment installed.

T. Submittals for Change Orders: When changes are made during the construction phase, deletions and additions shall be presented in a manner that will indicate the cost of each item of material and corresponding labor. Material cost shall be based on actual invoice or purchase price. Markup shall be then added in accordance with the requirements of the General Conditions as modified by the Supplementary Conditions.

U. The Contractor at a time convenient to the Owner shall provide instruction to the Owner's operating personnel in the proper operation and maintenance of all equipment and systems. The instructors shall have received factory training and shall be thoroughly familiar with the equipment installed.

### 1.3 ELECTRICAL PROJECT RECORD DOCUMENTS

A. Record Drawings: CAD: Use a computer aided drafting (CAD) system in the preparation of record drawings for this Project. Acceptable CAD systems shall be capable of producing files in AutoCAD Version 2000 or later version compatible DWG or DXF format.

B. At all times when the work is in progress, maintain at the workplace, fabrication shop or Project Site as applies, a complete separate, clean, undamaged set of the latest stamped, actioned submittals. As work progresses, maintain records of "as installed" conditions on this set in suitable ink or chemical fluid. Update the set daily. After successful completion of Project Site testing specified herein, and after completion of Punch List corrections, copy all records of "as installed" conditions on to originals in CAD format and submit as part of record drawings.

C. Quantity:

1. Review sets: As for Shop and Field Drawings.
2. Record set: Three (3) Bond.

D. Format: Record Drawings:

1. Pencil, permanent ink or permanent photographic process.
  - a. Front face only of Mylar at least 3.0 mils thick.
  - b. Appliqué film or lettering prohibited.
  - c. Suitable for microfilming. Lettering 1/8" (.8 mm) high minimum.
2. Disk copy of Record Drawings - 1 copy of each drawing file in format noted above, CD-ROM.

E. Content: All drawings required under "Field and Shop Drawings". Show "as installed" condition. Where room designations according to Project permanent signage differ from construction designations in the Contract Documents, show both designations.

F. Warranty Certificates: Comply with Division 01.

#### 1.4 ADDITIONAL REQUIREMENTS

A. Electrical work called for by means of detail only.

1. Unless otherwise noted, the details on the drawings which completely delineate items that are not specifically called for in any specifications shall be interpreted as the overall instruction to include them as part of the electrical work, to be installed complete, and ready for operation.

B. Access to equipment

1. The search for all occurrences in all sections, Contractor shall furnish access doors or panels where required for testing or servicing electrical equipment or where shown on the electrical drawings. The panels shall be located immediately below or in front of equipment, junction boxes and other items requiring access, which are concealed above the ceiling or behind the finish. Installation shall be by the General Contractor.
2. Access doors shall be a minimum of 12" x 12" steel construction with screwdriver operated cam lock. Milcor, or approved equal, style "DW" for drywall; style "M" for masonry and glazed tile finishes; style "K" for plaster finish and style "AT" for acoustical tile (other than lay-in panels), unless otherwise indicated.

C. Accuracy of data

1. The information given herein and on the drawings is as exact as could be secured, but its extreme accuracy is not guaranteed, the Electrical Contractor must examine the locations carefully and verify all measurements, distances, levels, conduit, wire sizes, obstructions, remodeling work, work of other trades, etc., before submitting bids and before starting work.
2. The Contractor shall inspect all drawings and shop drawings to verify that the location of electrical facilities will clear the actual dimensions of features of the building and shall plan their work and obtain approval of the Engineer for any relocations of electrical devices found necessary or desirable.
3. Contract drawings are diagrammatic in nature and are intended to convey scope and general arrangement. The locations of all items shown on the drawings or called for in the specifications that are not fixed by dimensions are approximate only. The exact locations necessary to secure the best results must be determined by the project site conditions and shall be delineated on the contractor's coordination and shop drawings. Do not scale contract drawings.
4. The Electrical Contractor shall provide all necessary offsets. Raises, or drops in conduit, ducts, raceways, and fixtures as required by building conditions at no additional cost.

D. Removal of rubbish.

1. Under no circumstances shall rubbish be allowed to accumulate in the building or on the premises. All dirt and rubbish resulting from the Electrical Contractor's work shall be removed by the Electrical Contractor from time to time and as often as directed by the Engineer.



#### E. Cutting, Core Drilling, Patching, and Repairing

1. The Contractor shall be responsible for all cutting or core drilling required for and resulting from the installation of their work, except where noted otherwise. The General Contractor shall supervise the cutting or core drilling of all chases and holes. The General Contractor shall patch and repair the holes and restore surface finish. Cutting or core drilling shall be kept to the minimum required for the installation of the work.
2. Prior to placement of any conduit, sleeve, or opening, which passes through any structural element including beams, foundation walls, footings, slabs, floor decks, or sheet walls, the Contractor shall scan for rebar and obtain approval from the Structural Engineer. The Contractor shall be responsible for layout of all penetrations prior to the start of construction.  
Where proposed openings occur at existing construction, repairs and stiffening shall be completed as directed by the Structural Engineer at Electrical Contractor's cost, including associated engineer design and detailing.
3. The Contractor shall review the Special Conditions for instructions concerning the penetration of radiation protection barriers (i.e., leadlined drywalls).

#### F. Drawings and Specifications

1. All drawings and specifications shall be considered as mutually explanatory and complementary. Any electrical work called for by one and not by the other shall be performed as though required by all.
2. Any discrepancies in or between the drawings and specifications, or between the drawings and actual field conditions shall be reported to the Engineer in sufficient time to issue an addendum for clarification. In the event that there is no time for an addendum to be issued, the Electrical Contractor shall qualify their bid as to whether or not it includes questionable items and the additions or deductions made in their base bid for such items.
3. All equipment and materials herein specified by make, model, and manufacturer shall be considered as a quality standard only and any other make or manufacturer judged by the Engineer to be of the same quality shall be acceptable.
4. The drawings, which constitute an integral part of the Contract, shall serve as the working drawings. The electrical drawings are diagrammatic, and some circuit runs have been distorted to avoid confusion of lines. However, the drawings indicate the general layout of the complete electrical system. Field verification of scale dimensions on plans is directed since actual locations, distance, and levels will be governed by actual field conditions.
5. When the drawings indicate items or show details which are not specifically called for in any specifications, the drawings shall be interpreted as the overall instruction, and the Contractor is to include them as part of the electrical work, to be installed complete and ready for operation.

#### G. Erection of Apparatus

1. All work shall be done under the supervision of the Contractor who shall provide foremen to lay out all work. All work shall be laid out with due regard for proper working clearances about electrical equipment and the space requirements of

- the other contractors. The Contractor shall immediately report to the Engineer any conflict or difficulties in regard to the installation.
2. Boxes, panels, and other electrical apparatus shall be set, mounted, positioned, coupled, connected, assembled or otherwise erected or constructed as recommended by the manufacturer or designer thereof, unless approved by the Engineer for erection in some other manner.
  3. Contractors shall be responsible to familiarize themselves with all materials and equipment furnished by others, but which will be installed under their part of the contract.
  4. Equipment of a type to require replacement, servicing, adjusting, or maintenance shall be located to allow easy access and space for the removal of internal assemblies if required.

#### H. Material List and Shop Drawings

1. The Contractor shall submit within 15 days from the date of the Contract a complete list of all materials and equipment manufacturers to be used in the installation.
  - a. List shall be complete with manufacturer's names, sizes, and types.
  - b. Call attention to deviations from specified items as to operation and physical dimensions.
  - c. Final equipment orders shall not be placed until list of materials and submittals of equipment have been returned Approved or Approved as Noted.
  - d. If the lists are not submitted within the specified time, all items provided will be as specified and all submittals of other make equipment will be automatically disapproved.
2. After initial approval of this list by the Engineer, the Contractor shall submit 5 copies of brochures, catalog cuts or technical data of all equipment to be furnished under this contract to the Engineer for approval. Drawings shall state capacities, sizes, etc., of all equipments and shall be certified by the manufacturer. The Engineer's initial approval of the manufacturer does not mean that the equipment described in shop drawings will be acceptable or approved, or that all items of that manufacturer's line will be acceptable.
3. Shop or detail drawings of special electrical panels, controls, or other apparatus or equipment which are fabricated individually for this work or not described by standard manufacturer's drawings or bulletins shall be submitted to the Engineer for approval before fabrication.
4. All shop drawings and data must be in the Engineer's office no later than 45 days from the date of Contract.
5. All items to be used on this project shall be approved by the Engineer before installation. All items installed without such approval, and which are determined by the Engineer to be unacceptable, shall be completely removed and replaced by the Contractor with approved items at no cost to the Owner.
6. Shop drawings shall include seismic anchorage details and calculations for all electrical equipment as required by local codes and regulations.

#### I. Materials and Workmanship

1. Only new, clean and perfect equipment, apparatus, materials and supplies of latest design and manufacture shall be incorporated in the work in order to ensure an electrical system of high quality.
2. The Contractor shall be completely responsible for all work installed by them and shall employ only competent and experienced workers of proper trades to perform the work.
3. All materials shall be new, shall bear the Underwriters Label of Approval, and shall be installed according to manufacturer's specifications or as directed by the Engineer. The Contractor shall assume responsibility for proper installation of materials in the space available.

J. Permits, Licenses and Inspections

1. The Contractor shall obtain and pay for all required and necessary electrical license, permit, and inspection fees, in accordance with the work as shown on the drawings and in these specifications.
2. The Contractor shall make application and arrange for inspection of all electrical work installed under this Contract. The inspection shall be made by the local Board of Fire Underwriters, or code enforcing authority. Defects found shall be corrected by the Contractor at no cost to the Owner. The Contractor shall include the cost of the inspections in their base bid and shall pay the inspection fees. Certificate of Inspection shall be sent to the Owner.

K. Substitution of Equipment or Materials

1. No substitutions will be allowed for the fire alarm system. For all other systems where a specific trade name, manufacturer, and model number is mentioned, it is intended to establish the quality, style and type of equipment necessary to fulfill design criteria and shall not be construed as restricting or limiting competition among manufacturers. The specific name and model number scheduled on the drawings and/or the first name in the specification is the basis of the system design. If contractor submits on listed alternates, he shall assume monetary and logistical responsibility for any and all necessary structural, electrical, plumbing, Architectural and HVAC modifications, and coordinate as such. Contractor shall also bear the entire administrative cost (i.e. engineering fees, Architectural fees, plan check fees, change order fees, etc.) associated of using alternate.
2. When the drawings or specifications name more than one manufacturer and include the words "or equal", it shall mean the named manufacturers are acceptable for submittal to the Engineer for approval. The specific make and model submitted shall be equal in substance and function to the scheduled or first named manufacturer, as determined by the Engineer.
3. Substitutions:
  - a. The Contractor may propose substitutes, should they so desire. All proposals for substitution shall be in the form of a fully coordinated proposal covering all changes in the work associated with making the substitution. The change shall cover electrical and mechanical work and the work of other trades.

- b. Requests for substitution of manufacturers other than those indicated on the drawings or listed in the specifications shall be submitted to the Engineer with the bid proposal.
  - c. The Contractor will NOT be allowed to substitute equipment on the basis of oral conversations, or after submission of bid. Request for substitution prior to submission of bid may be made either by the contractors bidding on this project, or by the equipment suppliers.
4. The Contractor shall be held responsible for all physical changes resulting from such substitutions of equipment and shall bear increased costs to himself as well as to other trades in making said substitutions. Approval by the Engineer of equipment other than that specified does not relieve the Contractor of this responsibility.
  5. In all instances, the Contractor shall assume full responsibility for proof of equality of the substitute to the equipment hereinafter specified. All data and information necessary for proof of equality shall be prepared and submitted to the Engineer with the substitution proposal.
  6. Approval or rejection of all or part of the substitution shall be the prerogative of the Engineer.
  7. After a submittal of any substitute equipment or material has been returned approved, or approved as noted, by the Engineer, no change in the brand or make shall be permitted without further written approval from the Engineer.
  8. Except as stated above, bidders shall make no presumptions regarding substitutions.

#### L. Temporary Electric Services

1. The Contractor shall furnish, install, maintain, and remove after construction is completed, required temporary service for light and power for building construction activities. Provide temporary power distribution system with step-down transformers as required for temporary lighting power and construction trailers.
2. The Contractor shall provide portable generators for temporary service for light and power for construction activities in the emergency generator set area.
3. The temporary electric service shall meet the requirements of OSHA and the National Electrical Code. The Contractor shall furnish and install panelboards for the temporary electrical services that will accept ground fault circuit interrupter (GFCI) plug-in circuit breakers. Circuit breakers shall be UL listed ground-fault interrupter type for the single phase 15A, 20A, and 30A branch circuits used on the construction site by construction personnel. Breakers shall be set to trip within 25-milli-seconds when a ground fault reaches or exceeds 5 milliamps.
4. The Contractor shall provide and maintain adequately sized feeders for reasonable voltage drop levels and shall install the wiring so that it is physically protected.
5. The Contractor shall furnish, install, maintain, and remove after construction is completed, temporary lighting providing a minimum of five foot candles of illumination in all work areas as required by construction operations, such as hallways, exitways, tunnels, shafts, and general underground areas, where natural light is not adequate. For the contractor's guide, 1 watt per square foot will give approximately six foot candles of illumination. All illumination levels shall

be in accordance with the minimum requirements of the federal Occupational Safety and Health Administration (OSHA).

6. Any utility company installation or removal charges for the temporary service shall be paid by the Contractor.
7. Electrical energy charges shall be paid by the Contractor.
8. Rental charges and fuel shall be paid by the Contractor.

**PART 2 - PRODUCTS**

Not Used

**PART3 - EXECUTION**

Not Used

**END OF SECTION**

RCRMC  
Fire Alarm Upgrade

**BASIC ELECTRICAL REQUIREMENTS**  
26 01 10 - 13

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## SECTION 26 0110

### BASIC ELECTRICAL MATERIALS AND METHODS

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

##### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Electrical equipment coordination and installation.
  - 2. Sleeves for raceways and cables.
  - 3. Sleeve seals.
  - 4. Common electrical installation requirements.

##### 1.3 DEFINITIONS

- A. ATS: Acceptance Testing Specifications.
- B. EPDM: Ethylene-propylene-diene terpolymer rubber.
- C. NBR: Acrylonitrile-butadiene rubber.

##### 1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.

##### 1.5 QUALITY ASSURANCE

- A. Test Equipment Suitability and Calibration: Comply with NETA ATS, "Suitability of Test Equipment" and "Test Instrument Calibration."

##### 1.6 COORDINATION

- A. Coordinate arrangement, mounting, and support of electrical equipment:
  - 1. To allow maximum possible headroom unless specific mounting heights that reduce headroom are indicated.
  - 2. To provide for ease of disconnecting the equipment with minimum interference to other installations.
  - 3. To allow right of way for piping and conduit installed at required slope.
  - 4. So connecting raceways, cables, wireways, and busways will be clear of obstructions and of the working and access space of other equipment.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

## PART 3 - EXECUTION

### 3.1 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

- A. Comply with NECA 1.
- B. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.
- C. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements.
- D. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.
- E. Right of Way: Give to raceways and piping systems installed at a required slope.

### 3.2 FIRESTOPPING

- A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly.

### 3.3 FIELD QUALITY CONTROL

- A. Inspect installed sleeve and sleeve-seal installations and associated firestopping for damage and faulty work.

END OF SECTION



## SECTION 26 05 19

### LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

##### 1.2 SUMMARY

- A. Section Includes:
  - 1. Building wires and cables rated 600 V and less.
  - 2. Connectors, splices, and terminations rated 600 V and less.

##### 1.3 DEFINITIONS

- A. VFC: Variable frequency controller.

##### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.

##### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For testing agency.
- B. Field quality-control reports.

##### 1.6 QUALITY ASSURANCE

- A. Testing Agency Qualifications: Member company of NETA or an NRTL.
  - 1. Testing Agency's Field Supervisor: Certified by NETA to supervise on-site testing.

#### PART 2 - PRODUCTS

##### 2.1 CONDUCTORS AND CABLES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - 1. Alcan Products Corporation; Alcan Cable Division.

2. Alpha Wire.
3. Belden Inc.
4. Encore Wire Corporation.
5. General Cable Technologies Corporation.
6. Southwire Incorporated.

B. Copper Conductors: Comply with NEMA WC 70/ICEA S-95-658.

C. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type THHN-2-THWN-2.

## 2.2 CONNECTORS AND SPLICES

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. AFC Cable Systems, Inc.
2. Gardner Bender.
3. Hubbell Power Systems, Inc.
4. Ideal Industries, Inc.
5. IIsco; a branch of Bardes Corporation.
6. NSi Industries LLC.
7. O-Z/Gedney; a brand of the EGS Electrical Group.
8. 3M; Electrical Markets Division.
9. Tyco Electronics.

B. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

## 2.3 SYSTEM DESCRIPTION

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Comply with NFPA 70.

## PART 3 - EXECUTION

### 3.1 CONDUCTOR MATERIAL APPLICATIONS

A. Feeders: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

B. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger, except VFC cable, which shall be extra flexible stranded.

### 3.2 CONDUCTOR INSULATION APPLICATIONS AND WIRING METHODS

- A. Feeders: Type THHN-2-THWN-2, single conductors in raceway.
- B. Branch Circuits: Type THHN-2-THWN-2, single conductors in raceway.

### 3.3 INSTALLATION OF CONDUCTORS

- A. Conceal in finished walls and ceilings, and floors unless otherwise indicated.
- B. Complete raceway installation between conductor termination points according to Division 26 "Raceways and Boxes" prior to pulling conductors and cables.
- C. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- D. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- E. Install conduit parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.

### 3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
- B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.

### 3.5 IDENTIFICATION

- A. Identify and color-code conductors and cables according to Division 26 "Electrical Identification."
- B. Identify each spare conductor at each end with identity number and location of other end of conductor, and identify as spare conductor.

### 3.6 FIRESTOPPING

- A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly.

### 3.7 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Perform the following tests and inspections:

1. After installing conductors and cables and before electrical circuitry has been energized, test service entrance and feeder conductors and branch circuit conductors.
  2. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
- C. Test and Inspection Reports: Prepare a written report to record the following:
1. Procedures used.
  2. Results that comply with requirements.
  3. Results that do not comply with requirements and corrective action taken to achieve compliance with requirements.
- D. Cables will be considered defective if they do not pass tests and inspections.

END OF SECTION

## SECTION 26 05 26

### GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

##### 1.2 SUMMARY

- A. This Section includes methods and materials for grounding systems and equipment.

##### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Qualification Data: For testing agency and testing agency's field supervisor.
- C. Field quality-control test reports.

##### 1.4 QUALITY ASSURANCE

- A. Testing Agency Qualifications: The contractor shall be responsible for obtaining including all costs for an independent agency, with the experience and capability to conduct the testing indicated, that is a member company of the InterNational Electrical Testing Association or is a nationally recognized testing laboratory (NRTL) as defined by OSHA in 29 CFR 1910.7, and that is acceptable to authorities having jurisdiction.
  - 1. Testing Agency's Field Supervisor: Person currently certified by the InterNational Electrical Testing Association to supervise on-site testing specified in Part 3.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with UL 467 for grounding and bonding materials and equipment.

#### PART 2 - PRODUCTS

##### 2.1 CONDUCTORS

- A. Insulated Conductors: Copper or tinned-copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:

1. Solid Conductors: ASTM B 3.
2. Stranded Conductors: ASTM B 8.
3. Tinned Conductors: ASTM B 33.
4. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG conductor, 1/4 inch in diameter.
5. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.
6. Bonding Jumper: Copper tape, braided conductors, terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.
7. Tinned Bonding Jumper: Tinned-copper tape, braided conductors, terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.

## 2.2 CONNECTORS

- A. Listed and labeled by a nationally recognized testing laboratory acceptable to authorities having jurisdiction for applications in which used, and for specific types, sizes, and combinations of conductors and other items connected.
- B. Bolted Connectors for Conductors and Pipes: Copper or copper alloy, bolted pressure-type, with at least two bolts.
  1. Pipe Connectors: Clamp type, sized for pipe.
- C. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.

## PART 3 - EXECUTION

### 3.1 APPLICATIONS

- A. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger, unless otherwise indicated.
- B. Conductor Terminations and Connections:
  1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
  2. Connections to Structural Steel: Welded connectors.

### 3.2 EQUIPMENT GROUNDING

- A. Install insulated equipment grounding conductors with all feeders and branch circuits.
- B. Install insulated equipment grounding conductors with the following items, in addition to those required by NFPA 70:
  1. Feeders and branch circuits.
  2. Receptacle circuits.
  3. Metal-clad cable runs.
- C. Fire Alarm Equipment: Provide No. 6 AWG minimum insulated grounding conductor in raceway from grounding electrode system or from building structural steel to each cabinet location.

1. Terminal Cabinets: Terminate grounding conductor on cabinet grounding terminal.

### 3.3 INSTALLATION

- A. Grounding Conductors: Route along shortest and straightest paths possible, unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance, except where routed through short lengths of conduit.
  1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.

END OF SECTION

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## SECTION 26 05 29

### HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

##### 1.2 SUMMARY

- A. This Section includes the following:

- 1. Hangers and supports for electrical equipment and systems.

- B. Related Sections include the following:

- 1. Section 260549 "Seismic Restraint of Suspended Electrical Utilities" and Section 260550 "Vibration Controls for Electrical Systems" for products and installation requirements necessary for compliance with seismic criteria.

##### 1.3 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. IMC: Intermediate metal conduit.
- C. RMC: Rigid metal conduit.

##### 1.4 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design supports for multiple raceways, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.
- C. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
- D. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project, with a minimum structural safety factor of five times the applied force.

## 1.5 ACTION SUBMITTALS

- A. Product Data: For the following:
  - 1. Steel slotted support systems.
- B. Shop Drawings: Signed and sealed by a qualified professional engineer. Show fabrication and installation details and include calculations for the following:
  - 1. Trapeze hangers. Include Product Data for components.
  - 2. Steel slotted channel systems. Include Product Data for components.
  - 3. Nonmetallic slotted channel systems. Include Product Data for components.
  - 4. Equipment supports.

## 1.6 INFORMATIONAL SUBMITTALS

- A. Welding certificates.

## 1.7 QUALITY ASSURANCE

- A. Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Comply with NFPA 70.

## PART 2 - PRODUCTS

### 2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
  - 1. Manufacturers:
    - a. Cooper B-Line, Inc
    - b. Allied Tube & Conduit
    - c. ERICO International Corporation
    - d. Flex Strut Inc.
    - e. GS Metals Corp
    - f. G-Strut
    - g. Haydon Corporation
    - h. Metal Ties Innovation
    - i. Thomas & Betts Corporation
    - j. Unistrut
    - k. Wesanco, Inc
  - 2. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.

3. Painted Coatings: Manufacturer's standard painted coating applied according to MFMA-4.
  4. Channel Dimensions: Selected for applicable load criteria.
- B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.
- C. Conduit and Cable Support Devices: Steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- D. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.
- E. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
- F. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
    - a. See Editing Instruction No. 1 in the Evaluations for cautions about naming manufacturers and products. Retain one of first two subparagraphs and list of manufacturers below.
      - 1) Manufacturers:
        - a) Cooper B-Line, Inc
        - b) Allied Tube & Conduit
        - c) ERICO International Corporation
        - d) Flex Strut Inc.
    2. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
      - a. Manufacturers:
        - 1) Hilti, Inc
        - 2) Cooper B-Line, Inc
        - 3) Empire Tool and Manufacturers
        - 4) ITW Ramset/Red Head
        - 5) MKT Fastening
    3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.

4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
6. Toggle Bolts: All-steel springhead type.
7. Hanger Rods: Threaded steel.

## 2.2 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

- A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.

## PART 3 - EXECUTION

### 3.1 APPLICATION

- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.
- B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT, IMC, and RMC as required by NFPA 70. Minimum rod size shall be 1/4 inch in diameter.
- C. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.
  1. Secure raceways and cables to these supports with single-bolt conduit clamps using spring friction action for retention in support channel.
- D. Spring-steel clamps designed for supporting single conduits without bolts may be used for 1-1/2-inch and smaller raceways serving branch circuits and communication systems above suspended ceilings and for fastening raceways to trapeze supports.

### 3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Raceway Support Methods: In addition to methods described in NECA 1, EMT, IMC, and RMC may be supported by openings through structure members, as permitted in NFPA 70.
- C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb.

- D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
1. To Wood: Fasten with lag screws or through bolts.
  2. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
  3. To Existing Concrete: Expansion anchor fasteners.
  4. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches thick.
  5. To Steel: Beam clamps (MSS Type 19, 21, 23, 25, or 27) complying with MSS SP-69.
  6. To Light Steel: Sheet metal screws.
  7. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate by means that meet seismic-restraint strength and anchorage requirements.
- E. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

### 3.3 INSTALLATION OF FABRICATED METAL SUPPORTS

- A. Comply with installation requirements in Section 055000 "Metal Fabrications" for site-fabricated metal supports.
- B. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.
- C. Field Welding: Comply with AWS D1.1/D1.1M.

### 3.4 PAINTING

- A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
  1. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils.
- B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

END OF SECTION

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## SECTION 26 05 33

### RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

##### 1.2 SUMMARY

- A. This Section includes raceways, fittings, boxes, enclosures, and cabinets for electrical wiring.

##### 1.3 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. ENT: Electrical nonmetallic tubing.
- C. EPDM: Ethylene-propylene-diene terpolymer rubber.
- D. FMC: Flexible metal conduit.
- E. IMC: Intermediate metal conduit.
- F. LFMC: Liquidtight flexible metal conduit.
- G. LFNC: Liquidtight flexible nonmetallic conduit.
- H. RNC: Rigid nonmetallic conduit.

##### 1.4 SUBMITTALS

- A. Product Data: For surface raceways, wireways and fittings, hinged-cover enclosures, and cabinets.
- B. Coordination Drawings: Conduit routing plans, drawn to scale, on which the following items are shown and coordinated with each other, based on input from installers of the items involved:
  - 1. Structural members in the paths of conduit groups with common supports.
  - 2. HVAC and plumbing items and architectural features in the paths of conduit groups with common supports.
- C. Qualification Data: For professional engineer and testing agency.

- D. Source quality-control test reports.

## 1.5 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

## PART 2 - PRODUCTS

### 2.1 METAL CONDUIT AND TUBING

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. AFC Cable Systems, Inc.
2. Alflex Inc.
3. Allied Tube & Conduit; a Tyco International Ltd. Co.
4. Manhattan/CDT/Cole-Flex.
5. O-Z Gedney; a unit of General Signal.

- B. EMT: ANSI C80.3.

- C. FMC: Zinc-coated steel.

- D. LFMC: Flexible steel conduit with PVC jacket.

- E. Fittings for Conduit (Including all Types and Flexible and Liquidtight), EMT, and Cable: NEMA FB 1; listed for type and size raceway with which used, and for application and environment in which installed.

1. Conduit Fittings for Hazardous (Classified) Locations: Comply with UL 886.
2. Fittings for EMT: Steel, Set screw type.

- F. Joint Compound for Rigid Steel Conduit or IMC: Listed for use in cable connector assemblies, and compounded for use to lubricate and protect threaded raceway joints from corrosion and enhance their conductivity.

### 2.2 METAL WIREWAYS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Cooper B-Line, Inc.
2. Hoffman.



3. Square D; Schneider Electric.
- B. Description: Sheet metal sized and shaped as indicated, NEMA 250, Type 1, unless otherwise indicated.
  - C. Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
  - D. Wireway Covers: Hinged type or As indicated.
  - E. Finish: Manufacturer's standard enamel finish.

## 2.3 SURFACE RACEWAYS

- A. Surface Metal Raceways: Galvanized steel with snap-on covers. Manufacturer's standard enamel finish in color selected by Architect.
  1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Thomas & Betts Corporation.
    - b. Walker Systems, Inc.; Wiremold Company (The).
    - c. Wiremold Company (The); Electrical Sales Division.

## 2.4 BOXES, ENCLOSURES, AND CABINETS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  1. Cooper Crouse-Hinds; Div. of Cooper Industries, Inc.
  2. EGS/Appleton Electric.
  3. Erickson Electrical Equipment Company.
  4. Hoffman.
  5. Hubbell Incorporated; Killark Electric Manufacturing Co. Division.
  6. O-Z/Gedney; a unit of General Signal.
  7. RACO; a Hubbell Company.
  8. Robroy Industries, Inc.; Enclosure Division.
  9. Spring City Electrical Manufacturing Company.
  10. Thomas & Betts Corporation.
  11. Walker Systems, Inc.; Wiremold Company (The).
  12. Woodhead, Daniel Company; Woodhead Industries, Inc. Subsidiary.
- B. Sheet Metal Outlet and Device Boxes: NEMA OS 1.
- C. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.
- D. Cast-Metal Access, Pull, and Junction Boxes: NEMA FB 1, galvanized, cast iron with gasketed cover.

E. Hinged-Cover Enclosures: NEMA 250, Type 1, with continuous-hinge cover with flush latch, unless otherwise indicated.

1. Metal Enclosures: Steel, finished inside and out with manufacturer's standard enamel.

F. Cabinets:

1. NEMA 250, Type 1, galvanized-steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel.
2. Hinged door in front cover with flush latch and concealed hinge.
3. Key latch to match panelboards.
4. Metal barriers to separate wiring of different systems and voltage.
5. Accessory feet where required for freestanding equipment.

### PART 3 - EXECUTION

#### 3.1 RACEWAY APPLICATION

A. Comply with the following indoor applications, unless otherwise indicated:

1. Exposed, Not Subject to Physical Damage: EMT.
2. Exposed, Not Subject to Severe Physical Damage: EMT.
3. Exposed and Subject to Severe Physical Damage: Rigid steel conduit or IMC. Includes raceways in the following locations:
  - a. Loading dock.
  - b. Corridors used for traffic of mechanized carts, forklifts, and pallet-handling units.
  - c. Mechanical rooms.
4. Concealed in Ceilings and Interior Walls and Partitions: EMT.
5. Damp or Wet Locations: Rigid steel conduit or IMC.
6. Raceways for Optical Fiber or Communications Cable in Spaces Used for Environmental Air: EMT.
7. Raceways for Optical Fiber or Communications Cable Risers in Vertical Shafts: EMT.
8. Raceways for Concealed General Purpose Distribution of Optical Fiber or Communications Cable: EMT.
9. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4, stainless steel in damp or wet locations.

B. Minimum Raceway Size: 3/4-inch trade size.

C. Raceway Fittings: Compatible with raceways and suitable for use and location.

1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings, unless otherwise indicated.

2. PVC Externally Coated, Rigid Steel Conduits: Use only fittings listed for use with that material. Patch and seal all joints, nicks, and scrapes in PVC coating after installing conduits and fittings. Use sealant recommended by fitting manufacturer.

D. Install nonferrous conduit or tubing for circuits operating above 60 Hz. Where aluminum raceways are installed for such circuits and pass through concrete, install in nonmetallic sleeve.

### 3.2 INSTALLATION

A. Comply with NECA 1 for installation requirements applicable to products specified in Part 2 except where requirements on Drawings or in this Article are stricter.

B. Keep raceways at least 6 inches away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.

C. Complete raceway installation before starting conductor installation.

D. Support raceways as specified in Division 26 Section "Electrical Supports and Seismic Restraints."

E. Arrange stub-ups so curved portions of bends are not visible above the finished slab.

F. Install no more than the equivalent of four 90-degree bends in any conduit run except for communications conduits, for which three 90-degree bends are allowed.

G. Conceal conduit and EMT within finished walls and ceilings, unless otherwise indicated.

H. Raceways shall not be Embedded in Concrete Slabs above grade or in imaging areas.

I. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.

J. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors, including conductors smaller than No. 4 AWG.

K. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb tensile strength. Leave at least 12 inches of slack at each end of pull wire.

L. Install raceway sealing fittings at suitable, approved, and accessible locations and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings at the following points:

1. Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.

2. Where otherwise required by NFPA 70.

M. Flexible Conduit Connections: Use maximum of 72 inches of flexible conduit for recessed and semirecessed lighting fixtures, equipment subject to vibration, noise transmission, or movement; and for transformers and motors.

1. Use LFMC.

### 3.3 PROTECTION

A. Provide final protection and maintain conditions that ensure coatings, finishes, and cabinets are without damage or deterioration at time of Substantial Completion.

1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.

END OF SECTION

## SECTION 26 05 44

### SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

##### 1.2 SUMMARY

- A. Section Includes:

1. Sleeves for raceway and cable penetration of non-fire-rated construction walls and floors.
2. Sleeve-seal systems.
3. Sleeve-seal fittings.
4. Grout.
5. Silicone sealants.

##### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

#### PART 2 - PRODUCTS

##### 2.1 SLEEVES

- A. Wall Sleeves:

1. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, zinc coated, plain ends.
2. Cast-Iron Pipe Sleeves: Cast or fabricated "wall pipe," equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop unless otherwise indicated.

- B. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies: Galvanized-steel sheet; 0.0239-inch minimum thickness; round tube closed with welded longitudinal joint, with tabs for screw-fastening the sleeve to the board.

- C. PVC-Pipe Sleeves: ASTM D 1785, Schedule 40.

- D. Molded-PVC Sleeves: With nailing flange for attaching to wooden forms.

- E. Molded-PE or -PP Sleeves: Removable, tapered-cup shaped, and smooth outer surface with nailing flange for attaching to wooden forms.

F. Sleeves for Rectangular Openings:

1. Material: Galvanized sheet steel.
2. Minimum Metal Thickness:
  - a. For sleeve cross-section rectangle perimeter less than 50 inches and with no side larger than 16 inches, thickness shall be 0.052 inch.
  - b. For sleeve cross-section rectangle perimeter 50 inches or more and one or more sides larger than 16 inches, thickness shall be 0.138 inch.

2.2 SLEEVE-SEAL SYSTEMS

A. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and raceway or cable.

1. Manufacturers:
  - a. Advance Products & Systems, Inc
  - b. CALPICO, Inc
  - c. Metraflex Company (The)
  - d. Pipeline Seal and Insulator, Inc
  - e. Proco Products
2. Sealing Elements: EPDM or Nitrile (Buna N) rubber interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.
3. Pressure Plates: Carbon steel or Stainless steel.
4. Connecting Bolts and Nuts: Carbon steel, with corrosion-resistant coating, or Stainless steel of length required to secure pressure plates to sealing elements.

2.3 SLEEVE-SEAL FITTINGS

A. Description: Manufactured plastic, sleeve-type, waterstop assembly made for embedding in concrete slab or wall. Unit shall have plastic or rubber waterstop collar with center opening to match piping OD.

1. Manufacturers:
  - a. HOLDRITE

2.4 GROUT

- A. Description: Nonshrink; recommended for interior and exterior sealing openings in non-fire-rated walls or floors.
- B. Standard: ASTM C 1107/C 1107M, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.

- C. Design Mix: 5000-psi, 28-day compressive strength.
- D. Packaging: Premixed and factory packaged.

## 2.5 SILICONE SEALANTS

- A. Silicone Sealants: Single-component, silicone-based, neutral-curing elastomeric sealants of grade indicated below.
  - 1. Grade: Pourable (self-leveling) formulation for openings in floors and other horizontal surfaces that are not fire rated.
  - 2. Sealant shall have VOC content calculated according to 40 CFR 59, Subpart D (EPA Method 24).
  - 3. Sealant shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- B. Silicone Foams: Multicomponent, silicone-based liquid elastomers that, when mixed, expand and cure in place to produce a flexible, nonshrinking foam.

## PART 3 - EXECUTION

### 3.1 SLEEVE INSTALLATION FOR NON-FIRE-RATED ELECTRICAL PENETRATIONS

- A. Comply with NECA 1.
- B. Comply with NEMA VE 2 for cable tray and cable penetrations.
- C. Sleeves for Conduits Penetrating Above-Grade Non-Fire-Rated Concrete and Masonry-Unit Floors and Walls:
  - 1. Interior Penetrations of Non-Fire-Rated Walls and Floors:
    - a. Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint. Comply with requirements in Section 079200 "Joint Sealants."
    - b. Seal space outside of sleeves with mortar or grout. Pack sealing material solidly between sleeve and wall so no voids remain. Tool exposed surfaces smooth; protect material while curing.
  - 2. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.
  - 3. Size pipe sleeves to provide 1/4-inch annular clear space between sleeve and raceway or cable unless sleeve seal is to be installed or unless seismic criteria require different clearance.
  - 4. Install sleeves for wall penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of walls. Cut sleeves to length for mounting flush with both surfaces of walls. Deburr after cutting.

5. Install sleeves for floor penetrations. Extend sleeves installed in floors 4 inches above finished floor level. Install sleeves during erection of floors.

D. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies:

1. Use circular metal sleeves unless penetration arrangement requires rectangular sleeved opening.
2. Seal space outside of sleeves with approved joint compound for gypsum board assemblies.

3.2 SLEEVE-SEAL-SYSTEM INSTALLATION

- A. Install sleeve-seal systems in sleeves in exterior concrete walls and slabs-on-grade at raceway entries into building.
- B. Install type and number of sealing elements recommended by manufacturer for raceway or cable material and size. Position raceway or cable in center of sleeve. Assemble mechanical sleeve seals and install in annular space between raceway or cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

3.3 SLEEVE-SEAL-FITTING INSTALLATION

- A. Install sleeve-seal fittings in new walls and slabs as they are constructed.
- B. Assemble fitting components of length to be flush with both surfaces of concrete slabs and walls. Position waterstop flange to be centered in concrete slab or wall.
- C. Secure nailing flanges to concrete forms.
- D. Using grout, seal the space around outside of sleeve-seal fittings.

END OF SECTION



## SECTION 26 05 49

### SEISMIC RESTRAINT OF SUSPENDED ELECTRICAL UTILITIES

#### PART 1 - GENERAL

##### 1.1 DESCRIPTION

- A. Provide engineered seismic restraint systems for suspended Electrical and Communications Equipment utilities compliant with the currently adopted version of the California Building Code (CBC) with OSHPD amendments. The cost of engineering, installation, materials, etc. shall be included in the contractors bid.
- B. At seismic restraint installation locations, provide vertical support systems engineered to accommodate dead load plus seismic force reactions.

##### 1.2 REFERENCES

- A. Publications, codes and standards listed below form a part of this specification to the extent referenced.
  1. *OSHPD Pre-Approved approval of Manufacturer's Certificate* 2013 California Building Code Edition, OPM-0043-13 Mason seismic restraint components for suspended utilities or approved equal.  
International Seismic Application Technology (ISAT) or approved equal.
  2. 2013 California Building Code (CBC) - Title 24, Part 2, Volume 2, Chapter 16A
  3. ASCE 7-05, Chapter 13, Minimum Design Loads For Buildings and Other Structures, American Society of Civil Engineers (ASCE)
  4. ACI 318-05, Building Code Requirements for Structural Concrete, American Concrete Institute (ACI).

##### 1.3 COMPONENT IMPORTANCE FACTOR

- A. In order to identify systems required seismic restraint and to define those from which restraints may be excluded, the design team has assigned an ASCE 7 Importance Factor ( $I_p$ ) to utility components on the basis of the following:  
  
 $I_p = 1.5$       Occupancy Category IV, essential facilities required for post earthquake recovery – all "Designated Seismic Systems" per CBC Chapter 17 required for the continued operation of the facility.

##### 1.4 SUBMITTALS

- A. Contractor to identify and convey to the seismic bracing provider each overhead deck condition to which seismic attachments will be made. Information to include type and density of concrete, concrete thickness, size and gage of metal deck, type and size of steel member and any point load limitations or restrictions.

- B. Provide Seismic Design Force calculations per ASCE 7- 05, Formulas 13.3-1 thru 13.3-3 stamped by a qualified structural engineer licensed to practice in the State of California. For multi-story projects, provide calculated Seismic Design Force for each floor. Provide all OSHPD applications and forms to Engineer as required for submission to OSHPD as a post approval document.
- C. If not already furnished in contract documents, submit seismic restraint layouts stamped by a qualified structural engineer licensed to practice in the State of California. Seismic restraint layouts to show:
  - 1. All vertical support and seismic brace locations.
  - 2. All anchorage connections to structure. Anchor brand, type, quantity and size.
  - 3. Vertical support and brace reaction point load at all connections to structure. For review by engineer of record in checking suitability of the building structure to accommodate imposed loads.
  - 4. Plan set sheets showing appropriate installation details reflecting actual job site conditions.
- D. Include cover sheet with Seismic Restraint Bracing Legend delineating:
  - 1. Maximum Allowable Size or Utility Weight (Lbs/Lf).
  - 2. Minimum Vertical Support Rod Diameter.
  - 3. Support Rod Total Vertical Load.
  - 4. Maximum Allowable Transverse Brace Spacing.
  - 5. Transverse Brace Reaction.
  - 6. Maximum Allowable Longitudinal Brace Spacing.
  - 7. Longitudinal Brace Reaction.
  - 8. Minimum Required Seismic Restraint Brace Arm Assembly.
  - 9. Minimum Required Seismic Restraint Anchorage To Overhead Structure.
  - 10. Installation Detail Drawing References

## PART 2 - PRODUCTS

### 2.1 ACCEPTABLE MANUFACTURERS

- A. Seismic restraint components for suspended utilities to be that furnished by Mason Industries or approved equal.
- B. Vertical support and seismic restraint anchorages are to utilize deck inserts or post installed anchors as approved by the seismic bracing manufacturer.
- C. Vertical support and seismic restraint connections to structural steel are to utilize Beam Clamp with safety strap connections unless noted otherwise. Welded or bolted connections are an acceptable alternate provided the details employed are those pre-engineered by the seismic bracing manufacturer.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Vertical support and seismic restraint anchorages to be per the OSHPD pre-approved manual and calculations submitted for approval.
- B. For conditions not covered within the OSHPD pre-approved manual, provide project specific calculations and details.
- C. The seismic bracing manufacturer shall provide field installation training prior to commencement of install.
- D. Field relocation of any seismic installation points away from that shown on the furnished shop drawing layouts shall be coordinated with the seismic bracing manufacturer. The cost of engineering, installation, materials, etc. shall be included in the contractors bid.
- E. Consult the seismic bracing manufacturer when field conditions prohibit compliance with the supplied installation details.
- F. In order to satisfy CBC 2014 requirements, the allowable brace spacing for non-ductile systems (eg. cast iron, plastic and glass pipe) shall be no more than half that for ductile systems.

### 3.2 EQUIPMENT CONNECTIONS

- A. Where seismic bracing is allowed to be omitted due to component size or proximity to overhead deck, all terminations to fixed equipment, panels, etc. or to other portions of the system requiring seismic restraint are to utilize flexible connectors.

END OF SECTION

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