



BOARD OF DIRECTORS
APRIL 3, 2019
SUPPLEMENTAL INFORMATION

ITEM #E2 – OCCUPATIONAL HEALTH SERVICES

**ITEM #F3 – GENERATOR PROJECT – SAN BERNARDINO TRANSIT
CENTER**

ITEM #F4 – PARKING LOT SWEEPING

AMENDMENT 2 TO
CONTRACT HRS16-31

BETWEEN

OMNITRANS

AND

U.S. HEALTHWORKS MEDICAL GROUP

Occupational Health Services

This Unilateral Contract Amendment 2, effective April 3, 2019, is entered into by and between Omnitrans (hereinafter called "Agency") and U.S. Healthworks Medical Group (hereinafter called "Contractor").

RECITALS

WHEREAS:

- I. Agency and Contractor have entered into Contract HRS16-31 on July 1, 2016;
- II. Agency amended the Contract under Amendment 1 to exercise Option Year One, extending the Contract through June 30, 2019, and increasing the contract amount by \$103,020 for a new total contract not-to-exceed amount of \$305,020; and
- III. Section 12. ASSIGNMENT, states "This Agreement, any interest herein or claim hereunder, may not be assigned by CONTRACTOR either voluntarily or by operation of law, nor may all or any part of this Agreement be subcontracted by CONTRACTOR, without the prior written consent of OMNITRANS. Consent by OMNITRANS shall not be deemed to relieve CONTRACTOR of its obligations to comply fully with all terms and conditions of this Agreement." Contractor now desires to obtain Omnitrans' consent to assign contract to Occupational Health Centers of California, A Medical Corporation dba Concentra Medical Centers.

NOW THEREFORE, the AGENCY agrees as follows:

- I. Agency consents to the assignments by Contractor of Agreement as a result of an asset purchase agreement with Occupational Health Centers of California, A Medical Corporation dba Concentra Medical Centers.
- II. Contract Cover Page, change Contractor's name and address to:

Occupational Health Centers of California, A Medical Corporation dba
Concentra Medical Centers
3200 Inland Empire Blvd. #100
Ontario, CA 91764

- III. Contract Agreement, Page 7, delete Notification to Contractor in its entirety and replace with:

Occupational Health Centers of California, A Medical Corporation dba
Concentra Medical Centers
3200 Inland Empire Blvd. #100
Ontario, CA 91764
Attn: Robin Annette
Account Executive – Inland Empire West

- IV. As hereby amended, the Contract remains in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this Unilateral Amendment 2 to Contract HRS16-31 to be subscribed by its duly authorized officer on its behalf.

OMNITRANS

P. Scott Graham
CEO/General Manager

Dated _____

CM_____



CONTRACT AGREEMENT

between

CONTRACTOR
BWW & Company, Inc.
301 N. 9th Street, Suite 100
Redlands, CA 92374

(hereinafter "CONTRACTOR")
Telephone: (909) 268-8516
Email: b-w-w@live.com

And

Omnitrans
1700 West Fifth Street
San Bernardino, CA 92411
(hereinafter "OMNITRANS")

CONTRACT DOCUMENTS

CONTRACT NO. HRS18-68

**Generator Project – San Bernardino
Transit Center (SBTC)**

Contract Amount: \$462,558

Omnitrans Project Manager:

Name: Thomas Dahlin
Title: Capital Projects Services Manager
Telephone: (909) 268-8516
Email: b-w-w@live.com

Contract Administrator:

Name: Krystal N. Turner
Title: Contract Administrator
Telephone: (909) 379-7202
Email: krystal.turner@omnitrans.org



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ATTACHMENT A – TECHNICAL SPECIFICATIONS/DRAWINGS

ATTACHMENT B – REGULATORY REQUIREMENTS

ATTACHMENT C – PREVAILING WAGES

ATTACHMENT D – GENERAL PROVISIONS

ATTACHMENT E – SPECIAL PROVISIONS

ATTACHMENT F – PROHIBITING WEAPONS IN THE WORKPLACE

This Agreement is made and entered into as of this 3rd day of April, 2019 and between Omnitrans (hereinafter referred to as "OMNITRANS") and BWW & Company, Inc. (hereinafter referred to as "CONTRACTOR").

RECITALS

WHEREAS, OMNITRANS is a joint powers authority organized under Section 6500 et seq. of the California Government Code with power to contract for services described in Attachment A to this Agreement entitled "Attachment A, Scope of Work" (hereinafter referred to as "Work");

WHEREAS, CONTRACTOR has indicated it is qualified to perform such services and (1) has reviewed all the available data furnished by OMNITRANS pertinent to the Work to be rendered; (2) has inspected and reviewed the Work to be rendered; (3) will exercise the ordinary care and skill expected of a practitioner in its profession; and (4) is willing to accept responsibility of performing the Work set forth in this Agreement for the compensation and in accordance with the terms, requirements and conditions herein specified;

NOW, THEREFORE, for the consideration hereinafter stated, the parties agree as follows:

1. TECHNICAL SPECIFICATIONS

- A. CONTRACTOR will perform the Work and related tasks as described in Attachment A, Scope of Work hereto and is incorporated by reference into and made a part of this Agreement.
- B. This is a non-exclusive Agreement, whereby OMNITRANS may, at its sole discretion, augment or supplant the Work with its own forces or forces of another contractor or entity. CONTRACTOR will cooperate fully with OMNITRANS' staff or other contractor or entity that may be providing similar or the same Work for OMNITRANS.

2. PERIOD OF PERFORMANCE

The term of this Agreement shall be from the date of execution of this Agreement and continue in effect through October 31, 2019, unless terminated as specified in Section 10 and 11 of this Agreement. Omnitrans has no obligation to purchase any specified amount of products/services. All applicable indemnification provisions in this Agreement shall remain in effect following the termination of this Agreement.

3. COMPENSATION

For CONTRACTOR's full and complete performance of its obligations under this Agreement, OMNITRANS shall pay CONTRACTOR on a LUMP SUM basis and subject to the maximum cumulative payment obligation.

LUMP SUM..... \$462,558

OMNITRANS' maximum cumulative payment obligation under this Agreement shall not exceed Four Hundred Sixty Two Thousand, Five Hundred and Fifty Eight Dollars (\$462,558), including all amounts payable to CONTRACTOR for all costs, including but not limited to direct labor, other direct costs, subcontracts, indirect costs including, but not limited to, leases, materials, taxes, insurance, and profit.

4. INVOICING AND PAYMENT

- A. CONTRACTOR shall invoice OMNITRANS on a monthly basis no later than the 15th of each month. CONTRACTOR shall furnish information as may be requested by OMNITRANS to substantiate the validity of an invoice.

CONTRACTOR shall submit invoices in duplicate to:

OMNITRANS
1700 West Fifth Street
San Bernardino, CA 92411
Attn: Accounts Payable
Accountspayable@omnitrans.org
Contracts@omnitrans.org

A separate invoice shall be used for each shipment. Each invoice shall include, at minimum, the following information:

- Contract number
- Invoice number
- Description of delivery
- Delivery Date
- Total quantity delivered
- Information as requested by OMNITRANS

- B. OMNITRANS shall remit payment within thirty (30) calendar days of approval of the invoices by OMNITRANS' Project Manager.

In the event OMNITRANS should overpay CONTRACTOR, such overpayment shall not be construed as a waiver of OMNITRANS' right to obtain reimbursement for the overpayment. Upon discovering any overpayment, either on its own or upon notice of OMNITRANS, CONTRACTOR shall immediately reimburse OMNITRANS the entire

overpayment or, at its sole discretion, OMNITRANS may deduct such overpayment amount from monies due to CONTRACTOR under this Agreement or any other Agreement between OMNITRANS and CONTRACTOR.

C. TITLE

- a. Title shall pass to Omnitrans at the time of payment.
- b. The title transferred as above shall in each case be good, and free and clear from any and all security interests, liens, and/or other encumbrances.
- c. The transfer of title as specified above shall not imply Acceptance by Omnitrans, nor relieve the Contractor from the responsibility for strict compliance with the Contract, including warranty as specified in the Article entitled Warranty of Work, and for any loss of or damage to the Work.
- d. The Contractor at its own expense shall promptly execute, acknowledge, and deliver to the Omnitrans proper bills of sale or other written instruments of title in a form as required by Omnitrans; said instruments shall convey to the Omnitrans' title free and clear of debts, claims, liens, mortgages, taxes, and/or encumbrances.
- e. Contractor shall have title to and bear the risk of any loss of or damage to Work purchased hereunder until they are delivered, unloaded, and received by Omnitrans at the FOB Destination specified herein. Contractor's responsibility for loss or damage except for loss or damage resulting from Contractor's negligence, shall cease when title passes to Omnitrans.

5. AUDIT AND INSPECTION OF RECORDS

CONTRACTOR agrees that OMNITRANS or any duly authorized representative shall have access to and the right to examine, audit, excerpt, copy or transcribe any pertinent transaction, activity, time cards, employment records or other records relating to this Agreement. Such material, including all pertinent cost, accounting, financial records, and proprietary data must be kept and maintained by CONTRACTOR for a period of three (3) years after completion of this Agreement unless OMNITRANS' written permission is given to CONTRACTOR to dispose of material prior to this time.

6. NOTIFICATION

All notices hereunder concerning this Agreement and the Work to be performed shall be physically transmitted by courier, overnight, registered or certified mail, return receipt requested, postage prepaid and addressed as follows:

To OMNITRANS:

Omnitrans
1700 West Fifth Street
San Bernardino, CA 92411
Attn: Krystal N. Turner
Contract Administrator

To CONTRACTOR:

BWW & Company, Inc.
301 9th Street, Suite 100
Redlands, CA 92374
Attn: Bobby Wilson
Owner

7. OMNITRANS' AND CONTRACTOR'S REPRESENTATIVES

A. OMNITRANS' Project Manager

Contracting Officer: OMNITRANS' CEO/General Manager or his authorized designee who has authority to execute contracts on behalf of OMNITRANS.

Project Manager: Thomas Dahlin, Capital Projects Services Manager

- a. Except as expressly specified in this Agreement, the Contracting Officer may exercise any powers, rights and/or privileges that have been lawfully delegated by OMNITRANS. Nothing in this Agreement should be construed to bind OMNITRANS for acts of its officers, employees, and/or agents that exceed the delegation of authority specified herein.
- b. The Contracting Officer has delegated to the Project Manager certain powers and duties in connection with this Agreement. The Project Manager is the authorized representative of the Contracting Officer for matters related to this Agreement. The Project Manager or his/her designee is empowered to:
 1. Have general oversight of the Work and this Agreement, including the power to enforce compliance with this Agreement.
 2. Reserve the right to remove any portion of the Work from CONTRACTOR which have not been performed to OMNITRANS' satisfaction.
 3. Subject to the review and acceptance by OMNITRANS, negotiate with CONTRACTOR all adjustments pertaining to this Agreement for revision.
- c. In addition to the foregoing, the Project Manager shall have those rights and powers expressly set forth in other sections of this Agreement.

B. Contractor's Key Personnel

The following are CONTRACTOR's key personnel and their associated roles in the Work to be provided:

<u>Name</u>	<u>Role</u>
Bobby Wilson	Owner
Mary Wilson	Secretary

Any propose/substitution or replacement by Contractor of Contractor's key personnel shall ensure that such person possesses the same or better expertise and experience than the key personnel being substituted or replaced. Omnitrans reserves the right to interview such person to ascertain and verify if such proposed substitution or replacement does in deed possess such expertise and experience.

OMNITRANS awarded this Agreement to CONTRACTOR based on OMNITRANS' confidence and reliance on the expertise of CONTRACTOR's key personnel described above. CONTRACTOR shall not reassign key personnel or assign other personnel to key personnel roles until CONTRACTOR obtains prior written approval from OMNITRANS.

9. DISPUTE RESOLUTION

Any disputes between the successful CONTRACTOR and OMNITRANS relating to the implementation or administration of the Contract shall be resolved in accordance with this section.

- A. The parties shall first attempt to resolve the dispute informally in meetings or communications between proposer and OMNITRANS.
- B. If the dispute remains unresolved fifteen (15) days after it first arises, proposer may request that Omnitrans' CEO/General Manager issue a recommended decision on the matter in dispute. Omnitrans' CEO/General Manager shall issue the recommended decision in writing and provide a copy to proposer.
- C. If the dispute remains unresolved after review by Omnitrans' CEO/General Manager, either party may seek judicial resolution of the dispute in an appropriate Court of the State of California.
- D. Pending final resolution of a dispute under this section, proposer shall proceed diligently with performance in accordance with the Contract and Omnitrans' CEO/General Manager's recommended decision.

10. TERMINATION FOR CONVENIENCE

OMNITRANS may terminate this Agreement in whole or in part for OMNITRANS' convenience. Omnitrans' CEO/General Manager shall terminate this Agreement by a written Notice of Termination to CONTRACTOR specifying the nature, extent, and effective date of the termination. Upon receipt of the notice of termination, CONTRACTOR shall immediately discontinue all Work affected and deliver all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this Agreement, whether completed or in process, to Omnitrans' CEO/General Manager. OMNITRANS shall make an equitable adjustment in the Agreement for Work already performed but shall not allow anticipated profit on unperformed services. Force Majeure shall apply.

11. TERMINATION FOR BREACH OF AGREEMENT

- A. If CONTRACTOR fails to perform any of the provisions of this Agreement or so fails to make progress as to endanger timely performance of this Agreement, OMNITRANS may give CONTRACTOR written notice of such default. If CONTRACTOR does not cure such default or provide a plan to cure such default which is acceptable to OMNITRANS within the time permitted by OMNITRANS, then OMNITRANS may terminate this Agreement due to CONTRACTOR's breach of this Agreement.
- B. If a federal or state proceeding for relief of debtors is undertaken by or against CONTRACTOR, or if CONTRACTOR makes an assignment for the benefit of creditors, then OMNITRANS may immediately terminate this Agreement.
- C. If CONTRACTOR violates Section 28, Compliance with Lobbying Policies, of this Agreement, then OMNITRANS may immediately terminate this Agreement.
- D. In the event OMNITRANS terminates this Agreement as provided in this Section, OMNITRANS may procure, upon such terms and in such manner as OMNITRANS may deem appropriate, Work similar in scope and level of effort to those so terminated, and CONTRACTOR shall be liable to OMNITRANS for all of its costs and damages, including, but not limited, any excess costs for such Work.
- E. All finished or unfinished documents and materials produced or procured under this Agreement shall become OMNITRANS' property upon date of such termination.
- F. If, after notice of termination of this Agreement under the provisions of this Section, it is determined for any reason that CONTRACTOR was not in default under the provisions of this Section, or that the default was

excusable under the terms of this Agreement, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to Section 10, Termination for Convenience.

- G. The rights and remedies of OMNITRANS provided in this Article shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Agreement.

12. ASSIGNMENT

This Agreement, any interest herein or claim hereunder, may not be assigned by CONTRACTOR either voluntarily or by operation of law, nor may all or any part of this Agreement be subcontracted by CONTRACTOR, without the prior written consent of OMNITRANS. Consent by OMNITRANS shall not be deemed to relieve CONTRACTOR of its obligations to comply fully with all terms and conditions of this Agreement.

13. SUBCONTRACTING

OMNITRANS hereby consents to CONTRACTOR's subcontracting of portions of the Work to the parties identified below for the functions described in CONTRACTOR's proposal. CONTRACTOR shall include in each subcontract agreement the stipulation that CONTRACTOR, not OMNITRANS, is solely responsible for payment to the subcontractor for all amounts owing and that the subcontractor shall have no claim, and shall take no action against OMNITRANS, Member Agencies or officers, directors, employees or sureties thereof for nonpayment by CONTRACTOR.

CONTRACTOR shall not, without the express written consent of Omnitrans, either:

- a. Substitute any person, firm, or corporation as subcontractor in place of the subcontractors identified below; or
- b. Permit any subcontract to be assigned or transferred; or
- c. Allow work to be performed by anyone other than the original subcontractor listed below.

Subcontractor's Name and Address	Work to Be Performed
Chris Green Electrical 17100 B. Bear Valley Rd. #138 Victorville, CA 92395	Electrical - \$27,000

Bithell, Inc.
1004 E. Edna Place
Covina, CA 91724

Painting - \$36,510

Bay City Electric Works
13625 Danielson Street
Poway, CA 92064

Generator - \$83,767

Pacific Heritage, Inc.
700 E. Redlands Blvd. Ste 4121
Redlands, CA 92373

Enclosure – \$56,603

14. INDEPENDENT CONTRACTOR

CONTRACTOR's relationship to OMNITRANS in the performance of this Agreement is that of an independent Contractor. CONTRACTOR's personnel performing Work under this Agreement shall at all times be under CONTRACTOR's exclusive direction and control and shall be employees of CONTRACTOR and not employees of OMNITRANS. CONTRACTOR shall pay all wages, salaries and other amounts due its employees in connection with this Agreement and shall be responsible for all reports and obligations respecting them, such as social security, income tax withholding, unemployment compensation, workers' compensation and similar matters.

15. INSURANCE

A. INSURANCE REQUIREMENTS

1) General Requirements for Contractor

- a. Without limiting or diminishing the Contractor's obligation to indemnify or hold Omnitrans harmless, Contractor shall procure, prior to commencement of the services required under this contract and maintain for the duration of the contract at its own expense, insurance of the kinds and in the amounts as indicated below;
- b. Provide Omnitrans with valid original certificates of insurance and endorsements showing Omnitrans as an additional insured.

2) Deductibles or Self-Insured Retention (SIR)

SIR must be declared to and approved by Omnitrans. At the option of Omnitrans, either: the insurer shall reduce or eliminate such deductibles or SIR or Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

3) Other Insurance Provisions

a. Commercial General Liability and Automobile Liability

Commercial General Liability insurance coverage, including but not limited to, premises liability, contractual liability, products and completed operations liability, personal and advertising injury covering claims which may arise from or out of Contractor's performance of its obligations hereunder and if Contractor's vehicles or mobile equipment are used in the performance of the obligations under this Agreement, then Contractor shall maintain liability insurance for all owned, non-owned or hired vehicles so used. Policy shall name Omnitrans, its officers, officials, employees, agents and volunteers as additional insured as respects: liability arising out of activities performed by or on behalf of Contractor; products and completed operations of Contractor; premises owned, occupied or used by Contractor; or automobiles owned, leased, hired or borrowed by Contractor. The coverage shall contain no special limitations of the scope of protection afforded Omnitrans, its officers, officials, employees, agents, and volunteers.

1. For any claims related to this project, Contractor's insurance coverage shall be primary insurance as respects Omnitrans, its officers, officials, employees, agents, and volunteers. Any insurance and/or deductibles and/or self-insured retentions or self-insured programs maintained by Omnitrans, its officers, officials, employees, agents, and volunteers shall be excess of Contractor's insurance and shall not be construed as contributory.
2. Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
3. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, cancelled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice has been given to Omnitrans.

b. Workers' Compensation

If the Contractor has employees as defined by the State of California, the Contractor shall maintain statutory Workers' compensation Insurance (Coverage A) as prescribed by the laws of the State of California. Policy shall include Employers' Liability (Coverage B) including Occupational Disease with limits not less than \$1,000,000 per person per accident. The policy shall be endorsed to waive subrogation in favor of Omnitrans and, if applicable, to provide a Borrowed Servant/Alternate Employer Endorsement.

c. Care, Custody, and Control

Contractor shall insure any Omnitrans property while under its Care, Custody, and Control according to the requirements listed in the insurance coverage required.

4) Acceptability of Insurers

Insurance companies shall be State of California admitted or approved and have a current **A.M. Best's** rating of no less than **A:VIII**.

5) Verification of Coverage

- a. Contractor shall furnish Omnitrans with original endorsements affecting coverage required by this clause. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. All insurance certificates and endorsements are to be received and approved by Omnitrans before work commences.
- b. As an alternative, Contractor's insurer may provide complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications.
- c. In lieu of purchasing insurance and providing original endorsements and or certificates of insurance, the Contractor may provide proof of self-insurance; such proof must be to the satisfaction of Omnitrans.

6) Subcontractors

Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein.

7) Notification of Terminated Insurance

Insurance shall not be terminated or expire without thirty (30) days written or electronic notice, and are required to be maintained in force until completion of the contract.

B. MINIMUM INSURANCE COVERAGE

If the Contractor maintains broader coverage and/or higher limits than the minimum requirements shown below, Omnitrans requires and shall be entitled to the broader coverage and/or higher limits maintained by the Contractor.

- 1) ☒ **Commercial General Liability including Products/Completed Operations:** \$1,000,000; per occurrence for bodily and property damage liability and \$2,000,000 aggregate; *Omnitrans named and endorsed as an Additional Insured.*

- 2) ☒ **Automobile Liability:** \$1,000,000; per occurrence for bodily and property damage liability and aggregate; *Omnitrans named and endorsed as an Additional Insured.*
- 3) ☐ **Errors and Omissions Liability:** \$1,000,000; combined single limit bodily and property damage liability per occurrence and \$ 3,000,000 aggregate or,
- 4) ☐ **Professional Liability:** \$1,000,000; per occurrence and aggregate.
- 5) ☒ **Workers' Compensation:** statutory limits or,
- 6) ☐ **Self-Insurance Program:** a State Approved program in an amount and form that meets all applicable requirements of the Labor Code of the State of California.
- 7) ☒ **Employer's Liability:** \$1,000,000; per occurrence.
- 8) ☐ **Environmental Liability:** \$1,000,000; per occurrence and aggregate; *Omnitrans named and endorsed as an Additional Insured.*
- 9) ☐ **Umbrella Policy:** \$4,000,000; per occurrence and aggregate Additional coverage for the above policies, *Omnitrans Additional Insured.*
- 10) ☐ All drivers making deliveries of products specified on this solicitation shall have Hazardous Materials Endorsements on their Commercial Driver's License, and such other Endorsements as may be required by relevant laws and/or regulations.

16. INDEMNITY

CONTRACTOR shall indemnify, defend and hold harmless OMNITRANS, and its member agencies, and their officers, directors, employees and agents from and against any and all liability, expense (including, but not limited to, defense costs and attorneys' fees), claims, causes of action, and lawsuits for damages of any nature whatsoever, including, but not limited to, bodily injury, death, personal injury or property damage (including property of CONTRACTOR) arising from or connected with any alleged act and/or omission of CONTRACTOR, its officers, directors, employees, agents, Subcontractors or suppliers. This indemnity shall survive termination or expiration of this Agreement and/or final payment thereunder.

17. REVISIONS IN SCOPE OF WORK

By written notice or order, OMNITRANS may, from time to time, order work suspension or make changes to this Agreement. Changes in the Work shall be mutually agreed to and incorporated into an amendment to this Agreement. Upon execution of an amendment, CONTRACTOR shall perform the Work, as amended.

18. RIGHTS IN TECHNICAL DATA

- A. No material or technical data prepared by CONTRACTOR under this Agreement is to be released by CONTRACTOR to any other person or entity except as necessary for the performance of the Work. All press releases or information concerning the Work that might appear in any publication or dissemination, including but not limited to, newspapers, magazines, and electronic media, shall first be authorized in writing by OMNITRANS.
- B. The originals of all letters, documents, reports and other products and data produced under this Agreement shall become the property of OMNITRANS without restriction or limitation on their use and shall be made available upon request to OMNITRANS at any time. Original copies of such shall be delivered to OMNITRANS upon completion of the Work or termination of the Work. CONTRACTOR shall be permitted to retain copies of such items for the furtherance of its technical proficiency; however, publication of this material is subject to the prior written approval of OMNITRANS. The provisions of this paragraph shall survive termination or expiration of this Agreement and/or final payment thereunder.

19. OWNERSHIP OF REPORTS AND DOCUMENTS

The originals of all letters, documents, reports and other products and data produced under this Agreement shall be delivered to and become the sole and exclusive property of OMNITRANS. Copies may be made for CONTRACTOR's records but shall not be furnished to others without prior written authorization from OMNITRANS. Such deliverables shall be deemed works made for hire, and all rights in copyright therein shall be retained by OMNITRANS.

20. OWNERSHIP RIGHTS

- A. In the event OMNITRANS rightfully obtains copies of Proprietary Data under the terms of the separate License Agreement and Escrow Agreement that govern rights in Documentation, Software and Intellectual Property created and/or developed by Contractor, its Third Party Software Contractors and its Suppliers as part of the Project, any derivative works and associated documentation created by or on behalf of OMNITRANS by Permitted Programmers (as defined in the License Agreement) shall be the sole and exclusive property of OMNITRANS (collectively, "OMNITRANS Intellectual Property"), and OMNITRANS may use, disclose and exercise dominion and full rights of ownership, in any manner in OMNITRANS Intellectual Property in connection with the use, operation and maintenance of a transportation system administered by OMNITRANS. No use of OMNITRANS Intellectual Property shall be made for any purpose other than in conjunction with a transportation system administered by CONTRACTOR, and OMNITRANS shall not sell, lease, rent, give away or otherwise disclose any OMNITRANS

Intellectual Property to any outside third party other than Permitted Programmers. To the extent there may be any question of rights of ownership or use in any OMNITRANS Intellectual Property, Contractor shall require all of its subcontractors and suppliers (including without limitation its Third Party Software Contractors) to assign to OMNITRANS, all worldwide right, title and interest in and to all OMNITRANS Intellectual Property in a manner consistent with the foregoing terms of this paragraph. Contractor shall execute any documents as OMNITRANS may from time to time reasonably request to effectuate the terms of this paragraph.

- B. All documentation and Software which predates this Contract, and which otherwise owned by Contractor or its Third-Party Software Contractors, and all Documentation and Software which is created by Contractor or its Third Party Software Contractors shall be Licensed Software or Licensed Documentation, as appropriate. All Licensed Software and Licensed Documentation shall be governed by the License Agreement by and between the parties of event date herewith.

21. WORK FOR HIRE

Any work created or produced as a part of this Agreement that may be defined under Section 101, Title 17, USC will be considered "work for hire" as it pertains to ownership rights. CONTRACTOR, by his/her endorsement hereon agrees that all rights to any work(s) created or produced are waived, and that ownership rests with OMNITRANS. CONTRACTOR further agrees to ensure transfer of all rights to such work(s), as defined under federal copyright law, that may be created or produced under this Agreement by its suppliers, contractors or subcontractors.

22. SUBMITTAL OF CLAIMS BY CONTRACTOR

CONTRACTOR shall file any and all claims with OMNITRANS' Project Manager in writing within thirty (30) days of the event or occurrence giving rise to the claim. The claim shall be in sufficient detail to enable OMNITRANS to ascertain the claim's basis and amount, and shall describe the date, place and other pertinent circumstances of the event or occurrence giving rise to the claim and the indebtedness, obligation, injury, loss or damages allegedly incurred by CONTRACTOR.

Even though a claim may be filed and/or in review by OMNITRANS, CONTRACTOR shall continue to perform in accordance with this Agreement.

23. EQUAL OPPORTUNITY

CONTRACTOR shall not discriminate against, or grant preferential treatment to, any individual or group, or any employee or applicant for employment because of race, age, religion, color, ethnicity, sex, national origin, ancestry, physical disability, mental disability, political affiliation, sexual orientation, marital status or other

status protected by law. CONTRACTOR shall take action to ensure that applicants and employees are treated without regard to the above.

24. STANDARD OF PERFORMANCE

- A. CONTRACTOR shall perform and exercise and require its subcontractors to perform and exercise due professional care and competence in the performance of the Work in accordance with the requirements of this Agreement. CONTRACTOR shall be responsible for the professional quality, technical accuracy, completeness and coordination of the Work, it being understood that OMNITRANS will be relying upon such professional quality, accuracy, completeness and coordination in utilizing the Work. The foregoing obligations and standards shall constitute the "Standard of Performance" for purposes of this Agreement. The provisions of this paragraph shall survive termination or expiration of this Agreement and/or final payment thereunder.
- B. All workers shall have sufficient skill and experience to perform the Work assigned to them. OMNITRANS shall have the right, at its sole discretion, to require the immediate removal of CONTRACTOR's personnel at any level assigned to the performance of the Work at no additional fee or cost to OMNITRANS, if OMNITRANS considers such removal in its best interests and requests such removal in writing and such request is not done for illegal reasons. Further, an employee who is removed from performing Work under this Agreement under this Article shall not be re-assigned to perform Work in any other capacity under this Agreement without OMNITRANS' prior written approval.

25. NOTIFICATION OF EMPLOYMENT OF OMNITRANS BOARD MEMBERS/ALTERNATES AND EMPLOYEES

To ensure compliance with OMNITRANS' Ethics Policy, CONTRACTOR shall provide written notice to OMNITRANS disclosing the identity of any individual who CONTRACTOR desires to employ or retain under a contract, and who (1) presently serves as a Board Member/Alternate or an employee of OMNITRANS, or (2) served as a Board Member/Alternate or an employee of OMNITRANS within the previous 12 months of the date of the proposed employment or retention by CONTRACTOR. CONTRACTOR's written notice shall indicate whether the individual will be an officer, principal or shareholder of the entity and/or will participate in the performance of this Agreement.

26. DISQUALIFYING POLITICAL CONTRIBUTIONS

In the event of a proposed amendment to this Agreement, CONTRACTOR shall provide prior to the execution of such amendment, a written statement disclosing any contribution(s) of \$250 or more made by CONTRACTOR or its

subcontractor(s) to Omnitrans Board Members/Alternates or employees within the preceding twelve (12) months of the date of the proposed amendment. Applicable contributions include those made by any agent/person/entity on behalf of CONTRACTOR or subcontractor(s).

27. COMPLIANCE WITH LAW

- A. CONTRACTOR shall familiarize itself with and perform the Work required under this Agreement in conformity with requirements and standards of OMNITRANS, municipal and public agencies, public and private utilities, special districts, and railroad agencies whose facilities and work may be affected by Work under this Agreement. CONTRACTOR shall also comply with all Federal, state and local laws and ordinances.
- B. Government regulations that directly affect the CONTRACTOR'S performance of this contract and unforeseen impacts, which neither party could have contemplated at the onset of the contract and have an unconscionable impact on the CONTRACTOR may be given special pricing consideration. The parties, in good faith, shall review established rates and may adopt any mutually agreed new rates, which shall only be effective as agreed upon by the parties. Thorough documentation including all cost elements is required to support the Contractor's claim to any relief under this clause.

28. COMPLIANCE WITH LOBBYING POLICIES

- A. CONTRACTOR agrees that if it is a Lobbyist Employer or if it has retained a Lobbying Firm or Lobbyist, as such terms are defined by OMNITRANS in its Ethics Policy, it shall comply or ensure that its Lobbying Firm and Lobbyist complies with OMNITRANS' Ethics Policy.
- B. If CONTRACTOR (Lobbyist Employer) or its Lobbying Firm or Lobbyist fails to comply, in whole or in part, with OMNITRANS' Ethics Policy, such failure shall be considered a material breach of this Agreement and OMNITRANS shall have the right to immediately terminate or suspend this Agreement.

29. PUBLIC RECORDS ACT

- A. All records, documents, drawings, plans, specifications and other material relating to conduct of OMNITRANS' business, including materials submitted by CONTRACTOR in its proposal and during the course of performing the Work under this Agreement, shall become the exclusive property of OMNITRANS and may be deemed public records. Said materials may be subject to the provisions of the California Public Records Act. OMNITRANS' use and disclosure of its records are governed by this Act.
- B. OMNITRANS will not advise as to the nature or content of documents entitled to protection from disclosure under the California Public Records Act, including interpretations of the Act or the definitions of trade secret,

confidential or proprietary. OMNITRANS will accept materials clearly and prominently labeled "TRADE SECRET" or "CONFIDENTIAL" or "PROPRIETARY" as determined by CONTRACTOR. OMNITRANS will endeavor to notify CONTRACTOR of any request of the disclosure of such materials. Under no circumstances, however, will OMNITRANS be liable or responsible for the disclosure of any labeled materials whether the disclosure is required by law or a court order or occurs through inadvertence, mistake or negligence on the part of OMNITRANS or its officers, employees and/or contractors.

- C. In the event of litigation concerning the disclosure of any material submitted by CONTRACTOR, OMNITRANS' sole involvement will be as a stake holder, retaining the material until otherwise ordered by a court. CONTRACTOR, at its sole expense and risk, shall be responsible for prosecuting or defending any action concerning the materials, and shall defend, indemnify and hold OMNITRANS harmless from all costs and expenses, including attorneys' fees, in connection with such action.

30. WAIVER/INVALIDITY

No waiver of a breach of any provision of this Agreement by either party shall constitute a waiver of any other breach of the provision, or of any other breach of the provision of the Agreement. Failure of either party to enforce any provision of this Agreement at any time shall not be construed as a waiver of that provision.

The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision.

31. FORCE MAJEURE

Performance of each and all CONTRACTOR's and OMNITRANS' covenants herein shall be subject to such delays as may occur without CONTRACTOR's or OMNITRANS' fault from acts of God, strikes, riots, or from other similar causes beyond CONTRACTOR's or OMNITRANS' control.

32. CONFIDENTIALITY

CONTRACTOR agrees that for and during the entire term of this Agreement, any information, data, figures, records, findings and the like received or generated by CONTRACTOR in the performance of this Agreement, shall be considered and kept as the private and privileged records of OMNITRANS and will not be divulged to any person, firm, corporation, or other entity except on the direct prior written authorization of OMNITRANS. Further, upon expiration or termination of this Agreement for any reason, CONTRACTOR agrees that it will continue to treat as private and privileged any information, data, figures, records, findings and the like, and will not release any such information to any person, firm, corporation or other

entity, either by statement, deposition, or as a witness, except upon direct prior written authority of OMNITRANS.

33. CONTRACTOR'S INTERACTION WITH THE MEDIA AND THE PUBLIC

- A. OMNITRANS shall review and approve in writing all OMNITRANS related copy proposed to be used by CONTRACTOR for advertising or public relations purposes prior to publication. CONTRACTOR shall not allow OMNITRANS related copy to be published in its advertisements and public relations programs prior to receiving such approval. CONTRACTOR shall ensure that all published information is factual and that it does not in any way imply that OMNITRANS endorses CONTRACTOR's firm, service, and/or product.
- B. CONTRACTOR shall refer all inquiries from the news media to OMNITRANS, and shall comply with the procedures of OMNITRANS' Public Affairs staff regarding statements to the media relating to this Agreement or the Work.
- C. If CONTRACTOR receives a complaint from a citizen or the community, CONTRACTOR shall inform OMNITRANS as soon as possible and inform OMNITRANS of any action taken to alleviate the situation.
- D. The provisions of this Article shall survive the termination or expiration of this Agreement.

34. GOVERNING LAW

The validity of this Agreement and of any of its terms or provisions, as well as the rights and duties of the parties hereunder, shall be governed by the laws of the State of California, and the proper venue of any action brought hereunder is and shall be the County of San Bernardino, California.

35. MODIFICATIONS TO AGREEMENT

Unless specified otherwise in the Agreement, this Agreement may only be modified by written mutual consent evidenced by signatures of representatives authorized to enter into and modify the Agreement. In order to be effective, amendments may require prior approval by OMNITRANS' Board of Directors, and in all instances require prior signature of an authorized representative of OMNITRANS.

36. LICENSING, PERMITS AND INSPECTION COSTS

- A. The CONTRACTOR warrants that it has all necessary licenses and permits required by the laws of the United States, State of California, and the County of San Bernardino, the Local Jurisdictions, and all other appropriate governmental agencies, and agrees to maintain these licenses and permits in effect for the duration of the Agreement. Further, FIRM warrants that its

employees, agents, and contractors and subcontractors shall conduct themselves in compliance with such laws and licensure requirements including, without limitation, compliance with laws applicable to nondiscrimination, sexual harassment and ethical behavior throughout the duration of this Agreement. CONTRACTOR further warrants that it shall not retain or employ an unlicensed subcontractor to perform work on this Project. CONTRACTOR shall notify OMNITRANS immediately and in writing of its employees', agents', contractors' or subcontractors' inability to obtain or maintain, irrespective of the pendency of any appeal, any such licenses, permits, approvals, certificates, waivers, exemptions. Such inability shall be cause for termination of this Agreement.

- B. CONTRACTOR shall procure all permits and licenses; pay all charges, assessments and fees, as may be required by the ordinances and regulations of the public agencies having jurisdiction over the areas in which the work is located, and shall comply with all the terms and conditions thereof and with all lawful orders and regulations of each such public agency relating to construction operations under the jurisdiction of such agency.

37. PRECEDENCE

Conflicting provisions hereof, if any, shall prevail in the following descending order of precedence: (1) the provisions of this Agreement, and any and all of its Amendments, Appendices, Exhibits and Attachments; (2) provisions of IFB-HRS18-68 and any and all of its Addenda, Appendices, Exhibits and Attachments; and (3) CONTRACTOR's bid dated February 14, 2019 and its Appendices, Exhibits, Attachments.

38. ENTIRE AGREEMENT

This Agreement, and any attachments or documents incorporated herein by inclusion or by reference, constitutes the complete and entire agreement between OMNITRANS and CONTRACTOR and supersedes any prior representations, understandings, communications, commitments, agreements or proposals, oral or written.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed on the date shown below, and effective on the date first hereinabove written.

OMNITRANS

BWW & COMPANY, INC.

P. Scott Graham
CEO/General Manager

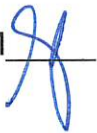
Name:
Title:

Date

Date

Federal Tax I.D. No. 82-5307733

CM



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BID SET**

PROJECT DESCRIPTION: Provide exterior generator, enclosure and all appurtenances to the east of the new San Bernardino Transit Center.

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HDR

San Bernardino Transit Center Generator Modification

Omnitrans

City of San Bernardino

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SECTION 00 26 00
SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for substitutions which are the Contractor proposed changes in products, materials, equipment, and methods of construction from those required by the Contract Documents.

1.2 RELATED REQUIREMENTS

- A. Section 01 33 00 - Submittal Procedures.
- B. Section 01 40 00 - Quality Requirements.
- C. Section 01 60 00 - Product Requirements.

1.3 SUBSTITUTION FOR SPECIFIED PRODUCTS

- A. The Contract Documents, including Contract Plans and Specifications have been prepared to complement and accommodate certain specified equipment, products or systems, and any modifications, adjustments, or redesign required to assimilate any Omnitrans approved substitution of "or equivalent" equipment, products, or systems shall be at the Contractor's sole expense. Contractor shall provide a complete and workable application and shall satisfy design criteria and aesthetic values to the sole satisfaction of Omnitrans. The Contract Time for completion of the Work specified in the Contract Documents shall not be increased by any circumstances whatsoever arising from the provisions of this Specification.

1.4 EQUIVALENTS

- A. Except as may be provided in the Special Conditions, or stated otherwise in the various sections of the Specifications, whenever any material, product, thing, or service is specified or indicated in the Contract Documents by brand, trade, patent, or proprietary name or by the name of the manufacturer, the item so specified or indicated shall be deemed to be followed by the words "or equivalent."

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- B. During bidding, the Contractor may at its own risk, submit an item not specified in the Contract Documents as an “or equivalent” for consideration by Omnitrans. Failure to do so within the time frame described in the Instructions to Bidders shall bar the Contractor from proposing or substituting an “or equivalent” item for an item specified in the Contract Documents.
- C. If the Contractor submits an “or equivalent” item, the Contractor must submit sufficient data to Omnitrans to substantiate the specific characteristics and qualities that make the “or equivalent” item the equivalent, as described in the paragraph below. Contractor shall furnish such substantiating data or arrange for any necessary tests to verify the equivalent qualities of the “or equivalent” item at the Contractor’s sole expense.
- D. Omnitrans, in its sole discretion, shall determine whether the substantiating data demonstrates that an “or equivalent” item is equivalent in all respects to the item specified in the Contract Documents. If Omnitrans determines that the “or equivalent” item has not been substantiated to be equivalent in all respects, the item specified in the Contract Documents shall be furnished and installed by the Contractor, without modification of the cost proposal amount or Contract Documents.

1.5 SUBSTITUTION REQUESTS

- A. Contractor shall submit four copies of each request for consideration identifying product or fabrication or installation method to be replaced. Include Specification section number and title and plan sheet number and title. Indicate type of substitution:
 - 1. Substitutions for Cause: Changes proposed by the Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions Required Because of Federal Government Restrictions: Changes proposed by the Contractor that result from Federal Government restrictions or other causes growing out of the national defense or war programs.
 - 3. Substitutions for Lack of Availability: Changes proposed by the Contractor because certain materials or equipment specified are entirely unobtainable or not obtainable in sufficient quantities or within a reasonable time.

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4. Substitutions for Convenience: Changes proposed by the Contractor or Omnitrans that are not required in order to meet other Project requirements, but may offer advantage to the Contractor or Omnitrans.
- B. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
1. A statement indicating why the specified product or fabrication or installation cannot be provided, if applicable.
 2. Coordination information including a list of changes or revisions needed to other parts of the Work and to construction performed by Omnitrans and separate contractors that will be necessary to accommodate the proposed substitution.
 3. A detailed comparison of significant qualities of the proposed substitution with those of the Work specified. Include an annotated copy of the applicable Specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
 4. Product data, including plans and descriptions of products and fabrication and installation procedures.
 5. Samples, where applicable or requested.
 6. Certificates and qualification data, where applicable or requested.
 7. A list of similar installations for completed projects, with project names and addresses and the names and addresses of pertinent engineers and authorities.
 8. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
 9. Research reports demonstrating compliance with building codes in effect for the Project, from recognized testing laboratories or agencies, technical trade associations, and code authorities.

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10. A detailed comparison of the Contractor's construction schedule using the proposed substitution with products specified for the Work, including the effect on the overall Contract Time. If the specified product or method of construction cannot be provided within the Contract Time, include a letter from the manufacturer, on the manufacturer's letterhead, stating the date of receipt of the purchase order and attesting to the lack of availability or delays in delivery.
 11. Cost information, including a proposal of change (if any) in the Contract Price.
 12. The Contractor's certification that the proposed substitution complies with requirements in the Contract Documents, except as indicated in the substitution request; is compatible with related materials; and is appropriate for the indicated applications.
 13. The Contractor's waiver of right to claim additional payment or time that may subsequently become necessary because of any failure of the proposed substitution to produce indicated results.
- C. Omnitrans' Action: If necessary, Omnitrans will request additional information or documentation for evaluation after receipt of a request for substitution. Omnitrans will notify the Contractor of acceptance or rejection of a proposed substitution.
1. Forms of Acceptance: Change Order, Change Notice, or Resident Engineer's Bulletin for minor changes in the Work.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause, Federal Government Restrictions or due to Lack of Availability: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to the time required for preparation and review of related submittals.
- B. Omnitrans will consider the Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Omnitrans will return requests without action, except to record noncompliance with these requirements:
 1. Requested substitution is consistent with the Contract Documents and will produce the indicated results.
 2. Requested substitution provides sustainable design characteristics that specified product provided.

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3. Substitution request is fully documented and properly submitted.
 4. Requested substitution will not adversely affect the Contractor's construction schedule.
 5. Requested substitution has received necessary approvals of authorities having jurisdiction.
 6. Requested substitution is compatible with other portions of the Work.
 7. Requested substitution has been coordinated with other portions of the Work.
 8. Requested substitution provides the specified warranty.
 9. If the requested substitution involves more than one Contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all Contractors involved.
 10. Any and all costs incurred by both parties, including reviews and design modifications, to implement the approved substitution and incorporate resultant changes into the Work shall be borne solely by the Contractor.
- C. Substitutions for Convenience: Omnitrans will consider requests for substitution if received within 45 days after the Notice of Award. Requests received after that time may be considered or rejected at the discretion of Omnitrans. Omnitrans will consider the Contractor's request for substitution when the conditions below are satisfied. If the following conditions are not satisfied, Omnitrans will return requests without action, except to record noncompliance with these requirements:
1. Requested substitution offers Omnitrans a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Omnitrans must assume. Omnitrans' additional responsibilities may include compensation to Omnitrans for redesign and evaluation services, increased cost of other construction by Omnitrans, and similar considerations.
 2. Requested substitution does not require extensive revisions to the Contract Documents.
 3. Requested substitution is consistent with the Contract Documents and will produce the indicated results.
 4. Requested substitution provides sustainable design characteristics that the specified product provided.
 5. Substitution request is fully documented and properly submitted.
 6. Requested substitution will not adversely affect the Contractor's construction schedule.
 7. Requested substitution has received necessary approvals of authorities having jurisdiction.

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8. Requested substitution is compatible with other portions of the Work.
9. Requested substitution has been coordinated with other portions of the Work.
10. Requested substitution provides the specified warranty.
11. If requested substitution involves more than one Contractor, the requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all Contractors involved.

PART 3 - EXECUTION (NOT USED)

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

SECTION 01 11 00

Summary of Work

PART 1 - GENERAL

1.01 DESCRIPTION

A. The general intent of the contract, specifications, drawings, and other contract documents is that the Contractor shall:

1. Furnish tools, qualified labor, material, equipment, qualified superintendence, and services, assurances and guarantees, and assumptions of risk and responsibility, necessary for the performance of the Work as set forth in the contract documents unless otherwise specifically provided.
2. Begin work promptly and proceed expeditiously and continuously without cessation or shutdown of Work unless otherwise specifically approved in writing by the Engineer, or directed by the contract documents.
3. Perform, complete, and make ready for its intended purpose, within the times specified, including additional times provided for certain conditions, the work or parts thereof covered by the contract, all in accordance with drawings, specifications, and modifications thereto and directions or instructions the Engineer may give to supplement the drawings and specifications. The Contractor shall retain sole responsibility and expense for quality control of the work.

B. The Work shall be performed at the following location:

San Bernardino Transit Center
599 West Rialto Avenue
San Bernardino, California 92410

The hours of operation are:

Days	Last Bus	1 st Bus	Lobby Open	Lobby Closed
M-F	11:30pm	3:40am	6:00am	9:00pm
Weekends	5:30pm	3:40am	9:00am	5:00pm

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- C. Words and abbreviations which have well-known technical or trade meanings are used in the contract documents in accordance with such recognized meanings.
- D. The organization of the specifications into divisions, sections, parts, and paragraphs, and the arrangement of the drawings, shall not control the Contractor in dividing the work among subcontractors or in establishing the extent of work to be performed by any trade. Study and compare the contract documents and immediately report to the Engineer any error, inconsistency, or omission that may be discovered. Contractor shall be liable to Omnitrans for damage resulting from unreported errors, inconsistencies, or omissions in the contract documents.
- E. The Work of the project requires that the Owner (Omnitrans, or the Agency) continue bus service and operations at its San Bernardino Transit Center location during the full duration of the Contract.
 - 1. It will be the responsibility of the Contractor to stage the construction activities at the project site (particularly, but not limited to, demolition and installation).
- F. Ownership of Materials:
 - 1. Materials furnished by the Contractor under this contract shall become the property of Omnitrans.
 - 2. Omnitrans-furnished materials shall remain the property of Omnitrans.
- G. General Summary of Work:
 - 1. Work to be performed by Contractor shall consist of the construction of the work shown on the drawings and detailed in the specifications.
 - 2. Work shall be performed by Contractor in compliance with the City of San Bernardino's established Working Hours (7 am – 5 pm). If work will be performed outside those works (ie: night work), compliance with the City's decibel level threshold will be required.
 - 3. The descriptions provided in this section are general in nature and are not meant to detail all work required by the contract documents.

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4. The work under this contract is the construction of the SBTC Generator. Features of the Work shall include:
- a. A standby diesel electrical power generator and transfer system at the SBTC.
 - b. Complete mobilization and demobilization.
 - c. Obtain necessary construction permits.
 - c. Modifications and construction of the generator yard to a portion of the existing Maintenance Building, including:
 - (1) Concrete work, including: concrete formwork, concrete surface sealer, reinforcing steel, concrete materials and proportioning, and concrete mixing, placing, jointing, and curing.
 - (2) Metal including: galvanic corrosion protection, structural steel/architectural exposed steel, bollards, wire welded mesh.
 - (3) Door hardware for gates.
 - (4) Finishes including: exterior painting and graffiti-resistant coatings.
 - (5) Signage.
 - (6) Fire extinguishers.
 - (7) Electrical work including low-voltage control wiring, copper wire, CAT 6 cable, conduits, various boxes and enclosures, GFI outdoor receptacles, standby generator, automatic transfer switch, exterior building lighting, motion sensor, LED lighting, installation, commissioning, and training.
 - (8) Electronic safety and security systems including: card access control system, video surveillance cameras, camera mounting hardware, camera license, CAT 6 cable, installation, commission, and training.
 - (9) Earthwork including: site preparation, demolition, cutting, patching, site excavation, trenching, backfilling, and compacting for utilities.
 - (10) Exterior concrete paving and architectural concrete.

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- d. Miscellaneous site work including
 - (1) Verify existing conditions and location of utilities.
 - (2) Protect existing utilities.
- 5. Phasing of utility service cut-overs, including the following required limitations:
 - a. Electrical:

Coordinate with owner prior to interrupting service to add new panel/conduit and testing/certifying system.

1.02 INTENT OF DRAWINGS AND SPECIFICATIONS

- A. The intent of the Plans and Specifications is to prescribe the details for the construction and completion of the Work that the Contractor undertakes to perform in accordance with the terms of the Contract. Where the Plans or Specifications describe portions of the Work in general terms, but not complete detail, it is understood that only commonly accepted industry practice is to prevail. Unless otherwise specified, the Contractor shall perform all the Work involved in executing the Contract in a satisfactory and workmanlike manner.
- B. Omnitrans will determine whether the Work has been completed in accordance with the Contract Documents. Omnitrans will decide all questions that may arise as to the quality or acceptability of materials furnished and Work performed, and render final judgment regarding the interpretation of the Contract Documents.
- C. Plans, Standard Specifications, Project-specific Specifications, and referenced specifications or standards are essential parts of the Contract Documents, and a requirement indicated in one is binding as though indicated in all.
- D. Words and abbreviations that have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.
 - 1. The word "Furnish" or the word "Install" or the word "Perform" or the word "Provide" or the word "Supply," or any combination or similar directive or usage thereof, shall mean furnishing and incorporating in the Work including all necessary labor, materials, equipment, and everything

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necessary to perform the Work indicated, unless specifically limited in the context used.

- E. The organization of the Specifications into divisions, sections, parts, and paragraphs, and the arrangement of the Plans, shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade. The Contractor shall examine and compare all of the Contract Documents and immediately report to Omnitrans any error, inconsistency, or omission that may be discovered. Contractor shall be liable to Omnitrans for any damage resulting from any such unreported errors, inconsistencies, or omissions in the Contract Documents.
1. The Specifications may vary in form, format and style. Some specification sections are written in varying degrees of streamlined or declarative style and some sections may be relatively narrative by comparison. Omissions of such words and phrases as "the Contractor shall," "in conformity with," "as shown," or "as specified" are intentional in streamlined sections. Omitted words and phrases shall be supplied by inference. Similar types of provisions may appear in various parts of a section or articles within a part depending on the format of the section. The Contractor shall not take advantage of any variation of form, format or style in making claims for Extra Work.
 2. The cross referencing of specification sections under the subparagraph heading "Related Requirements" and elsewhere within each specification section is provided as an aid and convenience to the Contractor. The Contractor shall not rely on the cross referencing provided and shall be responsible to coordinate the entire Work under the Contract Documents and provide a complete Project whether or not the cross referencing is provided in each section or whether or not the cross referencing is complete.
- F. The Work herein covered is to be completed in accordance with the Specifications, the accompanying Plans, and such instructions or directions as Omnitrans may give to supplement Plans and Specifications. Wherever the words "directed," "permitted," "approved," "acceptable," "satisfactory to," or similar words or phrases occur in the Contract Documents, they shall be understood to be functions of Omnitrans.

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- G. Omnitrans shall not be responsible for and shall not have control or charge over the acts or omissions of the Contractor, Subcontractors, or any of their agents or employees, or any other persons performing any of the Work.

1.03 REFERENCE MATERIAL

Reference Specifications or Standards referred to in the Plans, Standard Specifications, or Project-specific Specifications shall be the most recent version in effect as of the bid date of this Contract. Where referenced standards refer to the "Specifications," this shall mean Standard Specifications, the Contract Plans, and the Project-specific Specifications of this Contract. Where referenced standards refer to the "special provisions or conditions," this shall mean the Contract Plans or the Specifications of this Contract. The Contractor is responsible for obtaining all reference material at its own expense, and for making itself familiar with the requirements therein.

PRODUCTS (NOT USED)

EXECUTION (NOT USED)

MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 11 13
WORK COVERED BY THE CONTRACT DOCUMENTS

PART 1 - GENERAL

1.1 SUMMARY

This section summarizes requirements and provisions for the Contractor's execution of the Work under this Contract.

1.2 DESCRIPTION

Refer to San Bernardino Transit Center Emergency Generator Modifications Plans and Specifications for a summary of the Work. The general intent of the Contract, Specifications, Plans, and all other Contract Documents and provisions thereof is that the Contractor shall:

1. Furnish all tools, qualified labor, materials, equipment, qualified superintendence and all services, other incidentals, assurances and guarantees, assumptions of risk, and responsibility for the performance of the Work as set forth in the Contract Documents.
2. Begin Work promptly and proceed expeditiously and continuously without cessation or shutdown of Work unless otherwise specifically approved in writing by Omnitrans, or directed by the Contract.
3. Perform, complete, and make ready for its intended purpose, within the times specified, including additional times provided for certain conditions, the Work or parts thereof covered by the Contract, all in accordance with Plans, Specifications, and any addendum thereto and such direction or instructions as Omnitrans may give from time to time pursuant to the Contract Documents. Contractor shall retain sole responsibility and expense for Quality Control of their Work products.
4. Any construction staging plans or details are not meant to be contradictory to the requirements set forth in the Contract Documents. It is the responsibility of the Contractor to schedule the construction activities at each site of the Work, using the Site-Specific Work Plan (SSWP) process (see also Section 01 14 00 "Work Restrictions").

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1.3 INTENT OF PLANS AND SPECIFICATIONS

The intent of the Plans and Specifications is to prescribe the details for the construction and completion of the Work that the Contractor undertakes to perform in accordance with the terms of the Contract. Where the Plans or Specifications describe portions of the Work in general terms, but not complete detail, it is understood that only commonly accepted industry practice is to prevail. Unless otherwise specified, the Contractor shall all the Work involved in executing the Contract in a satisfactory and workmanlike manner.

Omnitrans will determine whether the Work has been completed in accordance with the Contract Documents. Omnitrans will decide all questions that may arise as to the quality or acceptability of materials furnished and Work performed, and render final judgment regarding the interpretation of the Contract Documents.

Plans, Standard Specifications, Project-specific Specifications, and referenced specifications or standards are essential parts of the Contract Documents, and a requirement indicated in one is binding as though indicated in all.

Words and abbreviations that have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.

1. The word "Furnish" or the word "Install" or the word "Perform" or the word "Provide" or the word "Supply," or any combination or similar directive or usage thereof, shall mean furnishing and incorporating in the Work including all necessary labor, materials, equipment, and everything necessary to perform the Work indicated, unless specifically limited in the context used.

The organization of the Specifications into divisions, sections, parts, and paragraphs, and the arrangement of the Plans, shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade. The Contractor shall examine and compare all of the Contract Documents and immediately report to Omnitrans any error, inconsistency, or omission that may be discovered. The Contractor shall be liable to Omnitrans for any damage resulting from any such unreported errors, inconsistencies, or omissions in the Contract Documents.

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2. The Specifications may vary in form, format and style. Some specification sections are written in varying degrees of streamlined or declarative style and some sections may be relatively narrative by comparison. Omissions of such words and phrases as "the Contractor shall," "in conformity with," "as shown," or "as specified" are intentional in streamlined sections. Omitted words and phrases shall be supplied by inference. Similar types of provisions may appear in various parts of a section or articles within a part depending on the format of the section. The Contractor shall not take advantage of any variation of form, format or style in making claims for Extra Work.
3. The cross referencing of specification sections under the subparagraph heading "Related Requirements" and elsewhere within each specification section is provided as an aid and convenience to the Contractor. The Contractor shall not rely on the cross referencing provided and shall be responsible to coordinate the entire Work under the Contract Documents and provide a complete Project whether or not the cross referencing is provided in each section or whether or not the cross referencing is complete.

The Work herein covered is to be completed in accordance with the Specifications, the accompanying Plans, and such instructions or directions as Omnitrans may give to supplement Plans and Specifications. Wherever the words "directed," "permitted," "approved," "acceptable," "satisfactory to," or similar words or phrases occur in the Contract Documents, they shall be understood to be functions of Omnitrans.

Omnitrans shall not be responsible for and shall not have control or charge over the acts or omissions of the Contractor, Subcontractors, or any of their agents or employees, or any other persons performing any of the Work.

1.4 REFERENCE MATERIAL

Reference Specifications or Standards referred to in the Plans, Standard Specifications, or Project-specific Specifications shall be the most recent version in effect as of the bid date of this Contract. Where referenced standards refer to the "Specifications," this shall mean Standard Specifications, the Contract Plans, and the Project-specific Specifications of this Contract. Where referenced standards refer to the "special provisions or conditions," this shall mean the Contract Plans or the Specifications of this Contract. The Contractor is responsible for obtaining all reference material at its own expense, and for making itself familiar with the requirements therein.

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PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 11 15
DEFINITION OF TERMS AND REFERENCE STANDARDS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section provides definition of terms, abbreviations and reference standards cited in the Contract Documents. The following definitions supplement definitions provided throughout the Contract Documents.

1.2 DEFINITION OF TERMS (NOT USED)

1.3 ABBREVIATIONS

- A. Association & General Abbreviations:

AA	Aluminum Association
AABC	Associated Air Balance Council
AAIEE	American Institute of Electrical and Electronics Engineers
AAMA	Architectural Aluminum Manufacturers Association
AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ADA	Americans with Disabilities Act
ADC	Air Diffusion Council
AGA	American Gas Association
AGC	Associated General Contractors
AI	Asphalt Institute
AISC	American Institute of Steel Construction, Inc.
AISI	American Iron and Steel Institute
AMCA	Air Moving and Conditioning Association, Inc.
ANSI	American National Standards Institute
APA	American Plywood Association
APWA	American Public Works Association
ARI	Air Conditioning and Refrigeration Institute
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASSE	American Society of Sanitary Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers Association

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AWPB	American Wood Preservers Bureau
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
BWC	Bridge Welding Code
BWS	Bridge Worker Safety
CBM	Certified Ballast Manufacturers
CCR	California Code of Regulations (formerly California Administrative Code)
CFR	Code of Federal Regulations
CLFMI	Chain Link Fence Manufacturers Institute
CISPI	Cast-Iron Soil Pipe Institute
CPUC	California Public Utilities Commission
CRSI	Concrete Reinforcing Steel Institute
CSI	Construction Specifications Institute
CS	Commercial Standard, US Department of Commerce
CTIOA	Ceramic Tile Institute of America
DBE	Disadvantaged Business Enterprise
DHI	Door and Hardware Institute
DOD	Department of Defense (leading symbol)
DOJ	U.S. Department of Justice
DOT	U.S. Department of Transportation
EEO	Equal Employment Opportunity
EEOC	Equal Employment Opportunity Commission
EIC	Employee-In-Charge
EPA	United States Environmental Protection Agency
ETL	Electrical Testing Laboratories
FAR	Federal Acquisition Regulations
Fed Spec	Federal Specification or Standard
FGMA	Flat Glass Marketing Association
FHWA	Federal Highway Administration
FIA	Factory Insurance Association
FM	Factory Mutual
FS	Federal Specifications
FTA	Federal Transit Authority
GA	Gypsum Association
GAO	U.S. Government Accountability Office
ICBO	International Conference of Building Officials
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
ISO	International Standards Organization

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MIA	Masonry Institute of America
MIL	Military Specification or Standard (leading symbol)
MLMA	Metal Lath Manufacturers Association
ML/SFA	Metal Lath/Steel Framing Association
MS	Military Specifications
NBS	National Bureau of Standards (now NIST, q.v.)
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFC	National Fire Code
NFPA	National Fire Protection Association
NIST	National Institute of Standards and Technology (formerly NBS, q.v.)
NLMA	National Lumber Manufacturers Association
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PS	Product Standard, US Department of Commerce
RIS	Redwood Inspection Service
SAE	Society of Automotive Engineers
SDI	Steel Deck Institute
SDI	Steel Door Institute
SFM	State Fire Marshal
SIGMA	Sealed Insulating Glass Manufacturers Association
SJI	Steel Joist Institute
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SPR	Simplified Practice Recommendations, U.S. Dept. of Commerce
SSPC	Steel Structures Painting Council
SSPWC	Standard Specifications and Plans for Public Works Construction
SSWP	Site Specific Work Plan
TCA	Tile Council of America
UBC	Uniform Building Code
UFAS	Uniform Federal Accessibility Standards
UL	Underwriters' Laboratories, Inc.
WCLIB	West Coast Lumber Inspection Bureau
WIC	Woodwork Institute of California
WWPA	Western Wood Products Association

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B. Text Abbreviations:

AMP or amp	Ampere
AWG	American Wire Gage
CFM or cfm	Cubic feet per minute
FPM or fpm	Feet per minute
FPS or fps	Feet per second
Ft. or '	Feet
GPM or gpm	Gallons per minute
in. or "	Inches
Kip or kip	thousand pounds
Ksi or ksi	thousand pounds per square inch
Ksf or ksf	thousand pounds per square foot
KV or kV	Kilovolt
KVA or kva	Kilovolt amperes
KW or kW	Kilowatt
KWH or kwh	Kilowatt hour
LF or lf	linear foot
MPH or mph	Miles per hour
PCF or pcf	Pounds per cubic foot
PSF or psf	Pounds per square foot
PSI or psi	Pounds per square inch
SF or sf	Square foot
SY or sy	Square yard

1.4 REFERENCE STANDARDS

- A. For products or workmanship specified by association, trade, or Federal Standards, the Contractor shall comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Contractor shall conform to reference standards by date of issue current as of date of Agreement between Omnitrans and the Contractor.
- C. Contractor shall maintain the latest copy of applicable sections of standards at Work Site during submittals, planning, and progress of specific Work, until substantial completion, and shall make the standards available for Omnitrans' use upon request.

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- D. Should specified Reference Standards (those standards listed in the Schedule of References in addition to those codes and regulations specified elsewhere in the Specifications) conflict with the Contract Documents, the Contractor shall request clarification from Omnitrans before proceeding. If conflict exists, the Specification as determined by Omnitrans shall apply.

1.5 SCHEDULE OF REFERENCES

- A. ACI: American Concrete Institute
- B. AGC: Association of General Contractors
- C. ANSI: American National Standards Institute
- D. ASTM: American Society for Testing and Materials
- E. AWWA: American Wood-Preservers' Association
- F. CALOSHA: California Office of Safety and Health Administration
- G. CALTRANS: State of California Department of Transportation
- H. CAMUTCD: California Manual on Uniform Traffic Control Devices
- I. CITY: City of San Bernardino
- J. CPUC: California Public Utilities Commission
- K. CRSI: Concrete Reinforcing Steel Institute
- L. FTA: Federal Transit Administration
- M. GCOR: General Code of Operating Rules
- N. MSHA: Mine Safety and Health Administration
- O. NRMCA: National Ready Mixed Concrete Association
- P. OSHA: Office of Safety and Health Administration
- Q. SSPWC: Standard Specifications for Public Works Construction (Greenbook)
- R. USDOT: United States Department of Transportation

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PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 14 00
WORK RESTRICTIONS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section outlines requirements and provisions for rules and hours of operation for the Contractor execution of the Work under this Contract.

1.2 RELATED REQUIREMENTS

- A. Section 01 14 19 - Coordination with Utilities.
- B. Section 01 35 23 - Site Safety Requirements.

1.3 REFERENCE STANDARDS

- A. Comply with the provisions of all local, State, and Federal codes, specifications, standards, and industry recommended practices including:
 - 1. SSPWC: Standard Specifications for Public Works Construction.
 - 2. CALOSHA: California Occupational Safety and Health Administration regulations.
 - 3. OSHA: Federal Occupational Safety and Health Administration regulations.

1.4 CONTRACTOR'S RESPONSIBILITY

- A. Contractor shall perform Work in accordance with the Contract and all applicable codes, ordinances, rules, regulations, orders, and other legal requirements of governmental bodies and public agencies having jurisdiction, including Omnitrans.
- B. Any damage caused by the Contractor to structures, embankment, third-party property, or any other facilities shall be repaired at the Contractor's expense to a condition equal to or better than the condition prior to the Contractor entry, and as accepted by Omnitrans. At the sole discretion of Omnitrans, Omnitrans may direct that repairs be performed by other Contractors. The charges for such repairs shall be deducted from the Contractor's payment due under this Contract.
- C. Items shown on the plans to be protected in place shall be in accordance with SSPWC, Protection and Restoration of Existing Improvements, at no additional cost to Omnitrans.

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1.5 CONTRACTOR USE OF WORK SITE

- A. Contractor shall coordinate access, use, and preparation of facilities adjacent to the Project areas with respective owners and agencies. Coordination shall include but not be limited to the following:
1. Contractor shall arrange Work Site access with adjacent property owners for the use of private property, as the Contractor deems necessary for the Work.
 2. Contractor may submit a staging plan for review by Omnitrans.
 3. Contractor shall obtain approval from all governing agencies, utility companies and agencies, and private property owners for any use of designated or alternative staging areas.
- B. Rights-of-Way: Rights-of-way, easements, or rights-of-entry for the Work will be provided by Omnitrans. The Contractor shall make arrangements, pay for, and assume all responsibility for acquiring, using, and disposing of Work areas and facilities temporarily required that are necessary in addition to those provided by Omnitrans. The Contractor shall indemnify and hold Omnitrans harmless for all claims for damages caused by such actions.
- C. Work on Private Property: Omnitrans will make contracts with private property owners for the construction easement areas indicated on the Contract Plans. Any additional easement areas requested by the Contractor shall be obtained by separate contract between the Contractor and the property owner, and shall be solely at the Contractor's own risk and expense. Omnitrans will not be a party to nor assume any liability for those separate contracts. The Contractor shall transmit copies to Omnitrans of all executed property agreements, easements and contracts with third parties within 3 working days of the execution. The Contractor shall coordinate scheduling of Work to be performed on private property with property owner and property tenant so as to minimize inconvenience to the property owner and property tenant.
- D. Property Rights in Land and Improvements: The Contractor shall make no arrangements with any person or entity to permit occupancy or use of any land, structure, or building within the limits of the Work, for any purpose whatsoever, either with or without compensation, in conflict with any agreement between Omnitrans and any third-party owner, former owner, or tenant of such land, structure, or buildings.
- E. Contractor shall confine Work Site operations to areas permitted by law, ordinances, permits, and the Contract.

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- F. Contractor shall consider the safety of the Work, operations personnel, and property on and adjacent to the Work Site when determining amount, location, movement, and use of materials and equipment on Work Site. The Contractor shall not load Work Site with excessive amounts of material, equipment, or other items that have the potential to interfere with the Work or with operations. The Contractor shall relocate stored products, equipment, and materials that interfere with operations or public and private utilities. Materials and equipment shall not be so piled, stored, or parked when not in use.
- G. Contractor shall adhere to the noise levels and hours of Local Ordinances.
- H. Contractor shall be responsible for coordinating its Work with all property owners affected by the Contractor's operations. The Contractor shall protect the general public and residents within Work Site boundaries from Work-related activities, and shall not unnecessarily inconvenience those persons by Work activities.
- I. Contractor shall submit for Omnitrans approval the proposed location of any staging areas not otherwise shown on the plans.
- J. Contractor will preserve drainage facilities throughout the duration of the Work so that there is no pending or accumulation of water in any Work Site area, there is no flow of water diverted toward the track or out of normal drainage channels, and all culvert inlets and outlets are kept free of debris.
- K. Except where specifically designated in the design of the Work, the Contractor will preserve the ability of maintenance contractors to access the right-of-way using highway vehicles. If the original right-of-way roads become blocked with the Contractor's materials, equipment, or excavations or spoils, alternate routes must be arranged.
- L. Contractor will preserve existing right-of-way fences and walls, and will replace any such fences or walls damaged during the work to the satisfaction of the owner(s) of the fences or walls.

1.6 WORK ZONE LIMITATIONS OF SITE

- A. Contractor shall coordinate available space with Omnitrans, and other entities needing access and space so as to produce the best overall efficiency in performance of the Work.

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- B. Contractor shall schedule deliveries so as to minimize space and time requirements for storage of materials and equipment on site, with minimal disruption to the adjacent property owners and their operations. Pickups and deliveries requiring vehicular traffic adjacent to tracks shall be performed only during normal working hours and as approved by Omnitrans.

1.7 WORK WINDOWS

- A. Contractor shall not perform any fieldwork during New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas unless pre-approved by Omnitrans.

1.8 WORKS BY OTHERS

- A. Contractor may be required to interface with forces working for other contractors, utility companies, public agencies, private companies, and Railroad Operators. In addition, routine or emergency maintenance of existing facilities may occur during the progress of the Work. Such activities shall have priority and Omnitrans shall make efforts to minimize interference where possible.

1.9 HOURS OF OPERATIONS

- A. Refer to Special Conditions.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 14 19
COORDINATION WITH UTILITIES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section outlines requirements and provisions regarding the Contractor responsibility for coordination with all utility owners to ensure that all utilities are clearly marked, protected for the duration of the construction activities or relocated. The exhibit to this Specification Section entitled "Project Utility Responsibilities," when included in the Project-specific Specifications, shall identify each of the utilities affected by the Work.

1.2 RELATED REQUIREMENTS

- A. Section 01 33 00 - Submittal Procedures.

1.3 SUBMITTALS

- A. Where required by the Contract Documents, the Contractor shall prepare Shop Drawings showing existing utility information and the installation of any utility protection facilities or features to be established on the site prior to initiating construction, maintained for the duration of construction and removed upon completion of construction. This information submitted to the utility owner and Omnitrans shall identify all necessary Work to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction.
- B. Contractor shall coordinate with all utility owners and authorities having jurisdiction over these facilities and shall remove and relocate existing utilities and equipment whenever an existing installation interferes with new construction. Carefully examine each location and make arrangements in advance with Omnitrans to ensure that construction has a minimum impact on the daily operations of Omnitrans and the Railroad Operators.
- C. Where required by a utility owner or an authority having jurisdiction over an underground facility, within 15 calendar days of the effective date of the NTP, the Contractor shall submit a potholing plan consisting of a plan, schedule, and sequencing to identify and investigate by vacuum potholing all underground utilities and facilities.
- D. The relocated utilities shall be specifically identified in the record documents. The types of material and methods of relocation and reconnection of utilities shall match the existing unless otherwise noted.

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- E. Contractor shall furnish Omnitrans copies of all utility required permits or approvals obtained prior to starting Work at or adjacent to the utility facilities.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 GENERAL

- A. Prior to commencing construction, Contractor shall engage an underground utility detection company to detect and locate all existing underground utilities within the limits of work. All underground utility information, including the approximate depth, shall be clearly marked on surface and existing pavement for reference. The information shall also be recorded in the Project files. Also before commencing work, Contractor shall notify DigAlert at 8-1-1 or www.digalert.org, no less than 48 hours in advance of excavation and advise Omnitrans of DigAlert Identification number two working days before excavation begins. Before commencing work, Contractor shall also notify the Railroad Operators and utility owners which have underground facilities within the limits of work, but which do not participate in DigAlert, in accordance with each Railroad Operators' or utility owners' notification requirements, and have them locate and mark the facilities within the area of excavation (or demolition). Contractor shall keep such markings current in accordance with the requirements of DigAlert, the Railroad Operators and utility owners.

3.2 POTHOLING FOR SUBSURFACE UTILITIES AND FACILITIES

- A. Where required by a utility owner or an authority having jurisdiction over an underground facility, within 30 calendar days of the effective date of the NTP and after Omnitrans' approval of the Contractor's potholing plan, the Contractor shall mobilize at least one potholing crew. The potholing crew will work on a continuous basis to identify, locate and verify the location of underground utilities at all project locations. It is the Contractor's responsibility to submit the potholing plan and obtain Omnitrans' approval within this time period.
- B. Potholing and verification of utility facilities shall be completed at least 30 days in advance of any excavation. The intent of performing potholing and verification of utility facilities well in advance of any relocation, protection or modification is to preclude any delays or disruption arising from utility relocation. Accordingly, any failure on the Contractor's part to perform the potholing and verification of utility facilities within the time frames listed above shall be sufficient cause to reject any claims by the Contractor for delays associated with utility relocation.

HDR

San Bernardino Transit Center Generator Modification

Omnitrans

City of San Bernardino

COORDINATION WITH UTILITIES

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3.3 CONTRACTOR FIELD WORK REQUIREMENTS

- A. Contractor shall provide personnel, equipment, temporary facilities, construction materials, tools, and supplies at the Work Site whenever scheduled for general utility location and protection requirements, subject to the following:
1. Contractor shall pothole and physically locate all utilities under or within 2 feet horizontally of any footings.
 2. Contractor shall notify utility owner when excavating within 5 feet of any natural gas pipeline. Contractor shall hand-dig within 5 feet of any natural gas pipeline and, where required, protect the area with secured fencing.
 3. Contractor shall notify utility owner when excavating within 5 feet of any oil pipeline and, if required, provide standby personnel. Contractor shall hand-dig within 5 feet of any oil pipeline.
 4. Contractor shall notify utility owner when excavating within 5 feet of any electrical facility and, if required, provide standby personnel. Contractor shall hand-dig within 5 feet of any electrical facility.
 5. Contractor shall notify utility owner when excavating within 5 feet of telephone, cable television or fiber optic facilities. Contractor shall hand-dig within 5 feet of telephone, cable television or fiber optic facilities.
 6. Contractor shall comply with all requirements set forth by respective utility owner which may be more stringent than described herein.
- B. All utilities, unless otherwise indicated, shall remain in operation during construction. Contractor shall be liable for any injury, line breakage, and damage.
- C. At the time of NTP or Project kick-off meeting, Omnitrans shall provide telephone numbers for entities to be contacted in case of emergency. Contractor shall ensure that personnel stationed at the site of the Work have immediate access to these telephone numbers.

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

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END OF SECTION

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EXHIBIT
PROJECT UTILITY RESPONSIBILITIES

UTILITY RELOCATIONS/REARRANGEMENT

REFERENCE SPECIFICATION SECTION: _____

CONTACTS AND RESPONSIBILITIES

Name of Utility:

Contact Person:

Address:

Phone:

Email:

PERFORMANCE RESPONSIBILITY

PAYMENT RESPONSIBILITY

Design done by: _____

Construction by: _____

Inspection by: _____

☐ Yes ☐ No Third Party Coordination and paid by: Omnitrans

NOTES:

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SECTION 01 21 00
ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements governing allowances. Certain items are specified in the Contract Documents by allowances which are established in lieu of additional requirements and to defer selection of actual materials, products or equipment to a later date when direction will be provided to the Contractor. If necessary, additional requirements will be issued by Change Order.
- B. Allowances may be stated as unit prices or as lump sum amounts, as noted herein. Approval of final quantities required and the basis for acceptable pricing for items specified by an allowance shall be the sole responsibility of Omnitrans prior to payment.

1.2 RELATED REQUIREMENTS

- A. Section 01 22 05 - Lump Sum Prices.

1.3 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Omnitrans of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. When specified or at Omnitrans' request, obtain proposals and prepare detailed pricing for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Omnitrans from the designated supplier.

1.4 ACTION SUBMITTALS

- A. Submit proposals for purchase of products, equipment, facilities, systems or for payment of services included in allowances, in the form and detail specified for Change Orders. Omnitrans will review the Contractor's information relevant to the proposed price including all pricing documentation supporting quotations from vendors, calculations, estimating factors, risk analyses, equipment rates, productivity, as well as any other items reasonably required by Omnitrans to satisfy itself as to the reasonableness of the Contractor's assumptions used to determine price.

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1.5 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in the same manner as for other portions of the Work.

1.6 LUMP SUM, UNIT COST, AND QUANTITY ALLOWANCES

- A. Allowances shall include the cost to the Contractor of specific products and materials ordered or selected by Omnitrans under the allowance, and shall include taxes, insurance, freight, and delivery to the Project site.
- B. Whenever the actual cost of the materials, products, or equipment is more or less than the allowance amount, the Contract Price will be finally adjusted to reflect the actual cost without markup.
- C. Unused Materials: After installation has been completed and accepted, return unused materials purchased under an allowance to the manufacturer or supplier for credit to Omnitrans or if requested by Omnitrans, retain and prepare unused material for storage by Omnitrans. Deliver unused material to Omnitrans storage space as directed. Deposits paid and refunds later returned to Contractor shall be fully credited to Omnitrans.
- D. Quantity allowances include all costs of materials, labor, equipment, overhead, profit, all taxes, insurance, freight, delivery, and all other charges for the allowance. In the event a lesser or greater quantity of the allowance item is used, the Contract Price shall be finally adjusted to reflect the actual quantities at the Contract unit prices.

1.7 FINAL ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, Omnitrans shall pay the difference between the actual cost incurred and the allowance amount.
- B. Include installation costs where indicated as part of the allowance.
- C. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit cost and lump sum allowances. Omnitrans reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

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PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to the manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation such that each allowance item is completely integrated and interfaced with related Work. Furnish templates as required to coordinate installation.

PART 4 - MEASUREMENT AND PAYMENT

- A. Contractor shall maintain such records, as Omnitrans deems sufficient to substantiate the direct cost of Allowance Work. Itemize all costs for labor, materials, and equipment and report the total of costs to date for the Allowance Work. The reports shall include names, hours worked, and rates of pay for all labor classifications (excluding general foreman) that are engaged in the actual direct performance of the Work.

END OF SECTION

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SECTION 01 22 05
LUMP SUM PRICES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for Lump Sum Prices which are contract items in the Bid Item List. Lump Sum Prices include the costs of all materials, equipment, labor, delivery, shipping charges, unloading, handling, installation, overhead and profit, taxes, insurance, and other direct and indirect costs.

1.2 RELATED REQUIREMENTS

- A. Section 01 21 00 – Allowances.

1.3 PROCEDURES

- A. The Contactor's performance of the Work for which lump sum payments will be made shall be listed in the Schedule of Contract Values. Payment for each lump sum contract item provides full compensation to execute and complete the Work covered by each contract item in accordance with the Contract Documents.
- B. Where Lump Sum Price contract items require related Work specified in other Sections of the Contract Documents, but which is not specifically mentioned in the Lump Sum Price description, the Contractor shall consider the related Work incidental to the total Contract Price.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PART 4 - MEASUREMENT AND PAYMENT

- A. Progress payment will be made based on percentage completion of individual Lump Sum contract items established on the Bid Item List. For the purposes of measuring the percentage completion, the Contractor shall provide a measurable quantity breakdown for each contract item for which payment is requested. Omnitrans must pre-approve Contractor's quantity breakdown before making partial payment.

END OF SECTION

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SECTION 01 29 73
SCHEDULE OF VALUES

PART 1 - GENERAL

1.1 SUMMARY

This Section specifies administrative and procedural requirements necessary to prepare and process the Schedule of Values.

1.2 RELATED REQUIREMENTS

Section 01 22 05 - Lump Sum Prices.

1.3 DEFINITIONS

Schedule of Values: A tabulation furnished by the Contractor and approved by Omnitrans, allocating portions of the Contract Price to various portions of the Work which shall be used as the basis for reviewing the Contractor's applications for payment.

1.4 SCHEDULE OF VALUES DEVELOPMENT

- A. Coordinate preparation of the Schedule of Values with preparation of the Contractor's construction schedule.
- B. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
 - 1. Application for Payment forms with continuation sheets.
 - 2. Submittal schedule.
 - 3. Items required to be indicated as separate activities in the Contractor's construction schedule.
- C. Where the Work is separated into phases requiring separately phased payments, provide values correlated with each phase of payment. Where the Contractor's construction schedule defines separate elements of the Work, provide values correlated with each element.
- D. Provide a breakdown of the Contract Price in enough detail to facilitate continued evaluation of applications for payment and progress reports. Provide multiple line items for principal subcontract amounts in excess of one-half of one-percent of the Contract Price.
- E. Each item of the Schedule of Values shall include its proportionate share of profit and all other expenses involved.

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1. The summation of extensions of quantities and unit prices and related costs shall equal the amount of the lump-sum price of the applicable Contract bid item indicated in the Schedule of Values.
 2. Round amounts to the nearest whole dollar; the total shall equal the Contract Price.
 3. Provide a separate line item in the Schedule of Values for mobilization and demobilization for each time and part and phase of the work where the Contractor is required to mobilize and demobilize its operations.
 4. Allowances: Provide a separate line item in the Schedule of Values for each allowance. Show line item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
 5. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general profit for each item.
 6. Temporary facilities and other major cost items that are not direct cost of actual work in place may be shown either as separate line items in the Schedule of Values or distributed within the costs allocated to the total sum of the Schedule of Values.
- F. Omnitrans will not approve the Schedule of Values if the amounts are unreasonable and unbalanced. The Contractor shall provide any supporting documentation necessary for Omnitrans to determine acceptability.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Preparation shall occur during the Limited Notice to Proceed. The Contractor shall submit to Omnitrans a detailed Schedule of Values that must be approved by Omnitrans prior to the Notice to Proceed.

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3.2 APPROVAL

- A. Upon approval by Omnitrans, the Schedule of Values will form a basis for determining the compensation payable to the Contractor. Payment will be based on actual progress of Work.

3.3 REVIEW AND RESUBMITTAL

- A. If review by Omnitrans indicates that changes to the Schedule of Values are required, the Contractor shall revise and resubmit in the same manner as the original Schedule of Values was approved.

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 31 00
PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

This Section contains administrative provisions for coordinating construction operations.

1.2 GENERAL COORDINATION PROCEDURES

- A. Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in the sequence required to obtain the best results, where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Each Contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work.
- C. Prepare a Work Plan for submittal to Omnitrans for any work requiring coordination with third parties or Railroad Operators and any work that might affect third parties or Railroad Operators' operations or facilities. Work Plan is considered a submittal that shall comply with all requirements of Section 01 33 00 Submittal Procedures.
- D. Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include but are not limited to the following:

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1. Preparation of Contractor's construction schedule.
 2. Preparation of Contractor's Schedule of Values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Pre-installation conferences
 7. Project closeout activities.
 8. Startup and adjustment of systems (commissioning).
- E. Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water and materials. Coordinate use of temporary utilities to minimize waste.
1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other sections of these Specifications for disposition of salvage materials that are designated to be owner's property.

1.3 PROJECT MEETINGS

- A. General: Omnitrans will schedule and conduct weekly meetings and conferences at the Work Site, unless otherwise indicated.
- B. Pre-Construction Conference: Omnitrans will schedule and conduct a pre-construction conference before starting construction, at a time convenient to all attendees.
1. Conference will review responsibilities and personnel assignments.
 2. Attendees: Authorized representatives of Omnitrans and their consultants; authorized representatives of Railroad Operators; the Contractor and its superintendent; major Subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect progress. Possible agenda items include:
 - a. Construction safety
 - b. Tentative construction schedule, Critical work sequencing and long-lead items.
 - c. Interface with ongoing OmniTrans operations
 - d. Emergency procedures and contact information.

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- e. Phasing.
 - f. Site access and the Contractor's on-site laydown, storage and staging areas.
 - g. Designation of key personnel and their duties.
 - h. Lines of communications.
 - i. Procedures for processing field directives and Change Orders.
 - j. Procedures for RFIs.
 - k. Procedures for testing and inspecting.
 - l. Procedures for processing Applications for Payment.
 - m. Distribution of the Contract Documents.
 - n. Submittal procedures.
 - o. Sustainable design requirements.
 - p. Preparation of record documents.
 - q. Use of the premises and existing buildings.
 - r. Work restrictions.
 - s. Working hours.
 - t. Owners' occupancy requirements.
 - u. Responsibility for temporary facilities and controls.
 - v. Procedures for moisture and mold control.
 - w. Procedures for disruptions and shutdowns.
 - x. Construction waste management and recycling.
 - y. Parking availability.
 - z. Office, work, and storage areas.
 - aa. Equipment deliveries and priorities.
 - bb. First aid.
 - cc. Security.
 - dd. Progress cleaning.
- C. Pre-installation Conferences: Conduct a pre-installation conference at the Work Site before each construction activity that requires coordination with other construction.
- 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Omnitrans of scheduled meeting dates.
 - 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, which may include the following:
 - a. Contract Documents.

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- b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.
 - i. Possible conflicts.
 - j. Compatibility requirements.
 - k. Time schedules.
 - l. Weather limitations.
 - m. Manufacturer's written recommendations.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Site Specific Work Plans
 - t. Availability of work crews
 - u. Availability of equipment
 - v. Availability of material
 - w. Contingency Plans
 - x. Regulations of authorities having jurisdiction.
 - y. Testing and inspecting requirements.
 - z. Installation procedures.
 - aa. Coordination with other work.
 - bb. Required performance results.
 - cc. Protection of adjacent work.
 - dd. Protection of construction and personnel.
 - ee. Construction Safety and Roadway Worker Protection.
3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
4. Reporting: Distribute minutes of the meeting to each party present, Omnitrans, and to other parties requiring information.
5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work, and reconvene the conference at earliest feasible date.
- D. Project Closeout Conference: Omnitrans will schedule and conduct a Project closeout conference, at a time convenient to all attendees.

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1. Attend the conference to review requirements and responsibilities related to Project closeout.
 2. Attendees: Authorized representatives of Omnitrans and their consultants; the Contractor and its project manager; major Subcontractors; Suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with the Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Preparation of record documents.
 - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - c. Submittal of written warranties.
 - d. Requirements for preparing operations and maintenance data.
 - e. Requirements for demonstration and training.
 - f. Preparation of the Contractor's punch list.
 - g. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
 - h. Submittal procedures.
 - i. Coordination of separate contracts.
 - j. Owners' partial occupancy requirements.
 - k. Installation of Owners' furniture, fixtures, and equipment.
 - l. Responsibility for removing temporary facilities and controls.
- E. Progress Meetings: Omnitrans will conduct progress meetings at regular weekly intervals.
1. Attendance by Contractor's Project Manager and Site Superintendent as well as key Subcontractors (when appropriate) is mandatory on a weekly basis.
 2. Attendees: In addition to representatives of Omnitrans, each Contractor, Subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with the Project and authorized to conclude matters relating to the Work.

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3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the status of the Project.
 - a. Safety
 - b. Progress and Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule in relation to the Contractor's construction schedule. Determine how construction that has fallen behind schedule will be remedied; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - c. Review the schedule for the next period.
 - d. Review present and future needs of each entity present, which may include the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Progress cleaning.
 - 10) Quality and work standards.
 - 11) Status of correction of deficient items.
 - 12) Field observations.
 - 13) Status of RFIs.
 - 14) Status of proposal requests.
 - 15) Pending changes.
 - 16) Status of Change Orders.
 - 17) Pending claims and disputes.
 - 18) Documentation of information for payment requests.

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PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 31 19
PROJECT MEETINGS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Requirement for mandatory attendance at project meetings.
2. Responsibilities and authority of each party.
3. Requirement and agenda for a Pre-Construction Meeting.
4. Requirement and agenda for an Initial Safety Meeting.
5. Requirements for Weekly Safety Meetings
6. Requirement and agenda for Job Progress Meetings.
7. Requirements for the Monthly Schedule Update Meeting.
8. Responsibility for minutes of Meetings.
9. Mandatory attendance at Other Meetings.
10. Mandatory attendance at Pre-Installation Conferences.

B. Related Sections:

1. Section 01 31 00 – Project Management and Coordination
2. Section 01 33 00 – Submittal Procedures

1.02 SUBMITTALS

- A. Submittals shall be in accordance with Section 01 33 00, Submittal Procedures.

1.03 GENERAL MEETING REQUIREMENTS

- A. Participate in all project meetings as specified herein, and attend with appropriate representatives of your own staff, Subcontractors, Suppliers, manufacturers, and fabricators as required.
- B. Come to meetings prepared to discuss the items you have been notified will be on the agenda and those specified below.

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1.04 PRE-CONSTRUCTION MEETING

- A. The Contractor will schedule a pre-construction meeting, and will notify all parties concerned of the exact time and place of the meeting.
 - 1. Attendance by the Contractor and his principal Subcontractors at this meeting is mandatory; but at his option the Contractor may also invite additional parties.
 - 2. The Contractor will invite the Agency's Public Relations Manager, Right-of-Way and Utilities Manager, and Design and Construction Manager
 - 3. The pre-construction meeting must take place prior to the start of any of the Work and within 21 Days of the Notice to Proceed.
 - 4. The meeting is typically held at the project site.
 - 5. The Contractor will conduct the pre-construction meeting, and will address the conduct of the job, lines of communications, and the like.
- B. The Meeting Agenda will include the following at a minimum, but is not limited to these items:
 - 1. Establishment of a sound working relationship among all parties, including the Contractor and Subcontractors, the Agency's Public Relations Manager, Right-of-Way and Utilities Manager, and Design and Construction Manager the Contractor's staff, representatives from affected utilities, and other appropriate agencies.
 - a. Designation of Contractor's responsible personnel.
 - b. Distribution and discussion of the list of Subcontractors.
 - 2. Distribution and discussion of the Contractor's Preliminary Schedule.
 - a. Discussion of critical Work sequencing.
 - b. Discussion of progress schedules.
 - 3. Distribution and discussion of the Contractor's Preliminary Schedule of Values.
 - a. Discussion of cost and resource loading of the Project Schedule to produce the Schedule of Values.
 - b. Discussion of Payment Requests using the Schedule of Values.
 - 4. Submittal and delivery schedules and procedures.

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- a. Submittal of Working Drawings, Shop Drawings, Project Data, and Samples.
 - b. Major equipment deliveries and priorities.
 - c. Materials furnished by the Agency.
 - d. Requirement to provide a Submittal Schedule.
 - e. Requirement to provide a Delivery Schedule.
5. Review of communities' concerns.
 6. Procedures for processing field decisions and Contract Change Orders.
 7. Requirements for maintaining record documents.
 8. Miscellaneous procedures such as safety, recordkeeping, first aid, security, housekeeping, etc.
 9. Location of office and storage areas.
 10. The Agency's use of premises requirements.
 11. Open discussion.
- C. The Contractor is responsible for addressing the following at this meeting:
1. Responsibilities and authorities of the Agency and the Contractor's organization, including the office of the Contractor.
 2. Equal Employment Opportunity (EEO) and affirmative action requirements.
 3. Requirements of labor provisions stipulated by the U.S. Department of Transportation (DOT).
 4. Laws, codes, traffic regulations, permit requirements, and other public agencies' regulations.
 5. Procedures for processing Requests for Information (RFIs), Change Requests, Change Orders, Shop Drawings, Working Drawings, Product Data, and Samples.
 6. Monthly pay estimate cut-off dates.
 7. Partial and final payments.
 8. Community Affairs functions and procedures.

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9. List of dates for generating data for the draft Project Schedule Monthly Update Reports.

D. The Contractor is responsible for doing the following at this meeting:

1. Ensuring that his Project Manager, General Superintendent, Quality Control Manager, Safety Representative, Traffic Control Supervisor, Equal Employment Opportunity (EEO) Officer, Subcontractor representatives, and Community Affairs representatives attend the meeting.
 - a. Introducing his representatives and briefly describe each person's responsibilities.
 - b. Distributing and discussing a list of major Subcontractors.
 - c. Discussing how the QC management group will perform independently to insure quality in the constructed facilities.
 - d. Identifying his public involvement person and discussing how he will work with the Agency's public relations manager representative.
 - e. Submitting the hourly labor wage rates and fringe benefit rates to be used to compensate labor employed to do the Work.
2. Discussing Construction Schedule status.
 - a. Submitting a preliminary Construction Schedule.
 - b. Submitting a preliminary Schedule of Values.
 - c. Describing construction sequencing of the entire Contract.
 - d. Discussing deliveries and priorities of major equipment
 - e. Discussing coordination and notification for utility Work.
 - f. Describing temporary lane/street closings and street restoration.
3. Describing general Work Site layout.
 - a. Discussing use of offices, storage areas, construction areas, and temporary easements.
 - b. Describing haul routes.
4. Discussing construction methods.

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5. Describing noise, air and water pollution control.
6. Describing erosion and sedimentation control measures.
7. Defining housekeeping procedures.

1.05 SCHEDULING MEETINGS

- A. Meet with the Agency within 10 Days after Contract Notice to Proceed and conduct initial review of the Preliminary Schedule of Values.
 1. Authorized representative in Contractor's organization designated in writing who will be responsible for working and coordinating with Agency's representative(s) relative to the preparation and maintenance of Progress schedule shall attend initial review meeting.
- B. Contractor shall within 60 days from Notice to Proceed date meet with the Agency to review the Contract Baseline Schedule submittal.
 1. Contractor shall have its Project Manager, General Superintendent, Scheduler, and key subcontractor representatives as required by the Agency, in attendance. The meeting will take place over a continuous one-day period.
 2. The Agency's review will be limited to submittal's conformance to Contract requirements, including but not limited to, coordination requirements. However the review may also include:
 - a. Clarification of Contract Requirements.
 - b. Directions to include activities and information missing from submittal.
 - c. Requests to Contractor to clarify its schedule.
 3. Within 5 days of the Schedule Review Meeting, Contractor shall respond in writing to all questions and comments expressed by the Agency at the Meeting.

1.06 SAFETY MEETINGS

- A. The Contractor will schedule an Initial Safety Meeting within 7 days after the pre-construction meeting.
 1. Attendance by the Contractor and his principal Subcontractors at this meeting is mandatory.
- B. The Agency is responsible for doing the following at the initial Safety Meeting:

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1. Discussing submittal of the Contractor's Safety Program, Surveillance and Security Control Program, and Site Security Plan, and introducing the Agency's construction safety and security representatives.
2. Giving the Construction "Hotline" telephone number to the Contractor, which will be answered by the Agency's public relations representative during regular working hours, or by an answering service during other times.
- C. The Contractor is responsible for defining arrangements for safety, first aid, emergency actions, security, and a full-time safety representative at the Initial Safety Meeting.
- D. The Contractor is also responsible for holding weekly safety meetings and tool box/lunch box meetings as required.

1.07 JOB PROGRESS MEETINGS

- A. Unless otherwise directed, the Contractor will hold weekly job progress meetings.
- B. The agenda for weekly job progress meetings will, at a minimum, include the following:
 1. Reviewing "minutes of meeting" of previous meeting(s).
 2. Noting field observations, problems, and decisions taken.
 3. Identifying present problems and planning resolution of each.
 4. Presenting log of outstanding nonconformance reports, planned corrective actions, subsequent operations impacted, and schedule for closure.
 5. Reviewing the status of the Contractor's Project Schedule and Work Plan.
 - a. Provide and present a time scaled three week look ahead schedule that is based on and correlated with the activity numbers and descriptive nomenclature of the accepted Project Schedule.
 - b. Provide a 7-day history documenting the achievements of the past 7 days.
 - 1) Include the as-built schedule for the previous 7-days within the look-ahead schedule.

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- c. Discuss the current and previous schedule and work plan and how they relate to actual achievements.
 - 1) Incorporate the Agency's comments into the as-built schedule for the previous 7-days.
 - 2) Expedite the Work to completion within the Project Schedule.
- d. Plan progress of the Work for the next work period and assess its effect on the related Work of others.
 - 1) Present the Contractor's look-ahead schedule of the work plan for the next 21 days.
 - 2) Pre-plan and discuss preparatory phase meetings.
 - a) Notify the Contractor at least 48 hours in advance of all preparatory phase meetings.
- 6. Reviewing safety status.
- 7. Reviewing status of other Contractors work in regards to shared access.
- 8. Coordinating occupancy arrangements and access requirements with the Contractor.
- 9. Reviewing the status of progress payment requests, change proposals and Change Orders, submittals, and requests for information.
- 10. Reviewing other outstanding issues.
- 11. Providing current as-built drawings to the Contractor for review.

1.08 MONTHLY SCHEDULE UPDATE MEETINGS

- A. Unless otherwise directed, the Contractor will hold Monthly Schedule Update Meetings to be attended by the Agency, the Contractor, and applicable Subcontractors.
- B. The draft Monthly Update Report will be reviewed at this meeting.
- C. At this meeting, the following items will be reviewed: Percent complete of each activity, Time impact evaluations for Change Orders and Time Extension Request; actual and anticipated sequence changes; actual and anticipated contractor delays. These meetings are considered a critical component of overall monthly schedule update submittal and Contractor shall have appropriate personnel attend. At a minimum these meetings shall be attended

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by Contractor's General Superintendent and Scheduler. Contractor should plan on meeting taking no less than four hours.

- D. After job progress status is established, submit the Project Schedule Monthly Update Report and the progressed Schedule of Values, which will be used as the Progress Payment Request.

1.09 PRE-INSTALLATION MEETINGS AND CONFERENCES

- A. Schedule and conduct pre-installation meetings with your employees, Subcontractors, Suppliers, manufacturers, fabricators, and other affected trades.
1. Schedule pre-installation meetings for each activity affecting proper sequencing of the Work.
 2. Hold pre-installation meetings for activities well in advance of submittal dates for related shop drawings, and according to early start dates for the activity established in the approved Contract Schedules required under Section 01 32 16, Construction Project Schedule (Small Projects), so the activity is not delayed.
 3. Conduct preparatory phase meetings as required by Section 01 44 00 as part of the Three-Phase Inspection and Testing Program.
 - a. Prepare all documentation and procedures in advance for presentation at the meeting; including, but not limited to, copies of drawings and Plans, Specifications, submittals, certifications, inspection and test procedures, and other pertinent documentation for use during the meeting.
 - b. Complete the Preparatory Phase Checklist and Quality Control Inspection Checklist/Procedure forms as appended to Section 01 44 00, for each preparatory phase meeting.
- B. The Contractor may also require that pre-installation conferences be held with the Contractor and the Subcontractor(s) on selective items of Work.

1.10 OTHER MEETINGS

- A. In addition to the regularly scheduled meetings, ad-hoc meetings may be called to address significant matters or situations that have a bearing on the successful prosecution of the Work. On an as needed basis, meetings may be called to discuss issues with representatives of local jurisdictions, public involvement and communications representatives or other agencies involved with the Project.

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1.11 MINUTES OF MEETINGS

- A. The Contractor is responsible to take minutes of all meetings and distribute them to all parties present and to those on the agreed upon distribution list within 5 Days of the meeting.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

- A. No separate measurement will be made for the Work of this Section.

4.02 PAYMENT

- A. No separate payment will be made for the Work of this Section because its cost is incidental to other payment items.

END OF SECTION

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SECTION 01 31 99
CONTRACT TIME

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for a two-step Notice-to-Proceed process, and defines allowable conditions for Contract Time extensions.

1.2 RELATED REQUIREMENTS

- A. Special Conditions, Section 1.4 - Commencement of the Work.
- B. Section 01 29 73 - Schedule of Values.
- C. Section 01 33 00 - Submittal Procedures.

1.3 DEFINITIONS

- A. Notice to Proceed (NTP): Omnitrans written authorization to proceed with all or portions of the Work, as specified.
- B. Contract Time: As defined in the Contract, the Contract Time is the original duration of the Contract in working days, subject to approved Change Order(s) adjusting Contract Time. Contract Time is measured in working days. Contract Time begins on the effective date of NTP and ends on the certified date of Substantial Completion. Special Conditions to Contract stipulate the number of days for Contract Time.

1.4 COMMENCEMENT OF WORK

- A. Omnitrans will issue a Notice to Proceed (NTP). NTP issuance constitutes formal notice for the Contractor to proceed with remainder of Work and to diligently prosecute completion within Contract Time. The Contractor is not authorized to perform any work until the Contractor has received the NTP. Should the Contractor begin work in advance of receiving the NTP, such work shall have been done at the Contractor's own risk. The NTP will initiate Contract Time and will constitute specified tasks and deliverables required in the Contract Documents.

1.5 CONTRACT TIME

- A. The date of the NTP is the commencement date for Contract Time.
- B. The Contract Time is 130 Working Days after the NTP.

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1.6 DELAYS AND TIME EXTENSIONS

- A. Delays beyond the Contractor's control: The Contractor will be granted a time extension and will not be assessed with liquidated damages for any delay in substantially completing the Work (or parts thereof) beyond the time set forth in the Contract, provided that such delay was caused by unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include acts of a public enemy, fire, floods, adverse weather, tidal waves, earthquakes, hurricanes, epidemics, quarantine restrictions, strikes, labor disputes and freight embargoes, or negligent acts of Omnitrans.
- B. Omnitrans caused delays: In the event the Contractor is delayed by any act or omission on the part of Omnitrans (as determined by Omnitrans), and provided that the Contractor notifies Omnitrans in writing within 5 days from the beginning of any such delay, specifying the act or omission causing such delay, the time for completion of the Work may be extended at the sole discretion of Omnitrans. Any time extension is contingent on all of the following:
1. That the cause is not due to the fault or negligence of the Contractor and the Contractor has taken reasonable precautions to prevent the delays and minimize the effects thereof.
 2. That the Contractor submits a Request for Change (RFC) specifying the nature of the delay and the measures that have been or will be taken to prevent or minimize the delay. Failure to submit written notice within 5 days from the beginning of any such delay shall constitute an absolute waiver of any claim for a time extension. The RFC submitted by the Contractor shall also include a Time Impact Analysis.

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3. No time extension shall be granted under this Section for any Omnitrans caused delay in which (1) the performance of Work would have been concurrently delayed by the Contractor induced causes, including an act or omission of the Contractor or its Subcontractors, or (2) remedies are included or excluded by any other provision of the Contract. Only the actual delay resulting from the causes specified in this Section shall be grounds for a time extension. No time extension shall be granted for a delay caused by a shortage of materials unless the Contractor furnishes to Omnitrans (a) documentary proof that the Contractor has diligently made every effort to obtain such materials from all known sources, and (b) schedule changes as required under Section 01 32 16, Construction Project Schedule, that the construction schedule critical path was impacted, and could not be mitigated by re-sequencing the Contractor's operations.
 4. The term "shortage of materials," as used in this Section, shall apply only to materials, articles, parts, or equipment that are not custom items; it shall not apply to equipment, materials, parts, or articles that are processed, made, constructed, fabricated, or manufactured to meet the specific requirements of the Contract Documents.
- C. Time Extensions for Critical Path activities only: When time extensions are granted, they shall be limited to the period equivalent to the actual number of days lost on Critical Path activities. All requests for time extensions shall be supported with a Time Impact Analysis (TIA) showing the Critical Path and impacts on it. The Contractor's failure to submit this analysis will be sufficient cause for denial of any request for a time extension.
- D. A time extension granted shall not release the Contractor's surety from its obligations. Work shall continue and be carried on in accordance with all provisions of the Contract. The Contract shall remain in full force and effect during the continuance and until completion and acceptance of the Work covered by the Contract, unless formally suspended or terminated in accordance with the terms of the Contract. Permitting the Contractor to finish the Work, or any part thereof, after the time fixed for completion (or after the date to which the time for completion may have been extended), and/or making payments to the Contractor after any such periods, shall not constitute a waiver on the part of Omnitrans of any rights under the Contract.

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- E. Neither the granting of a time extension beyond the date fixed for the completion of any part of the Work nor the performance and acceptance of any part of the Work after the time specified for the completion of the Work shall be deemed to be a waiver by Omnitrans of Omnitrans' right to terminate the Contract for abandonment or failure to complete within the time specified, or to impose and deduct damages as may be specified.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 32 16
CONSTRUCTION PROJECT SCHEDULE (SMALL PROJECTS)

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes requirements for preparing, submitting, revising, and updating project scheduling information. The purpose of this section is to ensure adequate planning and execution of the Work by the Contractor, and establish a standard against which satisfactory completion of the Project can be measured by Omnitrans, providing justification for progress payments.

1.2 RELATED REQUIREMENTS

- A. Section 01 29 73 - Schedule of Values.
- B. Section 01 31 99 - Contract Time.

1.3 GENERAL

- A. The scheduling and execution of the Work in accordance with the Contract Documents are the responsibility of the Contractor. Schedules shall represent a practical plan to complete the Work within the Contract Time and shall convey the Contractor's intent in the manner of prosecution and progress of the Work. The submittal of schedules shall be understood to be the Contractor's representation that the schedule meets the requirements of the Contract Documents and that the Work will be executed in the sequence and duration indicated in the schedule.
- B. Schedules shall be consistent with the time and work requirements of the Contract. Contractor shall execute the Work in the sequence indicated on the current approved schedule.
- C. Contractor shall involve and coordinate with all Subcontractors, third parties, and material suppliers in the development and updating of schedules.
- D. Review or acceptance of schedules by Omnitrans shall not waive any contract requirements and shall not relieve the Contractor of any obligation or responsibility for submitting complete and accurate information.
- E. If after a schedule has been accepted or approved by Omnitrans, either the Contractor or Omnitrans discovers that any aspect of the schedule has an error or omission, Contractor shall correct it on the next Progress Schedule.

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- F. Errors or omissions on schedules shall not relieve the Contractor from finishing all work within the Contract Time.
- G. Contractor shall adjust, add to, or clarify any portion of a schedule which Omnitrans determines to be insufficient for monitoring the Work or to be impractical for any reason.
- H. Use of float suppression techniques such as preferential sequencing or logic, special lead/lag logic restraints and extended activity durations will be cause for rejection of schedule submittal.

1.4 DEFINITIONS

- A. Activity: A task, event or other project element on a schedule that contributes to completing the project. Activities have a description, start date, finish date, duration and one or more logic ties.
- B. Actual Dates: The actual start or finish date of an activity which occurs prior to the data date. Dates occurring after the data date are forecasted dates and are not actual dates.
- C. Bar Chart (Gantt Chart): A graphic display of schedule-related information in which activities or other project elements are listed down the left side of the chart, dates are shown across the top, and activity durations are shown as date-placed horizontal bars.
- D. Baseline Schedule: The initial schedule representing the Contractor's work plan on the first working day of the project as approved by Omnitrans.
- E. Contract Completion Date: Contracted original completion date defined by the duration of the project.
- F. Controlling Operation: The activity, within that series of activities defined as the applicable critical path, which if delayed or prolonged will delay the scheduled completion date of the Work.
- G. Critical Path: The longest continuous chain of activities for the project that has the least amount of total float of all chains. In general, a delay on the critical path will extend the scheduled completion date.
- H. Critical Path Method (CPM): A network based planning technique using activity durations and the relationships between activities to mathematically calculate a schedule for the entire project.
- I. Data Date: The day after the date through which a schedule is current. Everything occurring earlier than the data date is "as-built" and everything on or after the data date is "planned."
- J. Early Completion Date: A scheduled completion date which is earlier than the contract completion date.

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- K. Free Float: The amount of time an activity can be delayed before affecting a subsequent activity.
- L. Hammock Activity: An activity added to the network to span an existing group of activities for summarizing purposes.
- M. Milestone: A marker in a network which is typically used to mark a point in time or denote the beginning or end of a sequence of activities. A milestone has zero duration, but will otherwise function in the network as if it were an activity.
- N. Narrative Report: A document submitted with each schedule that discusses topics related to project progress and scheduling.
- O. Near Critical Path: A chain of activities with total float exceeding that of the critical path but having no more than 10 working days of total float.
- P. Open Ended Activity: An activity without at least one predecessor and one successor.
- Q. Out of Sequence Activities: Any activity which actually starts in a sequence other than shown in the current approved schedule.
- R. Progress Schedule: A current schedule developed from the baseline or subsequent schedule through regular monthly review to incorporate as-built progress and any planned changes.
- S. Revision: A change in the schedule that modifies logic, adds or deletes activities, or alters activities, sequences, or durations.
- T. Scheduled Completion Date: The planned date of completion of the Work shown on the current approved schedule.
- U. Time Impact Analysis: A schedule and narrative report developed specifically to demonstrate what effect a proposed change or delay has on the current scheduled completion date.
- V. Total Float: The amount of time that an activity or chain of activities can be delayed before extending the scheduled completion date.

1.5 SUBMITTALS

- A. Baseline Schedule: Submit Baseline Schedule to Omnitrans within 21 calendar days following the date of the Limited Notice to Proceed.
- B. Progress Schedule: Progress Schedule is due the first working day of each month and as part of progress payment application submittal.
- C. Final Progress Schedule: Submit within 14 calendar days following Final Completion.
- D. Subcontractor Documentation:

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1. Submit with the Baseline Schedule all Subcontractor schedules utilized in the development of the Baseline Schedule.
 2. Submit with the Baseline Schedule, a statement on Subcontractor's letterhead, certifying that Subcontractor has reviewed and concurs with the Baseline Schedule and that Subcontractor's related schedule has been reasonably incorporated, including activity duration.
- E. Scheduler Qualifications: At Pre-Construction Conference, submit for Omnitrans' acceptance a resume of the individual proposed to perform scheduling. If the accepted individual leaves the Project or is assigned duties which no longer permit the individual to perform scheduling, notify Omnitrans and submit for acceptance the resume of the proposed replacement. Proposed individual must have a minimum of two years of verifiable scheduling experience on similar projects.
- F. Submit for Omnitrans' use software and corresponding licenses for either 1) Primavera Project Planner for Windows (must be readable by P3, version 3.0 or latest release), 2) Primavera P6 Professional Project Management (latest release), or 3) Microsoft Project, that the Contractor will use to create scheduling plans for this project.

1.6 DELIVERABLES

- A. Three Week Look Ahead Schedule: Submit first Three-Week Look Ahead Schedule at Pre-Construction Conference. Submit weekly thereafter at Construction Progress Meetings until Final Completion. Submit at least six (6) hard copies.

1.7 SUBMITTAL DETAILS

- A. Each submittal of Baseline and Progress Schedules shall include the elements listed herein.
- B. Electronic Data: Compact discs containing schedule, schedule data, and narrative. Submit two (2) sets of compact discs. Schedule data shall be saved in P6 (.xer) format, P3 (.prx), SureTrak (.stx), or Microsoft Project (.mpp) backup format and shall contain all files of the schedule that can be restored by Omnitrans for its evaluation and analysis.

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1. Tabular Reports: Electronic data submitted shall be sufficient to enable Omnitrans to generate the following tabular reports: Report sorted by activity number, report sorted by early start, and report sorted by total float. Data shall include the following items for each activity: activity number, description of what is to be accomplished and where, codes, duration, milestones, predecessor and successor logic, early start, early finish, late start, late finish, total float and free float.
- C. Gantt Activity Bar Charts: Show activities grouped by work areas and sorted by early start. Submit at least six (6) hard copies, 11 by 17 inch, and at least two (2) color E-size plots, 34 inch by 44 inch.
- D. Narrative Reports: Submit at least six (6) hard copies.

1.8 BASELINE SCHEDULE

- A. Baseline Schedule shall utilize computerized Critical Path Method (CPM) network scheduling.
- B. Software: Utilize latest version of Primavera P6 Professional Project Management ("P6") or Microsoft Project.
- C. Approval by Omnitrans of the Baseline Schedule is a prerequisite for the Notice to Proceed (NTP).
- D. Baseline Schedule shall show the order in which the Contractor proposes to carry out the work with logical links between work activities. Ensure that activity sequences are logical and that schedule shows a coordinated plan for complete performance of the work.
- E. Baseline Schedule shall include the entire scope of work through the end of Contract Time. Show how the Contractor plans to complete the Work. Show the activities that define the critical path. Show float on other activities. Keep multiple critical paths and near-critical paths to a minimum.
- F. The data date for the Baseline Schedule shall be the date of Notice to Proceed (NTP). Baseline Schedule shall not attribute negative float or negative lag to any activity.
- G. Baseline Schedule shall define non-working days as the following holidays: New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day after Thanksgiving Day and Christmas Day.

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- H. Float: Float shall not be considered as time for the exclusive use of or benefit of either Omnitrans or the Contractor, but shall be considered as a jointly owned, expiring resource available to the project and shall not be used to the financial detriment of either party. Use of float suppression techniques such as preferential sequencing, special lead/lag logic restraints, extended activity durations or imposed constraints will be cause for rejection of the Baseline Schedule and subsequent Progress Schedules. The Contractor shall not create artificial activities that eliminate any or all float in the project schedule.
- I. Calendar: Utilize multiple schedule calendars to identify and differentiate between day and night shift work and any weekend activity work.
- J. Autocost rules: Autocost rules shall link the remaining duration and the schedule percent complete. Other automatic cost/resource calculation rules shall be in a format acceptable to Omnitrans.
- K. Retained Logic: When schedule calculations are performed, the "Retained Logic" setting shall be used.
- L. Early Completion: The Contractor may submit a Baseline or Progress Schedule showing an early scheduled completion date provided that the requirements of the Contract are met.
1. The difference between the early completion date and the contract completion date is considered float. Float time shall not be for the exclusive benefit of either Omnitrans or the Contractor. Float shall be a resource available to both parties.
 2. Omnitrans is not required to accept or approve a schedule with an early completion date.
 3. Contractor shall not be entitled to extra compensation in the event an agreement is reached on an early completion date and Contractor completes the Work, regardless of the reason, beyond the early completion date but within the Contract Time.
 4. Changes to Contract Time or contract completion date shall be by Contract Change Order.
- M. Baseline Narrative Report: Submit a narrative report with the Baseline Schedule describing the schedule development process, activity coding structure, basis of proposed durations, work sequence, approach or methods the Contractor intends to employ in the Work, areas of concerns, if any and explanation of early scheduled completion date, if proposed.

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1.9 BASELINE SCHEDULE ACTIVITIES

- A. Activity Coding: Contractor shall develop its own activity coding structure. Activities shall be coded to a level sufficient to allow for multiple sorting.
- B. General Activity Requirements: Baseline schedules shall include activities to show the following, as applicable:
 - 1. Project characteristics, salient features, or interfaces, including those with outside entities that could affect time of completion.
 - 2. Project start date, scheduled completion date and other milestones.
 - 3. Work performed by the Contractor, Subcontractors, Suppliers and Third Parties.
 - 4. Submittal development, delivery, review and approval, including those from the Contractor, Subcontractors, third parties, and suppliers which impact the critical path.
 - 5. Procurement, delivery, installation, and testing of materials, plants, and equipment.
 - 6. Required delivery of Omnitrans furnished materials and periods of use of Omnitrans -furnished equipment.
 - 7. Acquisition of permits.
 - 8. Utility notification and relocation noted to be performed by others.
 - 9. Erection and removal of falsework and shoring.
 - 10. Major traffic routing switches.
 - 11. Final cleanup.
 - 12. Work performed by other Contractors and entities.
 - 13. Demobilization, punch list and project closeout activities.
- C. The number of activities shall be sufficient to assure adequate planning of the project, to permit monitoring and evaluation of progress, and to do an analysis of time impacts.
- D. Each schedule activity shall include the following:
 - 1. A clear, legible and unique description, including the location of work.
 - 2. Start and finish dates.

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3. Duration not less than one full day, except for milestone activities, and not more than 10 working days, with the exception of submittals, fabrication, procurement, and summary activities, unless otherwise approved by Omnitrans.
4. At least one predecessor and one successor activity, except for project start and finish milestones.
5. Contractually required constraints. Use of any other types of constraints is not allowed without prior approval by Omnitrans.
6. Activity codes for responsibility, phase, area, stage, work shifts, and contract bid item numbers as applicable. Code for responsibility shall denote the entity performing the activity, i.e. Omnitrans, Contractor, Subcontractor, or utility.

1.10 PROGRESS SCHEDULE

- A. Progress Schedule shall consist of an updated schedule based on the Baseline Schedule.
- B. Release of Progress payments will be dependent on receipt of an acceptable Progress Schedule.
- C. Include the following information in the Progress Schedule: Status of work actually completed to date and the work yet to be performed as planned; actual activity start dates, and finish dates, as applicable; and durations for work that has been completed as the work actually occurred, including Omnitrans submittal review and Contractor resubmittal times. Show approved time adjustments and project completion dates. Show approved Contract Change Order work. Show weather delay days which have already occurred and have been acknowledged by Omnitrans in writing.
- D. Modifications shown in Progress Schedule: The Contractor may include modifications such as adding or deleting activities or changing activity constraints, durations or logic that do not (1) alter the critical path(s) or near critical path(s) or (2) extend the scheduled completion date compared to that shown on the current accepted schedule. The Contractor shall state in writing the reasons for any changes to planned work. If any proposed changes in planned work will result in (1) or (2) above, then the Contractor shall submit a time impact analysis as described herein.
- E. Change logic relationships of out-of-sequence activities to reflect actual work sequence.
- F. Progress Narrative Report: Submit Narrative Report containing detailed comprehensive descriptions of the following information with every Progress Schedule submittal:

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1. Description of work completed during the reporting period, including progress made on activities on the current critical path.
 2. Explanation for not working on critical path activities during the reporting period.
 3. Description of the current critical path(s).
 4. Explanation of changes to the critical path(s), including changes to logic or activity durations, and scheduled completion date since the last schedule submittal. Include explanation of work activities performed out of sequence from the approved schedule.
 5. Status of major activities on the current critical path, including percent complete, and amount of time ahead or behind schedule. Provide description and explanation of any delays encountered during the reporting period, including impacts on other activities, milestones, and completion dates.
 6. Description of proposed corrective actions and schedule adjustments to mitigate delays and bring the project back on schedule.
 7. Status of permits, change orders, submittals, potential claims, time adjustments, material and equipment procurement, non-conformance reports, and any other pending items on the current critical path.
 8. Description of activities on the critical path to be performed in the next update period.
 9. Any other information pertinent to the status of the project as determined by the Contractor or requested by Omnitrans.
- G. Final Progress Schedule: Prepare and submit an updated, as-built Progress Schedule with actual start and finish dates for all activities and documented changes from the Preliminary Progress Schedule. Include a narrative report.
1. Contractor shall provide a written certificate with this submittal signed by the Contractor's project representative and an officer of the company stating, "To my knowledge and belief, the enclosed final update schedule reflects the actual start and finish dates of the actual activities for the project contained herein. An officer of the company may delegate in writing Omnitrans to sign the certificate to a responsible manager.

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1.11 THREE-WEEK LOOK AHEAD SCHEDULE

- A. Three-Week Look Ahead Schedule shall contain one week of historical information and three weeks of planned activities in support of and consistent with the Baseline Schedule or current Progress Schedule.
- B. Format: An electronic spreadsheet or other format acceptable to Omnitrans. Label each activity to match the Activity ID number on the current Progress Schedule. Highlight the critical path. Data date shall be within current week.
- C. Level of Detail: Greater than in the Baseline Schedule or Progress Schedule, if necessary to fully describe the ongoing and/or upcoming work.
- D. Clearly show each activity requiring track access during specified work windows; schedule activities performed during single or multiple track outage work windows utilizing an hourly time scale.
- E. Show weather delay days which have already occurred and have been acknowledged by Omnitrans in writing.
- F. When appropriate, show demobilization and punch list activities through to Final Completion.

1.12 REVIEW AND RESUBMITTALS

- A. Omnitrans will review and return the Contractor's schedule submittals and deliverables with a written response according to the following schedule from the date of receipt from the Contractor.
 - 1. Baseline Schedule: Within 15 working days.
 - 2. Progress Schedule: Within 10 working days.
- B. Omnitrans will review and return resubmittals to the Contractor with a written response according to the following schedule from the date of receipt from the Contractor.
 - 1. Baseline Schedule: Within 7 working days.
 - 2. Progress Schedule: Within 5 working days.
- C. If the Contractor does not agree with Omnitrans' comments, provide written notice of disagreement within 5 working days from the receipt of Omnitrans' comments. Resolve any Omnitrans comments with which the Contractor disagrees in a meeting held for that purpose.

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- D. The first of each type of submittal and deliverable submitted by the Contractor will be reviewed for format, as well as content. Omnitrans may require format changes. Once the format has been approved, submit subsequent submittals and deliverables in the approved format.
- E. Baseline Schedule Review Meeting: Within 10 working days after the submittal of the Baseline Schedule, Omnitrans will conduct a Baseline Schedule Review Meeting with the Contractor.
 - 1. Contractor shall have its Project Manager, construction management personnel, individual performing scheduling and major Subcontractor representatives, in attendance.
 - 2. Meeting topics will include the following:
 - a. Contractor's presentation of Baseline Schedule submittal including explanation of critical path, critical path activities, resources and production rates of work activities, and other items related to scheduling of work.
 - b. General review and discussion of schedule format, activities and information potentially missing from the schedule.
- F. Recovery Schedule: If Contractor's actual progress of the Work falls ten (10) working days behind the approved Baseline Schedule for the Contract completion date, the Contractor shall prepare and submit a Recovery Schedule within five (5) working days to explain and display how the Contractor intends to regain compliance with the Contract completion date. The Recovery Schedule shall detail the Contractor's plan for bringing the work back on schedule. The Contractor's plan for recovery shall conform to all other Contract requirements. Incorporate revisions accepted by Omnitrans in the next Progress Schedule. Do not incorporate proposed revisions in the Progress Schedule prior to Omnitrans' acceptance.

1.13 TIME IMPACT ANALYSIS

- A. If the Contractor requests an extension of time for the completion of an interim milestone date or Contract completion date, justification in the form of a Time Impact Analysis (TIA) for such extension shall be furnished. Omnitrans will determine whether or not the Contractor is entitled to an extension of time under the provisions of the Contract. Submission of a TIA based on revised activity logic and durations is required for approval of any time extension. The cost of preparing time impact analyses or subsequent schedule revisions shall be borne solely by the Contractor.

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- B. Illustrate the impacts of each change or delay on the current Contract completion date or interim milestone, as appropriate. Use the approved Progress Schedule which has a data date closest to and prior to the event for which an extension is being requested.
- C. Include a schedule showing all schedule logic revisions, duration changes, and additions or deletions of activities for the work in question and its relationship to other activities on the Progress Schedule. Provide additional supporting evidence if requested by Omnitrans.
- D. Omnitrans' determination as to the total number of days of time extension will be based upon the current schedule for the time period in question, and all other relevant information. Actual delays in activities which, according to the Progress Schedule, do not affect the critical path or the Contract completion date will not be the basis for a time extension.
- E. Omnitrans will review the facts and advise the Contractor in writing of Omnitrans' decision. If Omnitrans determines that the Contractor is entitled to an extension of time to an interim milestone, the Contract completion date will remain the same, unless Omnitrans specifies another date. Any change to Contract milestones or to the Contract completion date will be made by Change Order.
- F. If Omnitrans has not yet made a full determination as to the amount of time extension to be granted and the parties are unable to agree as to the amount of extension to be reflected in the Progress Schedule, reflect that amount of time extension in the Progress Schedule as determined to be appropriate by Omnitrans for such interim purpose. It is understood and agreed that such interim determination by the for the purposes of this article will not be binding upon either party for any other purpose, and that, after Omnitrans has made a final determination as to any time extension, revise the Progress Schedule in accordance with the final decision.

1.14 INCLEMENT WEATHER CONDITION

- A. Contractor shall allow for inclement weather in the Baseline Schedule by incorporating an activity titled "Rain Day Impact Allowance" as the last activity prior to the Substantial Completion Milestone. No other activities may be concurrent with it. The duration of Rain Delay Impact Allowance activity will be based on Section 01 31 99 – Contract Time.

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PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 33 00
SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes requirements for the submittal schedule and procedural requirements for submitting Shop Drawings, Product Data, Samples, administrative and miscellaneous (non-administrative) work-related submittals.

1.2 RELATED REQUIREMENTS

- A. Section 00 26 00 - Substitution Procedures.
- B. Section 01 60 00 - Product Requirements.
- C. Section 01 77 19 - Project Closeout.
- D. Section 01 78 39 - Project Record Documents.
- E. Section 01 79 00 - Demonstration and Training.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require responsive action from appropriate reviewers. Action submittals are those submittals indicated in individual Specification Sections as action submittals.
- B. Informational Submittals: Written and graphic information and physical samples that do not require a response. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals so described in individual Specification Sections.
- C. Work Plans: Include narrative descriptions, diagrams, equipment, procedures for excavation, demolition, site clearing, maintenance of traffic, etc.
- D. Certificates: Include certified Material test reports, certification of proper disposal of demolition Materials, or tickets demonstrating compliance with Materials, tests or Specifications indicated.
- E. Equipment: Include equipment Specifications, manufacturer information and demonstration of suitability of equipment for intended use.
- F. Product Data: Include standard printed information on Materials, products and systems to be furnished by the Contractor for this Contract.

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- G. Shop Drawings: Include detailed manufacturing and layout information, demonstrating the Contractor's approach to meeting the intent of the Plans and Specifications.
- H. Samples: Include physical examples of Materials either for limited visual inspection or (where indicated) for confirmation, testing, and analysis by Omnitrans.
- I. Miscellaneous Submittals: Such submittals shall be related directly to the Work, but not necessarily administrative related. Include Work schedule, phasing plans, warranties, guarantees, maintenance agreements, workmanship bonds, survey data and reports, physical work records, quality testing and certifying reports, copies of industry standards, Record Plans, field measurement data, operating and maintenance Materials, overrun stock (and similar information) and, devices and Materials applicable to the Work but not processed as Shop Drawings, Product Data or samples.

1.4 PATENTS

- A. In the event that any patented article, material, or process is to be installed or used in the performance of the Work as shown on the plans or particular specifications thereof, the Contractor shall pay the royalty chargeable and shall save, keep, and bear Omnitrans and Omnitrans' Representatives harmless from (a) all damage, costs, and expenses by reason of any infringement of the patent or any failure to pay the royalty chargeable for use thereof, or (b) any loss to Omnitrans in the event that Omnitrans is enjoined from using such patented article or material, or (c) the incidental damage caused by the loss of use and damage to Omnitrans property in removing same, and (d) the cost of replacing the article or material the use of which is enjoined. It is further provided that the Bond for faithful performance shall be deemed to expressly apply to this provision of the specifications.

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1.5 CONTRACTOR-PREPARED PLANS, PRODUCT DATA, AND SAMPLES

- A. The Contract Documents shall be supplemented by Shop Drawings, working plans, equipment layout plans, coordination plans, lift plans, product data, samples, and similar submittals prepared by the Contractor or its Subcontractors or Suppliers, of any tier. These materials and similar submittals shall be furnished as required for coordination of the Contractor's work, as required for the coordination of the work with forces of Omnitrans or other Contractors working for Omnitrans, as required by the various Sections of the Specifications, or as requested by Omnitrans. The purpose of the submittal is to demonstrate for those portions of Work for which submittals are required the manner in which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents.
- B. When Shop Drawings, Working Plans, Equipment Layout Plans, Coordination Plans, Lift Plans, product data, samples or similar submittals are required by any Section of the Specifications or have been requested by Omnitrans, the Contractor shall coordinate all Work under the various sections of the Specifications to ensure that no interferences occur in the areas, structures, or rooms for which such plans have been required, and that necessary clearances are provided.

1.6 SUBMITTAL SCHEDULE

- A. Submit a schedule of submittals, arranged in chronological order by dates required by the construction schedule. When establishing dates, include the time required for review, ordering, manufacturing, fabrication, and delivery. Include additional time required for making submittal corrections or modifications noted by Omnitrans or Omnitrans' Representatives, and additional time for handling and reviewing submittals required by those corrections.
1. Coordinate the submittal schedule with the list of subcontracts, the Schedule of Values, and the Contractor's construction schedule.
 2. Submit Initial Submittal Schedule 15 days after issuance of Limited Notice to Proceed. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work, and those required early because of long lead time for manufacture or fabrication. Indicate if a submittal is on the critical path for project completion.
 3. Final Submittal: Submit concurrently with the first complete submittal of the Contractor's construction schedule. Submit a revised submittal schedule to reflect changes in the current status and timing for submittals.

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4. Format: Arrange the following information in a tabular format:
- a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal category (action or informational).
 - d. Name of Subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for reviewer's response.
 - g. Scheduled dates for purchasing.
 - h. Scheduled dates for delivery and installation.
 - i. Activity or event number.
 - j. Float.

1.7 PROCESSING REQUIREMENTS FOR SUBMITTALS

- A. Coordination: Coordinate preparation and processing of submittals with the performance of construction activities. Transmit each submittal sufficiently in advance of related construction activities to avoid delay.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on an approved submittal schedule.
 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate the transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of the need to review submittals concurrently for coordination.
 5. The Contractor shall show his executed internal review and approval marking. Submittals, which are received from sources other than through the Contractor's office or which have not undergone Contractor review, will be returned marked "without action."
 6. Omnitrans reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

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- B. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on the first full working day after Omnitrans receives the submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow 14 working days for initial review of each submittal. In the event that Submittal is reviewed by a third-party (including Railroad Operators and authorities having jurisdiction), allow up to an additional 14 working days time for Omnitrans' response. Omnitrans' response to Submittal may include a request for additional information in which case Omnitrans' time for response will date from time of receipt of additional information.
 2. Concurrent Consultant Review: Where concurrent review of submittals is required, allow 21 working days for initial review of each submittal.
- C. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Omnitrans will return, without review, any submittals received from sources other than the Contractor.
1. Transmittal Form: Provide locations on the form for the following information:
 - a. Project name.
 - b. Date.
 - c. Destination (To:).
 - d. Source (From:).
 - e. Names of Subcontractor, manufacturer, and supplier.
 - f. Category and type of submittal.
 - g. Submittal purpose and description.
 - h. Specification Section number and title.
 - i. Indication of full or partial submittal.
 - j. Plan number and detail references, as appropriate.
 - k. Transmittal number, numbered consecutively.
 - l. Submittal and transmittal distribution record.

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- m. Remarks.
- n. Signature of transmitter.
- D. Identify applicable standards, ASTM, ACI, OSHA, etc. and identify options requiring selection by reviewer.
- E. Deviations: Identify deviations from the Contract Documents on submittals.
- F. Resubmittals: Make resubmittals in the same form and with the same number of copies as the initial submittal.
 - 1. Note the date and content of the previous submittal.
 - 2. Note the date and content of the revision in the label or title block, and clearly indicate the extent of revision.
 - 3. Resubmit submittals until they are stamped with action by reviewer.
- G. Distribution: Furnish copies of final submittals to manufacturers, Subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on the transmittal forms.
- H. Use for Construction: Retain full copies of approved submittals on the Work Site. Use only final submittals that are marked with approval notation from the reviewer's action stamp.

1.8 CONFORMANCE OF SUBMITTALS

- A. The Contractor is responsible for conformance of all submittals prepared by the Contractor or its Subcontractors or suppliers, of any tier, with all requirements of the Contract Documents. Where required by California law, or as specified in the Contract Documents, submittals shall be signed and sealed by a Professional Engineer licensed in the State of California, or Land Surveyor licensed in the State of California as applicable.
- B. Contractor shall show his executed internal review and approval marking. Submittals, which are received from sources other than through the Contractor's office or which have not undergone Contractor review, will be returned marked "without action."

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- C. Acceptance of Shop Drawings, Working Plans, Equipment Layout Plans, Coordination Plans, Lift Plans, product data, samples, and similar submittals shall not relieve the Contractor from responsibility for deviations from the Contract Documents, nor from responsibility for errors or omissions of any sort with such plans and data. Neither shall the acceptance of such plans and data by Omnitrans or Omnitrans' Representative relieve the Contractor from responsibility for the correct installation, or for the proper operation in service, of items requiring submittal of such plans and data.

PART 2 - PRODUCTS

2.1 SUBMITTAL PERFORMANCE REQUIREMENTS

- A. Any Work performed without an approved submittal will be done at the Contractor's own risk. The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by Omnitrans' review of Shop Drawings, Product Data, Samples, or similar submittals unless the Contractor has specifically informed Omnitrans in writing of such deviation at the time of the submittal and given written acceptance to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals by Omnitrans' review thereof.

2.2 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. The required types of submittals are indicated in individual Specification Sections.
1. Submit electronic submittals via e-mail as PDF electronic files. Omnitrans will return the annotated file. Annotate and retain one copy of file as an electronic Project record document file. Full-size plans must be submitted in hard-copy form.
 2. Action Submittals: Submit six paper copies of each submittal, unless otherwise indicated. Omnitrans will return one copy.
 3. Make copies of the returned copy as required for distribution and for operations and maintenance manuals. Mark up and retain one returned copy as a Project Record Document.
 4. Informational Submittals: Submit six paper copies of each submittal, unless otherwise indicated. Omnitrans will not return copies.

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5. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 01 77 19 - Project Closeout.
 6. Certificates and Certifications Submittals: Provide a statement that includes the signature of the entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity who is an Engineer or Architect recognized to practice engineering or architecture in the State of California.
 7. Provide a notarized statement on original paper copy certificates and certifications where indicated.
 8. Test and Inspection Reports Submittals: Comply with requirements specified in Section 01 40 00 - Quality Requirements.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment. A Material Safety Data Sheet shall be submitted for each product.
1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 - i. Manufacturer's written recommendations.
 - j. Manufacturer's installation instructions.
 - k. Mill reports.
 - l. Standard product operation and maintenance manuals.

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- m. Approval number of organizations or agencies as required by agencies having jurisdiction.
- n. Notation of dimensions verified by field measurements.
- o. Notation of coordination requirements.
- 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
- 5. Submit Product Data before or concurrent with Samples.
- 6. Submit Product Data in the following format:
 - a. PDF electronic file: Make copies of the returned copy as required for distribution and for operations and maintenance manuals. Mark up and retain one returned copy as a Project Record Document.
 - b. Product Data: Submit six paper copies unless otherwise indicated. Omnitrans will return one copy. Make copies of the returned copy as required for distribution and for operations and maintenance manuals. Mark up and retain one returned copy as a Project Record Document.
- C. Shop Drawings, Working Plans, Equipment Layout Plans, and Coordination Plans: Prepare Project-specific information, drawn accurately to scale. Do not base Plans on reproductions of the Contract Documents or standard printed data, unless submittal based on the Engineer's digital data plan files is otherwise permitted. Unless otherwise approved by Omnitrans or indicated in specific Sections of the Specifications, Shop Drawings shall be scaled sufficiently large to accurately show all pertinent aspects of the item and its relationship to the Work. The Contractor shall additionally submit the Shop Drawing in PDF electronic format.
- 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.

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- b. Product Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of California registered professional engineer if specified.
 - h. Dimensions and clearances.
 - i. Fabrication and installation Drawings.
 - j. Roughing-in and setting diagrams.
 - k. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring. Differentiate between manufacturer-installed and field-installed wiring.
 - l. Templates and patterns.
 - m. Design calculations.
 - n. Approval number of organizations or agencies with jurisdiction for the Work.
2. Sheet Size: Except for templates, patterns, and similar full-size plans, submit Shop Drawings on sheets at least 8-1/2 x 11 inches but no larger than 24 by 36 inches.
3. Submit Shop Drawings in the following format:
- a. PDF electronic file: Make copies of the returned copy as required for distribution and for operations and maintenance manuals. Mark up and retain one returned copy as a Project Record Document.
 - b. Opaque copies: Submit six of each submittal. Mark up and retain one returned copy as a Project Record Document.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements, and for a comparison of these characteristics between the submittal and the actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components (such as accessories) together in one submittal package.

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2. Identification: Attach a label on the unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
3. Disposition: Maintain sets of approved Samples at the Work Site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Omnitrans' property, are the property of the Contractor.
4. Samples Detailed Work Plans shall be submitted by the Contractor for temporary structures and for such other temporary Work as may be required for construction, but which does not become an integral part of the completed Project. Submittals shall include back-up calculations or any information needed to explain the structure or system or its intended use.
5. Where a submittal involves engineering computations or original design Work is depicted, the submittal shall show the name, the State of California registration number, seal, and signature of the Professional Engineer certifying that such computations or design Work are correct and in conformance with standards, codes, and acceptable engineering practice.
6. Number of Initial Selection Samples: Submit four full sets of available choices where color, pattern, texture, or similar characteristics are required to be selected from a manufacturer's product line.

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7. **Samples for Verification:** Submit full-size units or Samples of the size indicated, prepared from the same material to be used for the Work, cured and finished in the manner specified, physically identical with the material or product proposed for use, and showing the full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
8. **Number of Verification Samples:** Submit four sets of Samples. Mark up and retain one returned Sample set as a Project record sample.
 - a. Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - b. If variations in color, pattern, texture, or other characteristics are inherent in the material or product represented by a Sample, submit at least four sets of paired units that show the approximate limits of the variations.
9. The Contractor shall submit 1 reproducible set and 5 copies of each Shop Drawing submittal. Distribution of submitted Shop and Working Plans by the Contractor for Omnitrans' use will be performed by Omnitrans. The Contractor shall make and distribute all copies required for his purposes.
- E. **Product Schedule:** As required in individual Specification Sections, prepare a written summary indicating the types of products required for the Work and their intended location. Include the following information in tabular form:
 1. Type of product: Include a unique identifier for each product.
 2. Manufacturer and product name, and model number if applicable.
 3. Number and name of room or space.
 4. Location within room or space.
 5. Submit the product schedule in the following format:
 - a. PDF electronic file: Mark up and retain one returned copy as a Project Record Document.
 - b. Paper copies: Submit four paper copies of the product schedule or list, unless otherwise indicated. Mark up and retain one returned copy as a Project Record Document.

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- F. Certificates of Compliance: Certificates of Compliance shall be submitted by the Contractor to Omnitrans for those Materials and products for which no samples and test results are specified. The certificates shall:
1. State that the product complies with the respective Contract Specification and Contract Plan requirements.
 2. Be accompanied by a certified copy of test results pertaining to the product. All test equipment used shall be verified to be in calibration at the time of each test and test reports shall so indicate. No test shall be made without such verification. When required by the Contract Documents or by law, certified test results shall be sealed by a Professional Engineer licensed to practice in the State of California.
 3. Show product represented and its location in the Contract, producer's name, product trade name and catalog number as applicable, place of product origin, test date, testing organization's name and address, quantity of the product to be furnished, and the related Contract Plan Sheet(s) and Specification section numbers.
- G. Where required by the Specification or if requested by Omnitrans, submit the following written statements on the manufacturer's letterhead:
1. Certification that the manufacturer, its products or materials complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
 2. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results verifying the material's compliance with requirements in the Contract Documents.
 3. Product Test Reports: Submit written reports indicating the current product produced by the manufacturer complies with requirements in the Contract Documents. Base reports on an evaluation of tests performed by the manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
 4. Research Reports: Submit written evidence, from a model code organization acceptable to jurisdictional authorities that the product complies with the building code in effect for the Project. Include the following information:
 - a. Name of evaluation organization.
 - b. Date of evaluation.
 - c. Time period when report is in effect.

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- d. Product and manufacturers' names.
 - e. Description of product.
 - f. Test procedures and results.
 - g. Limitations of use.
5. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of the product to determine compliance with performance requirements in the Contract Documents.
6. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
7. Field Test Reports: Submit reports indicating and interpreting results of field tests performed either during installation of the product or after the product is installed in its final location to verify compliance with requirements in the Contract Documents.
8. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, a list of applicable codes and regulations, and calculations. Include a list of assumptions and other performance and design criteria, and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
9. Manufacturer's Instructions: Prepare written or published information that documents the manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include the name of the product and the name, address, and telephone number of the manufacturer. Include the following, as applicable:
- a. Preparation of substrates.
 - b. Required substrate tolerances.
 - c. Sequence of installation.
 - d. Required installation tolerances.
 - e. Required adjustments.
 - f. Recommendations for cleaning and protection.

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10. Manufacturer's Field Reports: Prepare written information documenting the factory-authorized service representative's tests and inspections. Include the following, as applicable:
 - a. Name, address, and telephone number of the factory-authorized service representative making the report.
 - b. Statement on condition of substrates and their acceptability for installation of product.
 - c. Statement that products at Work Site comply with requirements.
 - d. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 - e. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - f. Statement whether conditions, products, and installation will affect warranty.
 - g. Other required items indicated in individual Specification Sections.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with an approval stamp before submitting to Omnitrans.
- B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Section 01 77 19 - Project Closeout and Section 01 78 23 Operation and Maintenance Data.

3.2 OMNITRANS' ACTION

- A. Omnitrans will not review submittals that do not bear the Contractor's approval stamp, and will return such submittals without action.
 1. The review is not conducted for the purpose of determining the accuracy and completeness of other details, such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor.

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2. Compliance with specified characteristics is the Contractor's responsibility; it is not considered part of Omnitrans' review and indication of action taken.
 3. Acceptance of submittals with deviations shall not relieve the Contractor from responsibility for additional costs of changes required to accommodate such deviations. Deviations included in submittals without prior acceptance are excepted from review of submittals, whether noted or not on returned copy.
 4. Review of a separate item shall not indicate acceptance of the assembly of which the item is a part.
 5. Make only those revisions required or accepted by Omnitrans.
 6. Notations by Omnitrans which increase Contract Cost or Contract Time shall be brought to Omnitrans' attention, in writing as a Request for Change, before proceeding with Work.
 7. When professional certification of performance criteria of materials, systems, or equipment is required by the Contract Documents, Omnitrans shall be entitled to rely on the accuracy and completeness of such calculations and certifications.
- B. Action Submittals: Omnitrans will review each submittal, make marks to indicate corrections or modifications required, and return it. Omnitrans will stamp each submittal with an action stamp and mark the stamp appropriately to indicate the action required.
- C. Informational Submittals: Omnitrans will review each submittal and will generally not return it (it will be returned if it does not comply with requirements). Omnitrans will forward each submittal to the appropriate party.
- D. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Omnitrans.
- E. Incomplete submittals are not acceptable; they will be considered nonresponsive, and will be returned without review.
- F. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

3.3 SUBMITTAL STATUS

- A. Submittals reviewed by Omnitrans and returned to the Contractor will be marked with one of the following designations:
1. No Exceptions Taken

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2. Approved as Noted.
 3. Revise and Resubmit.
 4. Rejected
 5. No Action Taken.
- B. Contractor shall not proceed with procurement, manufacture or fabrication of items submitted for review, until such submittals have been designated by Omnitrans as "No Exceptions Taken" or "Approved as Noted." Until submittal items receive such designation by Omnitrans, any costs associated with procurement for these items shall be at the Contractor's risk.

3.4 SUBMITTALS DESIGNATED AS "NO EXCEPTIONS TAKEN" OR "APPROVED AS NOTED"

- A. Each copy of the submittal so designated by Omnitrans will be identified accordingly by being so stamped and dated. One reproducible copy will be returned to the Contractor.
- B. Contractor shall take responsibility for and bear all cost of damages, which may result from the ordering of any material or from proceeding with any part of the Work prior to being marked "No Exceptions Taken" or "Approved as Noted" by Omnitrans.
- C. Where Plans are stamped "Approved as Noted", Omnitrans shall indicate the corrected detail or information as required.
- D. Submittals stamped "No Exceptions Taken" do not relieve the Contractor from the responsibility of performance of Work as intended in the Plans and Specifications.

3.5 SUBMITTALS DESIGNATED AS "REVISE AND RESUBMIT," OR "REJECTED. RESUBMIT"

- A. Each copy of the submittal so designated by Omnitrans will be identified accordingly by being so stamped and dated. One reproducible copy will be returned to the Contractor.
- B. If corrections to the submittals are required, copies returned to the Contractor will be marked "Rejected, Resubmit", or "Revise and Resubmit" and the required corrections shall be made on the re-submittal copies.
- C. Re-submittals will be processed in the same manner as first submittals. On every re-submittals, the Contractor shall note in writing any revisions other than the corrections requested by Omnitrans on previous submittals. Re-submittals shall use the same number as original submittal but will be modified by R and number of re-submittal in the suffix.

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- D. Contractor shall notify Omnitrans prior to execution of any correction, which constitutes a change of the Contract requirements indicated on the submittals.

3.6 SUBMITTALS DESIGNATED AS “NO ACTION TAKEN”

- A. Each copy of the submittal so designated by Omnitrans will be identified accordingly by being so stamped and dated. One reproducible copy will be returned to the Contractor.
- B. Submittals made by the Contractor that are not required by the Contract Documents or were not otherwise requested shall be designated “No Action Taken.”

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 35 23
SITE SAFETY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Work specified in this Section consists of initiating, maintaining, and supervising all safety precautions and programs and assuring a safe Work Site and safe operations around active tracks. The Contractor shall be solely responsible for ensuring that all Work performed under the Contract is performed in strict compliance with all applicable Federal, State, local occupational safety regulations and Operators' safety rules and requirements. This includes the proper manner of protecting personnel and public and the tracks, signals, fiber optic cables, pipe lines, other property, and tenants or licensees upon, adjacent to, across (under or over), and along Omnitrans and Operators' property during the construction or maintenance activities on or adjacent to Omnitrans and Operators' property. This Work includes furnishing, operating, maintaining, and utilizing safety equipment and providing protective equipment, safeguards, and safety devices on construction equipment.

1.2 RELATED REQUIREMENTS

- A. Section 01 14 00 - Work Restrictions.
- B. Section 01 35 44 - Environmental Safety and Health Program.

1.3 REFERENCE STANDARDS & REQUIREMENTS

- A. Comply with the provisions of all local, State, and Federal regulations; with all applicable Specifications, standards, and recommended practices; and with Omnitrans and Railroad Operators' policies, procedures and requirements. Where the State and Federal regulations have differing requirements, the Contractor shall comply with that which is more stringent. These requirements include but are not limited to:
1. CalOSHA: California State Occupational Safety and Health Administration.
 2. California Code of Regulations (CCR) Title 8, and CFR Title 29.

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1.4 SUBMITTALS

- A. Contractor shall submit to Omnitrans for review and approval the submittals listed below. Contractor shall obtain Omnitrans approval of the following submittals prior to the start of construction, or as specified in a Limited Notice to Proceed:
1. Qualifications and certifications of designated lead and other safety representatives, and other first aid providers. This includes the qualifications and certifications of individuals who will serve as qualified or competent persons as defined in CCR Title 8. These supervisory individuals are designated by the Contractor to supervise special high risk/high hazard safety programs such as fall protection, excavation, hazardous substances operations and confined space entry.
 2. Work Plans for all excavation for which a protective system is required by CCR Title 8 Article 6 shall include plans for any ground support system to be used during the excavation and the slopes and configurations of sloping or benching systems. Any engineered shoring shall be designed by a Professional Engineer, Structural or Civil, licensed in the State of California.
 3. Material Safety Data Sheets and other records as required by law.
 4. Immediate notification to Omnitrans is required for injury to any individual; the Contractor shall submit a written report to Omnitrans within 24 hours of said injury.
 5. All cranes and on-track equipment operated on the Work Site by the Contractor and or sub-Contractors of any tier require annual and four-year certifications. Any crane subjected to upset, overloading, side pulling, shock loading or support failure, shall be re-certified to allow further use.

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1.5 SAFETY AND HEALTH PERSONNEL

- A. Provide a Safety Representative who shall coordinate and supervise on-site safety and health, and whose qualifications have been submitted to and approved by Omnitrans. The Safety Representative shall be authorized by the Contractor to direct the immediate correction of any unsafe or unhealthful condition and, as necessary, to stop Work until appropriate corrective measures have been completed. The Safety Representative must be aware of all project-specific safety practices, processes, rules and procedures, and also shall attend required meetings and maintain regular contact with corresponding safety personnel of Omnitrans and the Railroad Operators. The Contractor's Safety Representative shall have no other duties besides those relating to on-site safety and health.

1.6 CONSTRUCTION AND SAFETY EQUIPMENT

- A. Contractor shall provide and maintain lighting, protective devices, barricades, Type K railing, changeable message signs (CMS), and warning signs, all as necessary to ensure the safety of personnel and the general public. The Contractor shall be solely responsible for the timely erection, maintenance, repair, replacement, and removal of such safeguards, without necessity of receiving specific instructions from Omnitrans or any other authority having jurisdiction.
- B. Contractor shall provide job specific fall protection from hazards such as skylights (at any angle), floor and wall openings, leading edges, and steel erection. Methods of protection may include fixed systems (guardrails, covers, nets, etc.) and personal fall arrest systems.
- C. All equipment, tools and or other items used to complete the Work shall be inspected by the Contractor to ensure compliance with applicable regulatory standards. Equipment shall be used in accordance with the respective manufacturer's design, directions, and intended use.

1.7 TESTING EQUIPMENT

Testing equipment, as applicable to Work Site safety, shall conform to the requirements of the California Code of Regulations, Title 8, Division of Industrial Safety, unless indicated otherwise.

1.8 IDENTIFICATION OF CONTRACTOR/SUBCONTRACTOR PERSONNEL

- A. Contractor personnel shall wear hard hats, orange safety vests or orange T-shirts with reflective strips, safety glasses, and safety shoes at all times while on the Project.

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PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 CONSTRUCTION SUPERVISION AND METHODS

A. The Contractor is solely responsible for all construction means, methods, techniques, and procedures and for coordinating all portions of the Work under the Contract. This shall include the following:

1. Contractor shall establish, implement and maintain an effective IIPP in accordance with CCR Title 8 Section 3203. Contractor shall at all times conduct its operations in accordance with the IIPP and in such a manner as to avoid risk of bodily harm to persons or damage to property and shall promptly take all reasonable precautions to safeguard against such risks and shall make regular safety inspections of its operations. Contractor shall be solely responsible for the discovery, determination and correction of any unsafe conditions related to Contractor's performance of the Work.
2. Contractor shall secure all Work areas by barricade in accordance with local and State requirements as applicable at the end of each day.
3. Prior to operating cranes on the Work Site, all crane operators shall have successfully completed testing that verifies the crane operator's ability to read and understand the load chart for the equipment to be operated.
4. All excavation and backfilling operations shall be under the immediate supervision of a competent person, as defined in CCR Title 8, who is fully familiar with the requirements for safe excavation procedures and capable of enforcing strict compliance with the ground support system plan.

PART 4 - MEASUREMENT AND PAYMENT

A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 35 44
ENVIRONMENTAL SAFETY AND HEALTH PROGRAM

PART 1 - GENERAL

1.1 SUMMARY

- A. Contaminated and Hazardous Materials may be encountered during the Work. Contractor shall be solely responsible for ensuring that all Work performed complies with all applicable Federal, State, local occupational safety regulations and Omnitrans and Railroad Operators' rules and requirements.

1.2 RELATED REQUIREMENTS

- A. Section 01 14 00 - Work Restrictions.
- B. Section 01 35 23 - Site Safety Requirements.
- C. California Code of Regulations (CCR) Titles 4 & 8, and the Code of Federal Regulations (CFR) Title 29.
- D. CalOSHA: California State Occupational Safety and Health Administration.
- E. OSHA: Federal Occupational Safety and Health Administration.

1.3 PROCEDURE

- A. If the Contractor encounters substances during performance of the Work that are reasonably believed to be hazardous as defined by the California Health and Safety Code, the Contractor shall notify Omnitrans immediately, submitting written documentation of the incident and notification within 24 hours. Excavation in the immediate area of the suspected hazardous substances shall be suspended until authorization to resume is received. Omnitrans reserves the right to use other labor forces for exploratory work to determine the nature and extent of the hazardous substances.
- B. Omnitrans' role shall be limited to coordination with regulatory agencies to determine sampling and proper disposal of the contaminated soil. The Contractor shall be responsible for loading, unloading, and transporting all soils to a designated site for testing and to a stockpile with proper protection. All import and backfill with suitable material shall be done by the Contractor to restore the site as directed by Omnitrans.

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- C. For asbestos-containing and lead-based materials, all work shall comply with requirements of the California Code of Regulations, Title 8 specifically Section 5192, Hazardous Waste Operations and Emergency Response. An abatement work plan is required before commencing any demolition work.

1.4 SUBMITTALS

- A. An effectively written and coherent Site Specific Safety and Health Plan, as defined in CCR Title 8, prior to the start of construction, or as specified in the Limited Notice to Proceed.
- B. Certificates of training (minimum initial 24 hour hazardous waste training and eight-hour annual refresher), respiratory protection and fit-testing, and medical clearance, before start-up of excavation and drilling activities if required.
- C. Certificate of training (Hazardous Waste Training and eight-hour supervisory training), experience, and credentials of the Site Safety and Health Officer.
- D. Monthly status report of contaminated soil management, including excavated quantities of contaminated soil and work performed using Personal Protective Equipment (PPE). This report must include updated quantities of excavated contaminated soils, and the date, time, number of affected workers, and total number of hours the Contractor performed work in Level C Protection.
- E. The Work plan for removal of lead-contained material shall include the following:
1. A state lead-licensed Contractor and persons shall perform demolition, handling, removal, and monitoring of lead-contained materials.
 2. Air monitoring shall be performed before and during each lead-related activity. The Contractor performing demolition work shall not conduct monitoring work, during or after the completion of all lead-related activities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. PPE and monitoring equipment is to conform to requirements set forth by CAL/OSHA, Federal-OSHA, and the Contractor's Environmental Safety and Health Program.

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2.2 HEPA FILTERS

- A. Provide high-efficiency particulate air (HEPA) filters for persons working on lead-contained materials.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Implement an Environmental Safety and Health Plan for removal of lead-containing material, and excavation and handling of Contaminated and California Hazardous Soils certified by a Certified Industrial Hygienist (CIH) licensed by the American Board of Industrial Hygiene.
- B. Select a team of individuals to be included in the Environmental Safety and Health Program. These individuals must be hazardous-waste trained, medically qualified, and fit-tested with an appropriate respirator to drill, excavate, and handle Contaminated and California Hazardous Soils. Prior to drilling, excavation, or handling of Contaminated and California Hazardous Soils, submit a list of individuals that are part of this team, including their current certificates (training, medical clearance, and respiratory fit-testing). Include their names and titles/positions. Any additional individuals that may handle Contaminated and California Hazardous Soils shall be included in the Environmental Safety and Health Program, including replacement individuals and any new position that require Contaminated and California Hazardous Soil handling. Any handling of Contaminated and California Hazardous Soils must be performed by qualified individuals enrolled in the Environmental Safety and Health Program.
- C. Designate a full-time Site Safety and Health Officer to recognize hazards, and implement and manage the Environmental Safety and Health Program. The Safety and Health Officer can be a Safety Engineer, provided the individual is qualified to conduct air monitoring and identify environmental hazards, and meets all training requirements set forth in 8 CCR 5192 (e), in addition to the qualifications set forth in the Construction Safety and Security Manual. As a minimum, the Safety and Health Officer shall (a) monitor air quality and hazards to personnel and the Work area during removal of lead-containing material and excavation and handling of Contaminated and California Hazardous Soils and Groundwater, and (b) assign PPE and other equipment necessary for the implementation of the Safety and Health Program.

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- D. Supply a direct reading Organic Volatile Analyzer equipped with a Photo-ionization Detector (PID) and an initial supply of PPE readily available for use by the team. Replenish the PPE to ensure a supply of PPE is always available to prevent any delays.
- E. Supply high efficiency particulate air (HEPA) filters for persons working on removal of lead-contained materials.
- F. The Contractor is responsible for any delays associated with lack of preparation, PPE, trained and qualified personnel.

3.2 PERFORMANCE

- A. Provide, without delay to Work, hazardous waste-trained, medically qualified, and respirator-fitted workers, and PPE and other equipment, as necessary for implementation and maintenance of the Environmental Safety and Health Program.
- B. Omnitrans at its cost will have sole right and responsibility to perform soil monitoring and sampling for disposal purposes. If the sampled soil is found to be clean, the Contractor shall dispose of it in the same manner and location as used for other clean soil removed from the site. The Contractor shall be responsible for loading, unloading, and transporting all soils to the designated area. The contaminated and clean soils shall be stored in separated piles. The designated area shall be protected with Visquene sheets covering the ground, and fenced off to prevent trespassing. The soils shall be covered with Visquene sheets prior to legally disposing of them from the site. Omnitrans will be responsible for analyzing soil, as well as for trucking and disposing of the contaminated soil accordingly. The Contractor shall be responsible for loading contaminated soil into trucks furnished by Omnitrans.
- C. In the event the Contractor encounters or suspects contamination, promptly implement measures described in the Contractor Site-Specific Safety and Health Plan, and immediately notify Omnitrans or its designee. The Contractor must use the team; that is, those individuals enrolled in the Environmental Safety and Health Program. Ventilation shall be modified, if necessary or if directed by Omnitrans, to increase airflow and effectively reduce air contaminants prior to and during removal of lead-containing materials, excavation, and handling of Contaminated and California Hazardous Soils. If Excluded Hazardous Waste Operations are required, the Contractor shall adequately protect the safety and health of its employees, and Subcontractors' employees while working in areas not affected.

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- D. Contractor shall be responsible for legal removal of lead-containing materials. Contractor shall employ a state lead-licensed Contractor for performing such work including demolition, handling, removal, and monitoring of lead-contained materials. All work shall be done in full compliance with requirements of the California Code of Regulations, Title 8, Sections 1532.1 and 5198.
- E. The wet method for removal of lead-contained materials shall be used to prevent dust. Lead dust shall be properly disposed of. Air monitoring shall be performed before, during, and after each lead-related activity. A third party without conflict of interest with the Contractor shall conduct the air and clearance monitoring. Surface clearance monitoring shall be conducted after completion of the removal of lead materials. The purpose of the air monitoring is to ascertain that the building air quality is maintained during and after the completion of the Project. All air monitoring results shall be submitted to Omnitrans' Corporate Safety representative for review within 24 hours of receipt from the laboratory.
- F. Contractor is responsible for the safety and health of its employees and its Subcontractors. The Contractor shall conduct air monitoring to ensure compliance with monitoring requirements under the Environmental Safety and Health Program, the Site-Specific Safety and Health Plan, CAL/OSHA, and any other local, state, or federal requirements.
- G. Dust control and suppression mitigation measures shall be employed by the Contractor. Omnitrans reserves the right to conduct air sampling and monitoring to determine the required minimum level of protection.

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered Change Order Work and will be made in accordance with Contract Change Order Procedures.

END OF SECTION

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SECTION 01 40 00 QUALITY REQUIREMENTS
QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspection services are required to verify compliance with specified or indicated Work requirements. These services do not relieve the Contractor of responsibility for compliance with the Contract Documents requirements.
- C. Specific tests and inspection requirements are not specified in this Section but rather indicated or included elsewhere in the Plans and Specifications.

1.2 RELATED REQUIREMENTS

- A. Specific quality assurance and quality control requirements for individual construction activities are specified in the Specifications sections that specify those activities and may also cover production of standard products.
- B. Requirements for Contractor to provide quality assurance and quality control services required by Omnitrans, and the several authorities having jurisdiction, are not limited by provisions of this Section.
- C. Specified tests, inspections and related actions do not limit Contractor's other quality assurance and quality control procedures that facilitate compliance with the Contract Documents requirements.

1.3 DEFINITIONS

- A. Quality Assurance Services: Activities, actions, and procedures performed prior to and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with the Contract Documents requirements.
- B. Quality control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with the Contract Documents requirements. These services do not include contract enforcement activities performed by Omnitrans or Omnitrans' Representative.

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- C. Mockups: Full-size physical assemblies constructed on-site are used to verify selections made under Sample submittals; to demonstrate aesthetic effects and the qualities of products and materials and execution; to review details for construction, coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with required installation tolerances. Mockups are not Samples. Unless otherwise directed by Omnitrans, approved mockups establish the standard by which the Work will be evaluated.
- D. Pre-construction Testing: Tests and inspections that are performed specifically for the Project before products and materials are incorporated into the Work in order to verify performance or compliance with specified criteria.
- E. Product Testing: Tests and inspections that are performed by a Nationally Recognized Testing Laboratory (NRTL), a National Voluntary Laboratory Accreditation Program (NVLAP), or other testing agency qualified to conduct product testing, which firm and procedures must be acceptable to Omnitrans and all other authorities having jurisdiction, to establish product performance and compliance with the specified requirements.
- F. Source Quality Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.
- G. Field Quality Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. "Testing laboratory" shall mean the same as testing agency.
- I. Installer/Applicator/Erector: The Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-Subcontractor, to perform a particular construction operation, including installation, erection, application, and similar construction operations.
 - 1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals or that requirements specified apply exclusively to specific trade(s).
- J. Experienced: When used with an entity of individual, "experienced" means having successfully completed a minimum of 5 previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

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1.4 CONFLICTING REQUIREMENTS

- A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements to Omnitrans for a determination before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed by Contractor. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. Refer uncertainties to Omnitrans for a determination before proceeding.
- C. Items indicated on the Plans but not included in the Specifications, or included in the Specifications but not indicated on the Plans, shall have the same effect as if indicated or included in both the Plans and Specifications.
 - 1. In case of conflict or inconsistency between the Plans and Specifications, Contractor shall request additional information or interpretation; any adjustment by Contractor without such official determination shall be at Contractor's own risk and expense.

1.5 REGULATORY REQUIREMENTS

Comply with all applicable requirements of the laws, codes, ordinances, and regulations of Federal, State, and Municipal authorities having jurisdiction where the Project is located, and obtain necessary approvals from all such authorities.

1.6 ACTION SUBMITTALS

- A. Shop Drawings: The shop drawings shall indicate the manufacturer and model number of individual components. Show plans, sections, and elevations, indicating materials and products specified.
 - 1. Provide axonometric plans for conditions difficult to illustrate in two dimensions.
- B. Engineering-assist Submittal: In addition to Shop Drawings, Product Data, and other required submittals, Contractor shall submit a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to the Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated.

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1. Include listing of codes, loads, and other factors used as a basis in performing these design services.

1.7 INFORMATIONAL SUBMITTALS

A. Contractor's Quality Control (CQC) Plan: Submit a formal plan detailing Contractor's quality assurance and quality control activities and responsibilities. Submit in a format acceptable to Omnitrans. The CQC Plan is due within 30 calendar days following receipt of Notice of Contract Award, but not later than 5 working days prior to initial session of the Pre-Construction Conference.

1. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out the Contractor's quality control responsibilities.
2. Coordinate this Contractor's Quality control (CQC) Plan with the Contractor's construction schedule.
3. Include a comprehensive schedule of Work which delineates required tests and inspections and Contractor-elected tests and inspections, including (a) Contractor-performed tests and inspections, as well as Subcontractor-performed tests and inspections, (b) Special Tests and Inspections pursuant to sub-Section 1.12 – Special Tests and Inspections, and (c) Omnitrans-performed tests and inspections, including tests and inspections required to be performed by the Commissioning Authority and the Railroad Operators.
4. Describe procedures for ensuring compliance with the Contract Documents requirements conducting iterative reviews and effectively managing the submittal process.
5. Describe processes for continuous inspections and non-destructive testing to identify and correct deficiencies in the Work, in addition to specified testing and inspecting. Indicate types of corrective actions to bring non-conforming portions of the Work into compliance with standards of workmanship established by the Contract Documents requirements and approved mockups.
6. Maintain testing and inspection reports, including a log of approved and rejected results. Indicate corrective actions either proposed or taken to bring non-conforming portions of the Work into compliance. Comply with requirements of all authorities having jurisdiction.

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- B. Contractor Quality Control Manager Qualifications: Assign a qualified, full-time individual who shall have experience as a quality control manager implementing field quality control programs and developing quality assurance procedures.
- C. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit a copy of Contractor's written statement to authorities having jurisdiction before starting work on engineered systems, sub-systems and components which shall include, but are not limited to:
1. Temporary systems, assemblies and components for shoring, bracing, earth retaining, scaffolding, railing, forming, false work and similar means and methods of the Contractor.
 2. Temporary and modified passenger platforms including, phasing, staging, and accessibility.
 3. Temporary and modified traffic signaling, street lights, striping, and signage.
- D. Contractor's Testing Agency Qualifications: For testing agencies specified in sub-Section 1.9 - Quality Assurance to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection (audit) of the testing agency by a recognized authority.
- E. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
1. Specification Section number and title.
 2. Entity responsible for performing tests and inspections.
 3. Description of tests and inspection procedures, and use of test equipment.
 4. Identification of applicable standards.
 5. Identification of testing and inspection methods.
 6. Number of tests or inspections required by testing standard.
 7. Time schedule or time span for tests or inspections.
 8. Requirements for obtaining samples for testing.
 9. Unique characteristics of each quality control service rendered.

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1.8 REPORTS AND DOCUMENTS

A. Tests and Inspection Reports: Prepare certified written reports specified in other Sections of these Specifications. Include the following data:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the tested and inspected portion of the Work, and the test and/or inspected method.
7. Identification of product and associated Specifications section.
8. Complete test or inspection data.
9. Test and inspection results, and interpretation of test results.
10. Record of temperature, prevailing weather conditions at time of sampling, test, or inspection.
11. Comments or professional opinion on whether tested or inspected Work complies, or not.
12. Name and signature of laboratory inspector.
13. Recommendations on re-testing or re-inspection, if applies.

B. Manufacturer Technical Representative Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections of these Specifications. Include the following data:

1. Name, address, and telephone number of technical representative making the report.
2. Statement on condition of substrates and their acceptability for installation of product.
3. Statement that products at the Work Site comply with requirements.
4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
5. Results of operational and other proving tests and a statement of whether observed performance complies with requirements.

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6. Statement whether conditions, products, and installation will affect manufacturer's warranty.
 7. Other required items/actions indicated in individual Specifications sections.
- C. Factory-authorized Service Representative Field Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections of these Specifications. Include the following data:
1. Name, address, and telephone number of factory-authorized service representative making the report.
 2. Statement that installed equipment complies with requirements.
 3. Results of operational and other proving tests, and a statement of whether observed performance complies with requirements.
 4. Statement whether conditions, products, and installation will affect manufacturer's warranty.
 5. Other required items/actions indicated in individual Specifications sections.
- D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, all established for compliance with standards and regulations bearing on performance of the Work.

1.9 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this sub-Section establish the minimum qualification levels required; individual Specifications sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

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- D. Installer Qualifications: A firm or individual experience in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Professional Engineer Qualifications: A California Professional Engineer legally qualified to practice in the jurisdiction where the Project is located and experienced in performing engineering services of the kind indicated. Engineering services are defined as those performed for installation, construction and maintenance of the infrastructure including, but not limited to a system, sub-system, assembly, component, or product similar in material, design, and extent to those indicated for this Project.
- F. Specialists: Certain Specifications sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
1. Requirements for specialists shall not supersede building codes and similar regulations governing the Work, nor interfere with local trade jurisdiction settlements and similar conventions.
- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing or inspecting indicated, as documented according to ASTM D 329, and with additional qualifications specified in individual Sections of these Specifications; and, where required by the authorities having jurisdiction, a testing agency that is acceptable to these authorities, as follows:
1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
 3. Each testing agency shall be authorized by the several authorities having jurisdiction to perform testing and inspection services in connection with the Project.
 4. The testing agency shall employ inspecting and testing personnel who are duly certified by the following organizations for materials testing categories listed:
 - a. ACI (American Concrete Institute): Concrete and laboratory
 - b. ASNT (American Society for Non-destructive Testing): Metal fabrications and connections

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- c. AWS (American Welding Society): Metal fabrications and connections.
- H. Manufacturer Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect the installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Factory-authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect the installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. Pre-construction Testing: Where testing agency is indicated to perform pre-construction testing for compliance with specified requirements for performance and test methods, comply as follows:
 - 1. Contractor's responsibilities include all of the following:
 - a. Provide test specimens that are representative of proposed products and construction.
 - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - c. Provide sizes and configurations of site-assembled test assemblies and mockups, as well as laboratory mockups to adequately demonstrate the capability of products to comply with specified performance requirements.
 - d. Build site-assembled test assemblies and mockups using installers who will perform the same tasks for the completed Work.
 - e. Build laboratory mockups at testing facility using personnel, products and methods of construction indicated for the completed Work.
 - 2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality assurance services to Omnitrans with a copy to Contractor.
- K. Mockups: Prior to installation of those portions of the Work requiring mockups, Contractor shall build mockups for each form or construction and finish required to comply with the following requirements, using materials required for the Work:
 - 1. Build mockups in a location, and of the size required or, if not indicated, then as directed by Omnitrans.

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2. Notify Omnitrans at least 7 days in advance of dates and times when the mockup(s) will be constructed.
3. Employ supervisory personnel who will oversee mockup construction, Employ construction workers who will also be employed during construction of the Work.
4. Demonstrate the proposed range of aesthetic effects, material qualities, and workmanship.
5. Obtain approval of mockup(s) prior to performing subject portion of the Work, whether fabrication or construction.
 - a. Allow 7 days for initial review and each subsequent review of each mockup.
6. Maintain all mockups during construction in an undisturbed condition, intended as a standard for judging acceptability of the completed Work.
7. Demolish and remove mockups from Work Site when so directed.

1.10 QUALITY CONTROL

- A. Contractor's Responsibilities: Tests and inspections shall be the responsibility of the Contractor. Contractor shall perform additional quality control activities necessary to verify that the Work complies with the Contract Documents requirements, whether specified or not.
1. Unless otherwise indicated elsewhere in the Contract Documents, Contractor shall provide quality control services required to verify that the Work complies with the Contract Document requirements, whether specified or not, in addition to testing and inspections required by the several authorities having jurisdiction.
 2. Quality control services are Contractor's responsibility. Contractor shall engage a qualified testing agency to perform required quality control services.
 - a. Contractor shall not employ same entity engaged by Owner for testing and inspection unless agreed to, in writing, by Owner.
 - b. Contractor shall notify testing agencies at least 48 hours in advance of time when the Work that requires testing or inspecting will be performed.
 - c. Contractor shall submit a certified report, in duplicate, of each quality control service performed.

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- d. Contractor shall submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
3. Any testing or inspecting requested by Contractor but not required by the Contract Documents shall be Contractor's responsibility and sole expense.
- B. Manufacturer Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report all results in writing.
- C. Manufacturer Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Such services include participation in pre-installation conferences, examination of substrates and conditions, verification of materials used, observation of installer's activities, inspection of completed portions of the Work, and submission of written reports.
- D. Re-testing/Re-inspection: Regardless of whether original tests or inspections were Contractor's responsibility, Contractor shall provide quality control services, including re-testing and re-inspecting, for any construction that replaced portions of the Work that failed to comply with the Contract Documents.
- E. Testing Agency Responsibilities: Testing Agency shall cooperate with all parties, including Omnitrans and Contractor, in the performance of Testing Agency's duties. Testing Agency shall provide qualified personnel to perform required tests and inspections.
 1. Notify Omnitrans and Contractor promptly of irregularities or deficiencies observed in the Work during the performance of Testing Agency's services.
 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 3. Conduct and interpret tests and inspections, and state in each report whether the tested and inspected work complies with or deviates from specified requirements.
 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality control service performed.
 5. Testing Agency shall not release, revoke, alter, or increase the Contract Documents requirements, or approve or accept any portion of the Work.

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6. Testing Agency shall not, in any way, perform any duties of the Contractor.
- F. Associated Services: Cooperate with testing agencies performing required tests, inspections, and similar quality control services, and provide reasonable auxiliary services as requested. Notify testing agency sufficiently in advance to permit timely assignment of testing and/or inspecting personnel.
 1. See also sub-Section 1.11 -- Quality Coordination procedures for further description of associated quality control services.

1.11 QUALITY COORDINATION

- A. General: Coordinate sequence of Work activities to accommodate required quality assurance and quality control services with a minimum of delay and to avoid necessity of removing and replacing construction to facilitate testing and inspection.
- B. Notify Omnitrans at least 48 hours in advance of time when Work that requires testing or inspecting will be performed. Also provide the following in support of testing and inspection services:
 1. Access to the Work.
 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist testing agency in obtaining samples.
 4. Facilities for storage and field curing of test samples.
 5. Preliminary design mix proposed for use for material mixes that may require production control by testing agency.
 6. Security and protection for samples and for testing and inspecting equipment either cured or stored at Work Site.
- C. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality control services required by the Contract Documents, which component of Contractor's Quality Control Plan shall be submitted concurrently with Contractor's construction schedule, but no later than 30 days after Notice to Proceed.

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1.12 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Omnitrans will engage a qualified special inspector to conduct special tests and inspections as required by the authorities having jurisdiction for enforcing code compliance.
- B. It shall be understood that the Special Inspector's activities do not relieve the Contractor of his obligations under this Section 01 40 00 of these Specifications.

1.13 SOURCE OF SUPPLY AND QUALITY OF MATERIALS

- A. Omnitrans shall approve the source of supply of each type of the materials supplied by Contractor before the Contractor or Subcontractor purchases or delivers these materials to the Project.
 - 1. Promptly after receiving the Contract award, Contractor shall notify Omnitrans of all proposed material sources. If it is found after trial that sources of supply previously approved do not produce uniform and satisfactory products, or if the product from any source proves unacceptable at any time, Contractor shall furnish materials from other sources as approved by Omnitrans.
- B. Only materials conforming to these Specifications and approved in advance by Omnitrans may be used in the Work subject to verifying inspection or tests at any time during their preparation or use. No materials or products determined to be unsatisfactory can be used in the Work.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 INSPECTION AND TESTING PROCEDURES

- A. Contractor shall provide Omnitrans with full access to the Work and reasonable time for inspection for ascertaining whether or not the Work is performed in accordance with the requirements and intent of the Contract.
- B. No Work shall be covered or materials used without making the Work, products or materials available for inspection by Omnitrans and authorities having jurisdiction; any Work that is required to be uncovered, removed or replaced shall be at Contractor's own expense.
- C. Inspection will not relieve Contractor from the responsibility of the quality of this Work and obligation to perform the Work in accordance with the requirements of the Contract Documents.

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- D. All materials and every process of manufacture and construction are subject to inspection at all times. Omnitrans and authorities having jurisdiction shall have free access to all such operations. Contractor shall furnish necessary materials and Omnitrans shall have the right to select suitable samples of materials for testing or examination which Contractor shall supply without charge. In case such samples must be shipped to some other point for inspection or testing, Contractor shall box or crate samples as necessary and shall deliver them to points designated for shipment without charge.
1. Omission of inspection shall not relieve Contractor of its obligation to perform the Work required by the Plans and Specifications.
 2. Non-conforming or rejected Work and material shall be removed promptly from the Worksite, and Contractor, at its sole expense, shall promptly remove, reconstruct, replace, and make good any defective Work.
 3. Oversight or error in the judgment of inspectors, or previous acceptance of the Work shall not relieve Contractor from its obligation to correct any defects, wherever and whenever discovered, at Contractor's sole expense.
- E. Adequate facilities shall be made available for the necessary tests and inspections, with free access to all parts of the Work also available, at all reasonable times. Contractor shall have appropriate provisions inserted into each Subcontract it enters into providing for the necessary documentation, facilitation, or in-plant services in support of testing and inspection by Omnitrans.
- F. In the event Contractor does not correct non-conforming Work or remove rejected materials within a reasonable time fixed by written notice, Omnitrans may direct that removals and corrections be performed by other contractors. All charges for such removals and corrections shall be deducted from Contractor's payments due under this Contract or from proceeds paid by Contractor's surety.
- G. Acceptance or rejection by the Railroad Operators shall in no way relieve the Contractor of responsibility for performing Work in accordance with the Contract Documents.
1. After completing the Work, a final inspection will be made and any previous inspection or acceptance will not preclude rejection at time of the final inspection for any item that is not satisfactory to Omnitrans.

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- H. In the event, within such period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract, whichever warranty is longer, for any Work found to be defective or non-conforming, Contractor shall correct it promptly after receipt of written notice from Omnitrans. The warranty obligation shall survive acceptance of the Work or termination of the Contract.
1. In the event Omnitrans prefers to accept or not require correction of defective or non-conforming Work, Omnitrans may do so instead of requiring its removal and correction, in which case Omnitrans shall determine an appropriate sum to be deducted from the Contract Price or otherwise charged against the Contractor, which determination shall be final and binding upon the Parties. Such monetary adjustment shall be effected whether or not final payment has been made.
- I. All defective Work, which has been rejected, shall be remedied or removed and replaced by Contractor, at its own expense, in a manner acceptable to Omnitrans.
- J. Omnitrans may charge the Contractor for any additional costs it incurs for tests and inspections, wherever and whenever Work is not ready at the time indicated by Contractor's notice or when an additional re-inspection is necessitated by prior rejection.
- K. Omnitrans will have access, at all reasonable times, to Contractor's documents, calculations, supporting materials, data, and information concerning the Work, including computer programs and printouts, which supportive information Omnitrans may determine is required to evaluate the Work properly and expeditiously.

3.2 TESTS AND INSPECTIONS LOG

- A. Prepare a complete record of tests and inspections include the following data:
1. Date test or inspection was conducted.
 2. Description of the Work tested or inspected.
 3. An Inspection Checklist appropriate to the portion of Work.
 4. Date test or inspection results were transmitted to Omnitrans and authorities having jurisdiction.
 5. Identification of testing agency or special inspector conducting the particular test or inspection service.

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- B. Maintain log at Work Site. Post changes and modifications as they occur. Provide access to the test and inspection log for Omnitrans' reference during normal working hours. No notice will be required for Omnitrans' access to the Contractor's test and inspection logs and associated documents.

3.3 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sampling, and similar services, repair damaged construction and restore substrates and finishes.
- B. Provide materials and comply with installation requirements specified in other Specification Sections. Restore patched areas and extend restoration into adjoining areas with durable seams that are as nearly invisible as possible.
- C. Protect construction exposed by or for quality control service activities.
- D. Repair and protection are the Contractor's sole responsibility, regardless of the assignment of responsibility for quality control services.

3.4 OMNITRANS'S REMEDIES FOR DEFICIENT WORK

- A. If any Work provided by Contractor is determined to be deficient, Omnitrans shall provide written notice to Contractor enumerating such deficiencies and may thereafter take one or more of the following actions:
1. Require Contractor to promptly remove rejected Work from the Project at Contractor's own expense and without any extension of Contract Time;
 2. Require Contractor to re-perform, repair, or replace rejected Work, products, materials, or other items at Contractor's own expense and without any extension of Contract Time;
 3. Withhold payments otherwise due to Contractor hereunder;
 4. Have remedial Work performed and products or materials provided by others at Contractor's sole expense and without any extension of Contract Time; and
 5. Terminate the Contract and obtain the remedies provided for therein.
- B. Corrected or re-performed remedial Work, and replaced or repaired products/materials, shall be subject to all of the Contract Documents requirements, including without limitation all standards of performance set forth under this Contract.

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- C. Costs for re-testing and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor and the Contract Price will be adjusted by Change Order.

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 44 00

QUALITY ASSURANCE AND QUALITY CONTROL

PART 1 - GENERAL

1.01 SUMMARY

- A. The Agency will perform oversight Quality Control (QC) Management and Inspection activities for the Contract through its staff (the Engineer and staff and QC Manager and staff).
- B. The Contractor shall thoroughly familiarize himself with quality requirements of this Contract as described in the Contract Documents. The Contractor has primary responsibility for assuring that material furnished and Work performed conforms to details shown on the Plans and requirements given in the Specifications. The Contractor shall be required to perform all Quality Assurance Testing and Inspection services for all work incorporated on the project in accordance to all regulatory specifications, applicable codes and the contract documents. All quality testing, inspection, submittals, permit requirements and their associated costs are the responsibility of the Contractor.
- C. The Agency including the Engineer and the QC Manager and the Contractor will jointly develop a Quality Control Plan which will include a Three-Phase Inspection and Testing Program and an Inspection & Test Plan (I &TP).
- D. The Quality Control Plan (QCP) shall address the following:
 - 1. Contractor Management Responsibility (FTA Element 1)
 - a. The Contractor's quality policy shall be stated in the QCP. Those persons in the construction organization (general superintendent, foreman, etc) responsible for assuring quality control during the construction process shall be identified in the QCP. The responsibility, authority, and interrelation of those persons shall be defined. An Organization Chart detailing organization and reporting responsibilities will be included.

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2. Contractor Document Control (FTA Element 4)

- a. Document control procedures shall be developed that become a part of the QCP that provide controls for the Plans, Specifications, Project Data, inspection procedures, test procedures, special work instructions, receipt and transmittal of submittals, and control and issuance of Request for Information (RFI). Provide for the distribution and storage of Project documents and prompt replacement of obsolete documents from each work location retaining superseded documents in project files and clearly identify each as such. Develop document control measures to assure that all relevant documents are current and available to all users who require them, including As-Built Drawings as specified in Section 01789.

3. Contractor Purchasing (FTA Element 5)

- a. Assure that Contractor purchased services and products conform to specified requirements. Impose upon Suppliers and Subcontractors within procurement documents the same quality control requirements, including inspection and test requirements, as imposed by the Specifications and referenced standards.

4. Contractor Product identification and traceability (FTA Element 6)

- a. The Contractor shall address measures that assure that procured items, equipment, and materials are physically identified from receipt through installation by markings or physical location. These measures shall be addressed in the QCP. Establish Material control measures in the QCP to ensure that equipment and materials accepted through receiving inspection comply with procurement documents, and to assure that equipment and Materials are properly received, inspected, stored, maintained, installed, and used. Develop and maintain a Receiving Inspection Log.

5. Quality Control Inspection (FTA Element 8)

- a. The Contractor shall develop, implement, and maintain a Three-Phase Inspection & Testing Program and an Inspection & Test Plan (I & TP) consistent with the requirements of this Section. Construction activities

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may commence when it is determined by the Engineer that the I & TP is sufficiently complete to meet the intent of this Section.

- b. Within the I & TP, identify all required inspections and tests specified by each Specification Section, the required frequency of each, the accept/reject criteria of each, records required to document compliance, and the inspection and test procedures or instruction to be used for control of each activity.
- c. The Contractor shall establish and implement a Three-Phase Inspection and Testing Program to assure that the proper preparations have been completed prior to performing definable features of the Work.
 - 1) Generally, the definable features of work include such items as complex or critical operations, major construction activities, installation or construction of elements of work, first efforts on selected features of work, and rework and repair operations.
- d. The Three-Phase Inspection and Testing Program consist of preparatory phase meetings (i.e. construction planning meetings), initial phase inspections, and follow-up phase inspections. The Preparatory Phase Checklist and Three-Phase Checklist forms as appended to this Section will be completed prior to each preparatory phase meeting. Other interested parties participating in the preparatory phase meetings such as the Agency, utilities, City representatives, and other construction contractors can integrate their work operations and inspections into the phase of the Work discussed.
- e. The Contractor will employ the services of an independent certified material testing laboratory (or laboratories) to perform Materials testing, and control testing of Materials incorporated into the Work.
- f. The laboratory must be accredited by one of the accreditation agencies listed in the FTA Quality Assurance and Quality Control Guidelines to perform the specific tests or types of tests or calibrations required by the Specifications. Provide two copies of all test reports to the Engineer at the completion of each test.

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- g. A process for notifying the Engineer when Contractor is ready for Agency Quality Control Inspection and sign-off will be addressed in the QCP. The Contractor shall verify that each work element is in compliance with the Contract Documents prior to requesting Agency inspection. The Contractor shall provide a minimum of 24-hour advance notice to the Engineer for Agency inspection.

6. Contractor Inspection, Measuring and Testing Equipment (FTA Element 9)

- a. For Contractor furnished testing, the Contractor shall be responsible to identify, control, calibrate, and maintain inspection, measuring, and test equipment (M&TE) required to perform inspections, tests, and measurements in order to demonstrate the conformance of Work to the specified requirements. Calibration standards shall be traceable to NIST.

7. Nonconformance Reporting (FTA Elements 11 & 12)

- a. During the course of the work, the Engineer may issue Nonconformance Reports. The resolution of nonconforming item/Material issues must be developed by the Contractor and accepted by the Engineer. The Contractor must complete Nonconformance Reports addressed to the Contractor within the time period specified on the Nonconformance Report. The Contractor response shall include a description of investigative actions, statement of the cause of the problem, actions to correct the problem(s) and actions to prevent recurrence.
- b. Corrective action dispositions to Nonconformance Reports are as follows:
 - 1) REPAIR – Nonconforming items or Work that are restored to a conforming condition by alternate means.
 - 2) REWORK – Nonconforming items or Work that are restored through additional normal processing.
 - 3) USE-AS-IS – Nonconforming items or Work that are to be used in its current condition.

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- 4) SCRAP – Nonconforming items that do not meet requirements.
- 5) Items having Nonconformance Reports assigned either a REPAIR or USE-AS-IS disposition must be re-inspected by the Engineer in accordance with original requirements
- 6) REJECTED – Nonconforming items of Work that are to be removed and replaced.

8. AGENCY Audits:

- a. Quality audits of Contractor, Subcontractor, and Supplier activities may be performed by Agency representatives to verify compliance with the Contract Documents. Upon notice by the Engineer, provide timely access to facilities, locations, records, and personnel by Agency auditors to facilitate performing the Agency Audits. Assure cooperation with Agency auditors by all project personnel. Provide timely and thorough responses to Agency identified quality problems.

1.02 RELATED SECTIONS

- A. Section 01 33 00 – Submittal Procedures
- B. Section 01 77 19 – Project Closeout
- C. Section 01 78 39 – Project Record Documents

1.03 REFERENCES

- A. American Society for Testing and Materials [ASTM]
 - 1. ASTM E329 Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.
- B. Federal Transit Administration [FTA] FTA-IT-90-5001-02.1 Quality Assurance and Quality Control Guidelines.

1.04 QUALITY PROGRAM REQUIREMENTS

- A. Before starting the Work, a Quality Control Plan (QCP) for this Project that complies with all elements of the Contract will be developed in accordance with this Section.

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- B. The Contractor will bear all costs for Contractor Independent Certified Material Testing Laboratory's material testing and control testing of materials required by individual Contract Sections.

1.05 FIELD QUALITY CONTROL

- A. Construction quality control functions and testing for this Contract will be performed in accordance with the Quality Control Plan (QCP) and the requirements of individual Specification Sections.
- B. If conflicts between the requirements of this Section and the requirements of individual Specification Sections exist, the requirements of this Section shall take precedence.

1.06 SUBMITTALS

- A. Submittals shall be in accordance with the requirements of Section 01 33 00, Submittal Procedures, except as modified herein:
- B. Contractor information required to jointly develop the QCP, I & TP and Three Phase Inspection & Test Program as outlined herein. CDRL 01 44 00-1
- C. Contractor's Independent Certified Material testing laboratory's/laboratories' qualifications and certifications submitted 21 days prior to using their services. CDRL 01 44 00-2
- D. List of Suppliers and Subcontractors. CDRL 01 44 00-3
- E. Response to Nonconformance Reports and Audit Reports. CDRL 01 44 00-4

PART 2 - PRODUCTS

NOT USED

PART 3 – EXECUTION

3.01 FAILURE TO PERFORM

- A. In the event the Contractor fails to adequately perform any or all of the provisions of this Section, the Agency, at its sole discretion, reserves the right

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to have the Engineer perform any or all of the provisions of this Section and back charge the Contractor for the actual cost to the Agency of such services.

- B. This remedy for Contractor's failure to perform is in addition to any other right or remedy available to the Agency under this Contract.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

- A. No separate measurement will be made for the Work described in this Section.

4.02 PAYMENT

- A. No separate payment will be made for the Work of this Section because its cost is incidental to other payment items.

END OF SECTION

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SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes Work Site mobilization of personnel, equipment, supplies, and appurtenances, all in ready and satisfactory working and operational order, which the Contractor intends to use for the Work; for the establishment of all temporary offices and Contractor-owned structures and other temporary facilities necessary to perform the Work; proper safety training of project personnel; and for incidental Work and operations which must be performed prior to beginning Work on the various Contract items. Also included is the demobilization or removal of all personnel, equipment, supplies, appurtenances, Contractor-owned structures, temporary facilities, materials, and debris from the Work Site and restoration of site and surrounding properties, affected by the Contractor's activities, to specified conditions.

1.2 RELATED REQUIREMENTS

- A. Section 01 35 23 - Site Safety Requirements.
B. Section 01 35 44 - Environmental Safety and Health Program.
C. Section 01 56 37 – Work Site Security Requirements.
D. Section 01 57 19 - Temporary Environmental Controls.

1.3 INFORMATIONAL SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
B. Fire Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate the Contractor's personnel responsible for management of fire prevention program.
C. Dust Control Plan: Submit coordination drawing and narrative that indicates the proposed dust control measures for use, locations, and time frame for their implementation. Identify further options if proposed measures are later determined to be inadequate. Include the following:
1. Locations of dust control at each phase of work.
 2. Watering duration and rewatering cycle, if watering is proposed as a dust-control measure.

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3. Waste handling procedures.
4. Other dust-control measures.

1.4 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70 and the requirements of jurisdictional authorities.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the U.S. Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

PART 2 - PRODUCTS

2.1 TEMPORARY FACILITIES

- A. Contractor shall provide storage and fabrication sheds amply sized, furnished, and equipped to accommodate materials and equipment for construction operations and shall store combustible materials apart from buildings and structures. Provide portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

2.2 PROJECT SIGN

- A. One project sign, also called Construction Sign, shall be provided and installed at the location directed by Omnitrans. The project sign shall be of similar detail as shown on SCRRA Engineering Standard Drawing ES5201.

PART 3 - EXECUTION

3.1 PRESERVATION OF PROPERTY OR PROTECTION OF PROPERTY

- A. Contractor shall be responsible for the protection of public, private, and Omnitrans property adjacent to and within the Work Site, and shall be responsible for bearing the cost and performing the repair work necessary to restore or repair damaged areas. The Contractor shall supply all firefighting equipment, supplies, and personnel, and perform all Work required by the laws and regulations pertaining to fire prevention.

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- B. Due care shall be exercised to avoid injury to existing improvements or facilities on adjacent property. The Contractor shall provide and install suitable safeguards to preserve and protect properties adjacent to the Work Site from injury or damage. If such properties are injured or damaged by reason of the Contractor's operations, they shall be restored at the Contractor's sole expense. Damaged properties shall be repaired and restored to a condition as good as when the Contractor entered upon the Work Site. Omnitrans may make or cause to be made such temporary repairs as are necessary to restore to service any damaged property. Place steel plates to cover trenches and excavation outside of fenced construction areas at all times that Work is not ongoing. The steel trench plate shall be a minimum of 1 inch thick, with anti-slip coating or treatment and having sufficient bearing surface to support heavily loaded trucks and emergency equipment. The steel traffic plate shall be anchored and have approach ramping against movement.

3.2 STAGING AND LAYDOWN AREAS

- A. Staging and laydown areas not indicated in the Contract Documents shall be requested in writing and approved by Omnitrans. This approval may or may not be granted by Omnitrans. No equipment may be operated or materials stored or placed for any period of time in areas closer than 25 feet from live tracks without EIC pre-approval. The Contractor shall provide a security fence to enclose each laydown or staging area. The Contractor shall furnish Omnitrans with photographs of all staging and laydown areas to document their condition prior to the start of Work.
- B. Contractor shall confine Work Site operations to areas permitted by law, ordinances, permits, and the Contract Documents.
- C. Contractor shall relocate stored products, equipment, and materials that interfere with train operations, public and private utilities, or the visibility at railroad crossings.
- D. Contractor shall coordinate construction operations and if necessary secure additional areas from adjacent property owners, at no cost to Omnitrans. The Contractor shall submit a plan showing areas proposed for staging and laydown for Omnitrans' approval before use.
- E. In addition to site utilization limitations and requirements indicated on Contract Documents, the Contractor shall provide temporary parking areas for construction purposes and divide available space equitably among Subcontractors and other entities needing access and space.
- F. Contractor shall schedule deliveries, so as to minimize space and time requirements for storing material and equipment, with minimal disruption to adjacent property owners and their operations.

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3.3 ACCESS AND CONSTRUCTION ROADS

- A. Access to the Work Site from existing public roads, private property, or along the right-of-way of Omnitrans shall be arranged for and provided by the Contractor. Omnitrans assumes no responsibility for the condition or maintenance of any road or structure thereon that may be used by the Contractor in performing the Work or in traveling to and from the Work Site.
- B. Existing roads shall be used whenever possible for access to the Work Site. Construction of new roads or use of existing roads shall be subject to approval by the appropriate governmental agency, adjacent property owner(s), and Omnitrans. Temporary roads shall be rehabilitated upon termination of use. The roads shall be graded to conform to original topography to the greatest extent possible. Cut slopes shall be reduced to a grade consistent with adjacent topography, protected from erosion, and revegetated.
- C. The Contractor's haul or service road shall be located so that, upon the completion of the Work, a continuous road, where possible, will remain on the right-of-way throughout the entire length of the project. Omnitrans will designate the location of the road.
- D. At locations where the proposed access or construction road would cross existing roads, highways, or at other locations where the Contractor's equipment would cross existing roads or highways, the Contractor shall obtain the necessary approval and permits from the appropriate governmental agency(ies) for such crossings and detours as may be required. The Contractor shall maintain such crossings and detours in safe condition for passage of all traffic; shall provide flag persons and watchmen as required; and shall furnish and maintain temporary drainage diversions, guard fences, lights, warning signs, and other facilities necessary to protect traffic. Public access to the Contractor's road shall be controlled by cable barrier or gate that is locked with a series of padlocks including Omnitrans and the Contractor locks. Such gates or barriers are to be maintained in a closed configuration to prohibit unauthorized access.
- E. The Contractor may, upon approval of Omnitrans, construct temporary railroad crossings for the purpose of performing the Work. An EIC shall be required at all such crossings at all times during construction. A physical barrier shall protect the crossing when not in use. Temporary crossings shall be removed upon completion of the Work.
- F. Contractor shall provide dust control treatment that is non-polluting and non-tracking. Reapply treatment as required to minimize dust.

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- G. Upon completion of the Work, restore access and staging areas to a condition that is equal to or better than that prior to the Contractor entry, and as accepted by Omnitrans. All residual materials shall be removed and all areas used shall be bladed smooth upon completion of use. The Contractor shall photograph the project site(s) and submit the photographs to Omnitrans to demonstrate that staging and access areas have been restored to the pre-construction condition.
- H. Fences, walls, signs, and gates affected by the Contractor's access to the right-of-way(s) shall be restored to full serviceability prior to demobilization.
- I. Maintain traffic controls, access for fire-fighting equipment and access to fire hydrants. Protect existing site improvements that are to remain, including, but not limited to, curbs, pavement, and utilities.

3.4 LIMITATION ON THE USE OF HEAVY EQUIPMENT

- A. If the Contractor anticipates using any vehicles or equipment over 20,000 pounds (loaded) during the performance of the Work, dimensions and weights of such equipment shall be submitted to Omnitrans for approval prior to use.
- B. Unless expressly permitted elsewhere in the Contract Documents, the Contractor shall not operate construction equipment or vehicles of any kind which, laden or unladen, exceed the maximum weight limits set forth in Division 15 of the California Vehicle Code over completed or existing base, surfacing, pavement, or structures.

3.5 HAZARDOUS CHEMICALS, WASTES AND MATERIALS

- A. Hazardous chemicals, wastes, and materials are defined as any product, substance, chemical, or material whose nature, quantity or intensity of existence, use, manufacture, disposal, transportation, spill, release, or effect, either by itself or in combination with other chemicals or materials in, on, or about the Work Site: (a) is or becomes potentially injurious to the public health, safety or welfare, the Environment, or the Work Site; (b) is or becomes regulated or monitored by any governmental authority; or (c) may, according to statutory or common law theory, such as nuisance (public or private), waste, trespass, negligence, strict liability, or tort, be a basis for liability in tort, or be a basis for liability to third parties.

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- B. The Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) prohibits employers from knowingly discharging or releasing a chemical or other material known to the State of California to cause concern, birth defects, or other reproductive harm into water or onto land where such chemical passes or probably will pass into any source of drinking water. Notwithstanding any provisions in this Act exempting the Contractor, the Contractor hereby agrees to comply with all provisions of the Act relating to the discharge of hazardous chemicals and materials on the Work site.
- C. The Contractor's employees and Subcontractors of any tier shall not discharge such chemicals or materials on the Work site that will result in the discharge of such chemicals, and shall, upon completion of performance of all other duties under this Contract, remove all supplies, materials, and waste remaining on the job site which if exposed, could result in the discharge of such chemicals, materials, and wastes.
- D. The Contractor, the Contractor's employees, and Subcontractors of any tier shall also comply with the State of California anti-smoking laws that, in part, prohibit smoking in the workplace and in enclosed areas.
- E. Should the Contractor, the Contractor's employees, Subcontractors of any tier, or their employees fail to comply within 24 hours from receipt of written notice of noncompliance from Omnitrans, or other Authority of competent jurisdiction, or within the time of an abatement period specified by such Authority of competent jurisdiction, whichever period is shorter, Omnitrans may give notice of default to the Contractor. Failure of Omnitrans, or other Authority of competent jurisdiction to issue notice to the Contractor shall not relieve the Contractor of its responsibilities under this Section.

3.6 PESTICIDES, FUEL OIL, AND GREASE

- A. Contractor shall comply with all local, state, and federal rules and regulations of the Department of Food and Agriculture, the Department of Health, the Department of Industrial Relations, the Department of Toxic Substance Control, and all other agencies that govern the use of pesticides, fuel oil, and grease required in the performance of the Work. Fuel, oil, and grease include any crude oil or any products, byproducts, or fractions thereof.
- B. Pesticides include but shall not be limited to herbicides, insecticides, fungicides, rodenticides, germicides, nematocides, bactericides, inhibitors, fumigants, defoliant, desiccants, soil sterilants, and repellents.
- C. Any substance or mixture of substances intended for preventing, repelling, mitigating, or destroying weeds, insects, diseases, rodents, or nematodes, and any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant, shall be considered as a pesticide.

HDR

San Bernardino Transit Center Generator Modifications

Omnitrans

City of San Bernardino

TEMPORARY FACILITIES AND CONTROLS

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3.7 DISPOSAL OF MATERIALS OUTSIDE THE WORK SITE

- A. Unless otherwise stated elsewhere in the Contract Documents, the Contractor shall make its own arrangements for disposing of materials outside the Work Site. The Contractor shall obtain written permission or permit from the property owner on whose property the disposal is to be made. Prior to the disposal of any material at the intended location, the Contractor shall submit said written permission or permit to Omnitrans for approval, together with a written release from the property owner absolving Omnitrans from any and all responsibility related to the disposal of material on said property.
- B. Disposal of all Hazardous Materials shall be done in accordance with all laws and regulations. Copies of a required regulatory documentation, including copies of final manifests, shall be submitted to Omnitrans.

3.8 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Site Enclosure Fence: Before construction operations begin, provide a site enclosure fence in a manner that will prevent people and animals from easily entering the site except by entrance gates.
 - 1. Extent of Fence: As required to enclose the entire Project site or that portion determined sufficient to accommodate construction operations.
 - 2. Maintain security by limiting the number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Omnitrans.
- B. Security Enclosure and Lockup: Install temporary enclosures around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at the end of each work day.
- C. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- D. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- E. Covered Walkway: Erect protective, covered walkways where identified on the Plans or directed by Omnitrans for passage of individuals through or immediately adjacent to the Project site. Coordinate with entrance gates, other facilities, and obstructions. Comply with regulations of authorities having jurisdiction and requirements indicated on Drawings.

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1. Construct covered walkways using scaffold or shoring framing.
 2. Provide overhead decking, protective enclosure walls, handrails, barricades, warning signs, exit signs, lights, safe and well-drained walkways, and similar provisions for protection and safe passage.
 3. Paint and maintain appearance of walkway for duration of the Work.
- F. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage the fire-prevention program.
1. Prohibit smoking in construction areas.
 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to Contract requirements.
 3. Develop and supervise an overall fire prevention and fire protection program for personnel at the Project site. Review needs with the local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
 4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip them with suitable nozzles.

3.9 PUBLIC SAFETY AND CONVENIENCE

- A. Contractor shall conduct its operations so as to offer the least possible obstruction and inconvenience to the public and shall have under construction no greater length or amount of work than can be prosecuted properly with due regard to the rights of the public. The Contractor shall control temporary noise from construction equipment by using work hour controls and maintenance of muffler systems on machinery.
- B. Construction shall be conducted so as to cause as little inconvenience as possible to adjacent property owners. Convenient access to driveways, houses and buildings along the line of Work shall be maintained and temporary approaches to crossing or intersecting highways shall be provided and kept in good condition. When the adjacent property owner's access is to be eliminated and replaced by other access, the existing access shall not be closed until the replacement access is facilitated.

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- C. The Contractor, at its expense, shall provide adequate safeguards, safety devices and protective equipment and take any other needed action both of its own volition and responsibility or that which Omnitrans may determine is reasonably necessary to protect property, life, health and public safety in connection with the performance of the Work covered by the Contract Documents.
- D. Contractor shall make all reasonable efforts to maintain good will among landowners, tenants, lessees, and members of the general public and shall not knowingly violate any right of such persons in the performance of the Work. To this end, the Contractor specifically agrees to not:
1. Leave gates, gaps, or fences open, unattended or insecurely fastened.
 2. Use private driveways or roadways without Authority.
 3. Use land beyond limits of the right-of-way without Authority
 4. Leave trash or debris on the land.
 5. Permit the personal misconduct of its employees or any of its Subcontractor's employees.
- E. In the event the Contractor's operations cause injury to any persons or damage to public or private property, including above and below ground structures, the Contractor shall immediately contact emergency services for the local Authority and within twenty-four (24) hours, give notification in writing to Omnitrans of such damage or injury. The Contractor shall be responsible and liable for all damages and injuries.
- F. Unless otherwise noted, all construction operations shall preserve existing drainage paths and vehicular and pedestrian access. The Contractor shall also regularly attend to dust, mud, trash, noise, debris, etc., caused by construction operations to prevent a public nuisance.
- G. All paved areas, including asphalt concrete berms cut or damaged as a result of construction, shall be replaced with similar materials of equal thickness to match the existing adjacent undisturbed areas, except where specific resurfacing requirements have been called for in the Contract Documents or in the requirements of the agency issuing the permit. All temporary and permanent pavements shall conform to the requirements of the affected pavement owner. All pavement that is subject to partial removal shall be neatly saw-cut in straight lines.

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- H. In order to obtain a satisfactory junction with adjacent surfaces, the Contractor shall saw-cut back and trim the edge of the surface so as to provide a clean, sound, vertical joint before temporary or permanent replacement of an excavated or damaged portion of pavement. Damaged edges of pavement along excavations and elsewhere shall be trimmed back by saw-cutting in straight lines. All pavement restoration and other facilities restoration shall be constructed to finish grades compatible with adjacent undisturbed pavement.
- I. Where sidewalks have been removed for purposes of construction, or damaged, the Contractor shall place properly protected, suitable temporary sidewalks, promptly after backfilling, and shall maintain them in satisfactory condition until the final restoration thereof has been made.

3.10 STATION PLATFORM AND PASSENGER ACCESS

- A. Contractor shall conduct its operations so as to offer the least possible obstruction and inconvenience to the traveling public accessing and utilizing the track platforms for Omnitrans train operations. The Contractor shall have the required minimum platform length including temporary platforms and number of tracks available for use by Omnitrans and the Railroad Operators.
- B. The Contractor must construct or maintain two entrance / egress points or walkways to every platform or partial platform which is in operation for revenue service. These walkways (minimum 8 feet width) must be maintained and remain unblocked until train operations cease for the day on that track.
- C. Contractor shall remove the existing mini-high platforms, infill voids with concrete to restore platform surface and construct temporary mini-high platforms which can be moved and anchored into new locations as required accommodating the temporary platform length and location changes throughout the Contractors Work. The Contractor will be required to move these temporary mini-high platforms as directed by Omnitrans.
- D. Contractor shall provide temporary lighting for temporary platforms including ingress and egress in accordance with Specification 26 56 00 Exterior Lighting.

3.11 DISRUPTION MITIGATION

- A. Omnitrans, Omnitrans' Contractors and other railroads may occupy the Work site during the entire construction period for the conduct of Omnitrans' and the railroad's normal operations. The Contractor shall cooperate with Omnitrans and the railroads, through Omnitrans, in scheduling operations to minimize conflicts so as to not interfere or impair the normal operation of Omnitrans or other railroads.

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- B. Contractor shall develop and submit for Omnitrans' approval a disruption mitigation plan that identifies and establishes criteria for the performance of the Work that requires coordination and sequencing based on the operational requirements of Omnitrans and the other railroads, and to allow the free flow of public traffic within the public rights-of-way. The Contractor shall incorporate operational data and information and requirements given by Omnitrans, other railroads, and local municipal transportation agencies in developing such plan, and in planning and scheduling its work to prevent interruption or impairment of the normal operations of Omnitrans, the other railroads, and public traffic. The Contractor shall avoid disruptions to the normal operations of Omnitrans, other railroads, and public traffic, and shall plan, schedule, coordinate and construct the Work in such a way as to accommodate the normal operations of Omnitrans, other railroads, and public traffic. The Contractor must always maintain sufficient train platform access and infrastructure to prevent any delay to railroad passengers boarding and de-boarding trains.
- C. Upon the completion of each day's Work, the Contractor shall make the active railroad tracks and facilities suitable for the passage of trains. The operation of trains over portions of the Work not completed will be in accordance with the FRA requirements. The operation of trains over portions of the Work will not constitute Beneficial Occupancy.

3.12 OPERATION, TERMINATION, AND REMOVAL

- A. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- B. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with a temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
1. Materials and facilities that constitute temporary facilities are the property of the Contractor. Omnitrans reserves the right to take possession of Project identification signs.

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2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where an area is intended for landscape development, remove soil and aggregate fill that do not comply with the requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt, other petrochemical compounds, and other substances that might impair the growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section, except as noted below in B - Mobilization and Demobilization
- B. Mobilization and Demobilization:
 1. Mobilization and demobilization (including but not limited to temporary facilities, safety, security, equipment mobilization, survey, insurance, workmen's comp) will be measured and paid for as one (1) item completed and as lump sum. This price shall be full compensation for furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary for the Work of this Section.
 2. The Contract Price will be paid as follows:
 - a. When 10 percent of the awarded Contract Price(s) is earned, excluding bonds, insurance, mobilization, demobilization and amount paid for materials on hand, 40 percent of the amount bid for mobilization and demobilization will be paid.
 - b. When 75 percent of the awarded Contract Price(s) is earned, excluding bonds, insurance, mobilization, demobilization and amount paid for materials on hand, 60 percent of the amount bid for mobilization and demobilization will be paid.
 - c. 100 percent of the amount bid for mobilization and demobilization will be paid after Omnitrans has determined that the Work is complete in accordance with the Contract Documents, including technical specifications, and the Contractor has left the Work Site in a clean and acceptable condition.

END OF SECTION

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SECTION 01 56 37
WORKSITE SECURITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section addresses providing, operating, and maintaining security at the Work Site during construction. "Security" refers to the protection of Omnitrans property, and the property of the Contractor from theft, vandalism, pilfering or other destructive activities. It is the Contractor's sole responsibility to provide protection for any property (including equipment and supplies) under the Contractor's care, custody, and control.

1.2 RELATED REQUIREMENTS

- A. Section 01 35 23 - Site Safety Requirements.
- B. Section 01 50 00 - Temporary Facilities and Controls.

1.3 REQUIREMENTS

- A. Contractor shall establish, implement, and maintain an effective, site-specific Security and Loss Prevention Program (SLPP). The Contractor is solely responsible for record keeping and for ensuring that Subcontractors are informed of and comply with the SLPP.
- B. Contractor shall comply with CCR Title 8, as well as all other federal, state, and local regulations, statutes, and codes applicable to security operations.
- C. Compliance with all parts of this Section shall be considered entirely the responsibility of the Contractor. No delays to the Contractor Contract Time relating to any Work Site Security requirements will be allowed by Omnitrans.
- D. The SLPP shall comply with CFR 1926.800 (b) (3), which states: "The employer shall control access to all openings to prevent unauthorized entry underground. Unused chutes, manways, or other openings shall be tightly covered, bulkheaded, or fenced off and shall be posted with warning signs indicating 'Keep Out' or similar language." The SLPP shall include methods of protecting physical structures above, below, or at grade from trespassers and malicious mischief.
- E. Contractor, or subcontracted Security Firm(s) if utilized, shall coordinate with local law enforcement and with Omnitrans for patrol enhancement through Omnitrans' representative.

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F. Contractor shall comply with Omnitrans requirements regarding the protection of the public, group tours, site visitors, and office safety.

1.4 SUBMITTALS

A. Contractor shall submit, for acceptance by Omnitrans, a written site-specific SLPP that addresses both active and passive security measures to be implemented by the Contractor for project-related Work Sites. This SLPP will be revised and resubmitted as conditions warrant and shall include at least the following:

1. Lighting/illumination: The Contractor shall provide and maintain adequate lighting throughout each Work Site. This includes staging, laydown areas, and employee parking lots.
2. Office Security: All Contractor office facilities shall be secured to prevent entry, and shall be provided with alarm systems.
3. Physicals barriers: The Contractor shall provide and install perimeter fencing. Access areas shall be closed and locked at the end of shift or when work is completed in the area. Temporary construction protection fencing shall be required specific to Work Site activities.
4. Project warning signage: The Contractor shall provide signs such as "Keep Out – No Trespassing" or safety directive signs for pedestrians and/or other contractors and employees as required.

B. Should conditions change, the Contractor will be required to resubmit an updated, site-specific SLPP that reflects the changes in conditions. Any required resubmittal shall be considered within the original scope of this Contract, and shall be submitted in accordance with Omnitrans accepted submittal schedule so as to not delay the performance of Work by the Contractor.

C. Contractor shall not perform Work on the Work Site for this Contract or any work order thereunder, until Omnitrans has returned the submittals marked "No Exceptions Taken." Omnitrans refusal to issue permission to perform Work on the Work Site, due to the Contractor's failure to submit listed safety submittals, or due to Omnitrans rejection of unacceptable submittals, shall not constitute a basis for any claim of delay, interference, disruption, or other similar types of claims.

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PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 SECURITY SERVICES AND EQUIPMENT

- A. The on-site security personnel shall not be utilized to provide, operate, or maintain Contractor's security at the Work Site during construction.
- B. Should the Contractor desire to utilize security guards, the Contractor shall select, provide, and retain a reputable uniformed armed security guard service. Security guards assigned by the Contractor or security Subcontractor shall be assigned to only Project Work Sites for patrol and other security related activities.
- C. Security guards shall be equipped with cell phones to enhance their ability to report incidents in a timely manner and allow direct contact with emergency communications dispatchers.
- D. Security guards shall be provided with all necessary personnel protective equipment (PPE).

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 57 19
TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

The Work specified in this Section consists of eliminating or minimizing air, water, and noise pollution generated by construction activities, and of complying with all legal requirements applicable to any construction generated hazardous wastes, including preparation and implementation of Storm Water Pollution Prevention Plan (SWPPP).

1.2 RELATED REQUIREMENTS

- A. Section 01 35 23 - Site Safety Requirements.
- B. Section 01 35 44 - Environmental Safety and Health Program.
- C. Section 01 74 19 - Construction Waste Management and Disposal.
- D. Section 01 50 00 - Temporary Facilities and Controls.

1.3 REGULATIONS

- A. Contractor shall comply with all pertinent regulations including the following:
 - 1. State of California requirements relating to Air Resources Board (CARB), Code of Regulations (CCR), Health and Safety Code (CHSC), Regional Water Quality Control Board, and the Water Resources Control Board (SWRCB).
 - 2. Asbestos containing materials (ACM), as defined in section 1529, "Asbestos," of the Construction Safety Orders, Title 8, of the California Code of Regulations are /suspected to be present in the structure proposed for demolition or renovation.
 - a. California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control.
 - b. California Code of Regulations, Title 8, General Industry Safety Order 5208 Asbestos.
 - c. California Code of Regulations, Title 8, Section 341
 - d. California Code of Regulations, Title 22, Division 4.5

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- e. Occupational Safety and Health Administration, Part 26 (amended), of Title 29 of the Code of Federal Regulations.
3. Code of Federal Regulations (CFR), Title 40, Part 61, subpart M.
4. National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002 and amendments as adopted by SWRCB.
5. The Federal Occupational Safety and Health Act (OSHA) and the California Occupational Safety and Health Act (CAL/OSHA).
6. South Coast Air Quality Management District (SCAQMD).

1.4 SUBMITTALS

A. Contractor shall prepare and submit the following:

1. Certificates that materials provided comply with Standard Specifications for Public Works Construction.
2. The Contractor's Construction Waste Management Plan (CWMP) is required within 30 calendar days after the effective date of NTP with required documents to properly govern the Contractor Generated Hazardous Wastes in accordance with Title 22, Division 4.5, CCR, and all other applicable laws and regulations. Omnitrans or its designee will have the right to review, modify, and approve the CWMP, and to provide quality assurance monitoring of Contractor's implementation of this Plan.
3. SWPPP as required under the Clean Water Act and related federal and state laws and regulations is required within 30 calendar days of effective date of NTP. Omnitrans or its designee will have the right to review, modify, and approve this SWPPP, and to provide quality assurance monitoring of the Contractor's implementation of this Plan.

NOTE: Contractor shall be required to have a Qualified SWPPP (QSD) prepare this plan. Contractor shall also implement this plan and provide a Qualified SWPPP Practitioner (QSP) for the duration of this project. Omnitrans will designate an Authorized Representative of the Legally Responsible Person (LRP) and will also provide a Data Submitter for uploading information into the SMARTS system.

4. Contractor shall prepare permit applications and obtain permits not provided by Omnitrans as necessary for performance of the Work under this Contract including, but not limited to:

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- a. Excavation dewatering and discharge of water and runoff into existing drainage systems or surface waters.
- b. Disposal of debris and soils.
- c. Disposal of track and related material.
- d. All other activities with potential to adversely affect the environment.
- e. Written permission from the property owner for right-of-entry work that requires entering private property.
- f. Submit copies of permit applications and permits to Omnitrans.

PART 2 - PRODUCTS - (NOT APPLICABLE TO THIS SECTION)

PART 3 - EXECUTION

3.1 AIR POLLUTION CONTROLS

- A. Contractor shall comply with all requirements for controlling fugitive dust including specific impact mitigation measures contained in the latest version of the South Coast Air Quality Management District (SCAQMD) Rules and Regulations that include minimum procedures and techniques:
 1. Cover loads of materials, debris, and soil transported from Work Sites. Trim or remove loose material from loads before leaving the Project. Do not cause or allow emissions of fugitive dust to remain visible in atmosphere beyond the property line of the emission source.
 2. Daily or more frequently, if necessary, water down and sweep adjacent streets and sidewalks that have heavy volumes of construction vehicles carrying debris and excavated materials.
 3. Establish regular cycles and locations for cleaning trucks that haul soil from Work Site.
 4. Comply with dust control requirements identified in Section 01 50 00 - Temporary Facilities and Controls and water down Work Sites as required for suppressing dust, during handling of excavation soil or debris, or during demolition.
 5. If conveyors are used, cover all transfer points along the conveyor system that is moving soil. Minimize the drop height to the stockpile. Provide a sprinkler system that will apply water to soil before it drops to stockpile.

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6. Any adapted measures developed by SCAQMD on Best Available Control Measures (BACM) for Fugitive Dust and Rule 403 will be incorporated into the Work Site operations for Fugitive Dust Control.
- B. Burning of wastes is prohibited. Remove scrap and waste material and dispose of it in accordance with laws, codes, regulations, ordinances and permits.
- C. Use construction equipment designed and equipped to prevent or control air pollution in conformance with the most restrictive regulations of the EPA, state, and local authorities. Maintain evidence of such design and equipment and make it available for inspection by Omnitrans or its designee.
- D. Establish and maintain records of the routine maintenance program for internal combustion engine powered vehicles and equipment used on the Project. Keep records available for inspection by Omnitrans or its designee.
- E. During excavation, gases may be released from soil and from underground reservoirs. Gases may contain methane, other more complex hydrocarbons, or hydrogen sulfide, and may present hazards due to flammability or toxicity. Safety during construction is required by regulations of OSHA and CAL/OSHA. Although the composition, quantity, and concentration of gases that might be released are unknown, release of gases into the atmosphere may be subject to control by SCAQMD and the California Air Resources Board (CARB). Omnitrans will coordinate this issue with SCAQMD and CARB and will inform the Contractor of further required actions.
- F. In accordance with all regulations, perform a survey for asbestos containing materials and notify regulatory agencies including SCAQMD prior to renovation or demolition of any facility. Notify regulatory agencies prior to commencing Work on bridges or structures. Provide a copy of all notices to Omnitrans.
- G. Prevent or immediately remove “track-out” of material or dust onto public paved roadways. Daily or more frequently, if necessary, water down and sweep streets which have construction vehicles carrying debris and excavated materials and adjacent sidewalks to remove deposited materials.

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3.2 WATER POLLUTION CONTROLS

- A. Omnitrans shall solely determine whether discharged storm water will be discharged to the storm drain system. The Contractor shall treat storm water, including storm runoff that is pumped from excavations and other water encountered during operations; remove suspended particles, pollutants, and hydrocarbons through settling basins or hydrocarbon separators in order to comply with Omnitrans direction and regulatory criteria for pollutants in water set by state and local water agencies.
- B. Contractor shall monitor storm water discharge to ensure it meets standards set by appropriate laws, codes, regulations, ordinances and permits. Retain records of measurements for inspection by Omnitrans or its designee. Perform daily monitoring of storm water discharges and record daily discharged quantities according to NPDES permit guidelines. Submit certified monthly reports not later than seven days after the end of the month.
- C. Contractor is responsible for preventing or mitigating potential chemical releases, erosions and sedimentation impacts associated with storm water runoff.
- D. Contractor shall provide copies of the approved SWPPP to its Subcontractors and shall keep a copy available onsite at the project office. The Contractor shall provide amendments to the SWPPP whenever there is a change in construction, operations, or where storm water runoff conditions which may affect the discharge of significant quantities of pollutants to surface waters, groundwater, or separate municipal storm sewer systems.
- E. A Omnitrans approved SWPPP does not relieve the Contractor or its Subcontractors of their responsibilities to comply with other state, county, and local governmental requirements, including those for storm water management or non-point source runoff controls.

3.3 SOLID AND HAZARDOUS WASTE CONTROLS

- A. This Section applies to the Contractor Generated Hazardous Waste.
- B. Contractor is responsible for, and shall indemnify, defend, and hold Omnitrans harmless against any costs (including attorney's fees and costs), demands, claims, damages, losses, delay costs (collectively, "Claims") arising from or associated with the management, abatement, removal, remediation, clean-up, transport, reuse, recycling, storage, and disposal of any Contractor Generated Hazardous Waste, or associated with any noncompliance with the Contractor Generated Waste Management Plan.

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- C. In the event that the Contractor or Omnitrans reasonably suspects that the Contractor has generated, released, or discharged the Contractor Generated Hazardous Waste, the Contractor is to bear all costs of sampling and monitoring tests and other investigations to determine whether said waste is Solid Waste or Hazardous Waste in accordance with all federal, state and local requirements, including, without limitation, RCRA and Title 22, CCR Chapter 30, Article II (as amended, modified, or replaced from time to time). Omnitrans reserves the right (but not the obligation) to perform its own physical and chemical analyses and tests on suspected Contractor Generated Hazardous Waste. The Contractor shall furnish samples, at the Contractor's cost, as directed by Omnitrans.
- D. Contractor shall be responsible for the management, abatement, removal, remediation, clean-up, transport, reuse, recycling, storage, and disposal of the Contractor Generated Hazardous Waste in accordance with laws, rules, regulations, and orders, including, without limitation, Title 22, Chapter 30 et seq., California Code of Regulations, California Health and Safety Code Section 25100 et seq., Titles 23 and 26, California Code of Regulations, and regulations of the waste disposal facility to be used. Haul routes for transporting solid or hazardous wastes are subject to the approval of local jurisdictions, or other regulatory agencies.

PART 4 - MEASUREMENT AND PAYMENT

- A. The measurement and payment for mobilization, maintenance, utilization, and demobilization of required facilities, personnel, materials and equipment under this Section shall be identified and paid as a lump sum, in accordance with the Mobilization and Demobilization contract items established in the Bid Item List, unless SWPPP Best Management Practices Implementation contract item is established in the Bid Item List.
- B. All other Work of this Section is considered incidental to Work under other contract items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements relating to selection of products, materials and equipment for the Work and their delivery, storage, and handling.

1.2 RELATED REQUIREMENTS

- A. Section 00 26 00 - Substitution Procedures.
- B. Section 01 78 36 - Warranties and Guarantees.
- C. Divisions 02 through 32 Sections for specific requirements relating to products and installations.

1.3 SAFETY DATA SHEETS

- A. The Safety Data Sheet (SDS) is prepared by manufacturers and suppliers of products that contain hazardous materials. Hazardous material is defined as any substance which is a physical, or health hazard, or is included in the Cal-OSHA Director's List of Hazardous Substances, or is listed in Title 22 of the California Code of Regulations, Section 12000, Chemicals Known to the State to Cause Cancer or Reproductive Toxicity (Proposition 65 Substances).
- B. No hazardous materials shall be delivered, stored, or used at any work site or facility unless they are properly labeled, tagged or marked, and a copy of the MSDS has been provided to Omnitrans. A copy of any updated MSDSs shall be provided to Omnitrans immediately.
- C. Contractor shall also maintain a file of relevant MSDSs at the work site. MSDS files shall be kept current; new or updated MSDSs shall be added immediately and a copy provided to Omnitrans.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and, unless otherwise indicated, that are new at time of installation.

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1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete functional installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Omnitrans reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Omnitrans will make the selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
6. Or Equivalent: Where products are specified by name and accompanied by the term "or equivalent" or "or approved equivalent" or "or approved," comply with provisions in Section 01 33 00 - Submittal Procedures to obtain approval for use of an unnamed product.

B. Product Selection Procedures:

1. Product: Where the Specifications name a single product and manufacturer, provide the named product that complies with requirements. Where the Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
2. Where the Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements. Where the Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
3. Basis of Design Product: Where the Specifications name a product and include a list of manufacturers, provide the specified product or a comparable product by one of the other named manufacturers. The Plans and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in Section 01 25 00 - Substitution Procedures for consideration of an unnamed product by the other named manufacturers.

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4. Visual Matching Specification: Where the Specifications require matching an established sample, select a product that complies with requirements and matches Omnitrans' sample. Omnitrans' decision will be final on whether a proposed product matches.
5. If no product available within the specified category matches and complies with other specified requirements, comply with provisions in Section 00 26 00 - Substitution Procedures for proposal of a product.

2.2 LISTING OF ELECTRICAL EQUIPMENT

- A. It is the Contractor's responsibility to ensure that electrical equipment, machinery control panels and electrical components, and field installed devices and components will meet the all applicable codes and regulations of both the local authority and the State of California, for "listing" of electrical equipment by an accredited laboratory. Applicable provisions of all Underwriter's Laboratory standards, as incorporated under the laws within the State of California, shall apply to the work of this project, except as modified herein, and are hereby made a part of the Specifications to the extent required.
- B. The UL listing is acceptable; however, other certifications must be checked for acceptance under the applicable laws and regulations of the State of California and approved by Omnitrans prior to equipment purchase. Custom built control panels and systems, wherein listing has not been established prior to manufacture, will be accepted only if they are built under the UL self-certification labeling procedures. Compliance with, the costs of, and any scheduling impacts associated with the laws, codes and regulations of the state and local jurisdictions are the responsibility of the Contractor and its suppliers.

PART 3 - EXECUTION

3.1 PRODUCT DELIVERY, UNLOADING, STORAGE, AND HANDLING

- A. Contractor shall, at its own expense, deliver, unload, store, handle, and be responsible for all materials, whether furnished by Omnitrans or by the Contractor. All Omnitrans furnished material, whether unloaded by Omnitrans or by the Contractor, shall be moved by the Contractor, at its expense, from the point where it is delivered by Omnitrans to the Work Site.
- B. Deliver: Unload, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions. The unloading, storing and hauling of all Omnitrans' or the Contractor's material shall be considered as incidental to Contract pricing.

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C. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at the Work Site, and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation times to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to the Work Site in an undamaged condition in the manufacturer's original, sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.

D. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units. Store products with seals and labels intact and legible.
2. Store materials in a manner that will not endanger any structures. Materials shall not be placed nor stored within 20 feet of the centerline of any active railroad track.
3. Comply with the product manufacturer's written instructions regarding temperature, humidity, ventilation, and weather-protection requirements for storage.
4. Store loose granular materials on solid flat surfaces in a well drained area. Prevent mixing with foreign matter.
5. Store cementitious products and materials on elevated platforms.
6. Store foam plastic away from exposure to sunlight, except to the extent necessary for a period of installation and concealment.
7. Protect stored products from damage and liquids from freezing.
8. Building materials will be stored in a protected environment safe from sun, rain, and excessive dust. Damaged or excessively dirty materials will be rejected.
9. Electrical and mechanical equipment shall be maintained in accordance with the manufacturer's operation and maintenance instructions until the Contractor is relieved of the responsibility by Omnitrans.

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10. When permission to do so is given in writing by Omnitrans, the Contractor may store materials and erect temporary buildings on Omnitrans property, provided such property is not required for Omnitrans' use or is not under lease to other parties.

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 71 23
FIELD ENGINEERING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section describes the Contractor's and Omnitrans' respective responsibilities for field engineering services, including general procedural requirements for field engineering and surveying for the Work.
1. Field Engineering includes but is not limited to establishing and maintaining baselines, design lines, grades and field control points as required for construction layout survey. The Work of this Section also includes field survey of existing and new grades to verify final layout and other structures indicated on the Plans.
 2. Contractor will have its surveyor furnish construction control and survey lines and grades as requested by the contractor and as determined by Omnitrans' Resident Engineer to be reasonable and necessary to complete the Project.
 3. Contractor shall provide grade checker personnel on site for all earthwork, grading, and other work activities to set working grades for their equipment and devices used to perform the Work. The Contractor may also elect to set supplemental working stakes at his sole discretion and own expense. Omnitrans' surveyor may or may not verify any supplemental staking.

1.2 RELATED REQUIREMENTS

- A. Section 01 77 19 – Project Closeout.
- B. Section 01 78 39 – Project Record Documents.

1.3 SUBMITTALS

- A. Request for Construction Staking: Use the form provided at the end of this Section of the Specifications to request permission from Omnitrans to allow staking.

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1.4 QUALITY CONTROL

- A. If during the course of performing the Work, the Contractor believes there is an apparent discrepancy with the line and grade controls established by Omnitrans, the Contractor shall notify Omnitrans prior to proceeding with the Contractor's work. This notification shall be timely to avoid impacting scheduled work progress.
- B. The Contractor's project schedule shall allow sufficient time, but no less than two working days, for Omnitrans to complete the requested survey work tasks.

PART 2 - PRODUCTS (NOT APPLICABLE TO THIS SECTION)

PART 3 - EXECUTION

3.1 REQUESTS AND NOTIFICATIONS

- A. Refer to subsection 1.3 A. for requests for construction staking, using appropriate form and submission procedure.
- B. At minimum, two working days of advanced notice is required to Omnitrans before survey services can be rendered. Any requested notice received by Omnitrans in less than two working days will result in rejection of the Contractor's request or notice without action taken.
- C. If Omnitrans determines that the area or facility subject to staking is not satisfactorily prepared, Omnitrans will immediately return to Contractor the request for staking. A new request for staking may be resubmitted when the area or facility has been properly prepared.

3.2 SURVEY REFERENCE POINTS

- A. The Contractor is responsible to locate and protect survey controls, survey monuments and reference points and preserve permanent reference points during construction.
- B. Contractor shall report to Omnitrans the loss or destruction of any reference points or relocation required because of changes in grades or other reasons.

3.3 FIELD ENGINEERING (CONTRACTOR PERFORMED)

- A. Identification: Contractor will identify existing benchmarks, control points, and property corners. Control datum for the survey shall be indicated on the Plans.

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- B. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on the Work Site, referenced to data established by survey control points. Comply with authorities having jurisdiction for the type and size of benchmark.
- C. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
- D. Surveyor shall establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of the Project.
- E. Staking will be placed at industry standard frequency for type of staking required (typically 50 feet along tangents and 25 feet along curves). A corresponding cut or fill to finished grade (or flow-line) will be indicated on a grade sheet in connection with the laying out of any portion of the Work.
- F. Provide surveying for utilities up to the point of building connection as shown in the Plans. Includes centerline offset, angle points, centerline of structures (manholes, catch basins, etc.), and inverts.
- G. Provide surveying for grading, baseline offsets, cut fills, grade breaks, hinge points and other points.
- H. Provide surveying for substructures and underground work located outside building footprint.
- I. Record Log: Maintain a log of layout control work. Record any deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference to Omnitrans.

3.4 CONSTRUCTION LAYOUT (CONTRACTOR RESPONSIBILITY)

- A. Contractor shall dig all holes as necessary for setting line and grade stakes.
- B. Before proceeding with the Work, the Contractor shall verify that layout information provided by Omnitrans is consistent with that shown in the Plans. If discrepancies are encountered, the Contractor shall notify Omnitrans immediately.
- C. Contractor shall provide a grade checker to set working grades for their equipment and other devices.
- D. Contractor shall become familiar with the location of existing permanent benchmarks, control points, and similar reference points before beginning the Work and preserve and protect permanent benchmarks and control points during construction operations.

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- E. Contractor shall not change or relocate existing benchmarks or control points without prior written approval of Omnitrans. Report the need to relocate permanent benchmarks or control points to Omnitrans before proceeding.
- F. Contractor shall report lost or destroyed permanent benchmarks or control points immediately.
- G. Contractor shall not disturb any survey monuments that control the location of subdivisions, tracts, boundaries, roads, streets, or highways, or provide horizontal and/or vertical survey control without the written consent of Omnitrans.
- H. Contractor shall bear the expense of replacing any monuments that may be disturbed without permission. Replacement shall be performed only under the supervision of Omnitrans and the direction of a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying in California.
- I. Marks or stakes are to be used within a reasonable amount of time to prevent exposure to deterioration or destruction. Take proper precautions to prevent disturbance or damage to marks or stakes. In case such marks or stakes are damaged or destroyed they will be replaced at Omnitrans discretion. Remarking, re-staking, or rechecking of survey will be charged to the Contractor and deducted from the next progress payment.
- J. Contractor shall remove temporary reference points when no longer needed and restore marked construction to its original condition.

PART 4 - MEASUREMENT AND PAYMENT

- A. Work in this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF TEXT

(SEE CONSTRUCTION STAKING FORM ON NEXT PAGE)

PARSONS BRINCKERHOFF

TX 174906-A-EnvironWasteFac21-VISIT-FileNo1m174906 REQUEST CONST STARTING.DOC

San Bernardino Transit Center Generator Modification Project

Omnitrans

San Bernardino Transit Center Generator Modification

FIELD ENGINEERING

01 71 23 - 5

City of San Bernardino

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SECTION 01 74 19
CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for salvaging nonhazardous demolition and construction waste, recycling nonhazardous demolition waste and disposing of nonhazardous demolition and construction waste.
- B. The Owner has established that this Project shall include proactive measures for waste management participation by all parties to the contract.
- C. The purpose of this program is to ensure that during the course of the Project all diligent means are employed to pursue practical and economically feasible waste management and recycling options.
- A. Upon award, Contractor and Subcontractors shall be required to furnish documentation from suppliers or manufacturers regarding waste management and recycling options for those products and procedures furnished. Waste disposal to landfills shall be minimized.

1.2 RELATED REQUIREMENTS

- A. Section 01 57 19 - Temporary Environmental Controls.
- B. Divisions 02 through 32 Sections for specific requirements relating to disposition of waste resulting from the Work including but not limited to disposition of waste resulting from site clearing and removal of above and below-grade improvements.

1.3 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Construction Waste Management Plan (CWMP): A Project-specific plan for the collection, transportation, and disposal of the waste generated at the construction site.
- C. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.

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- D. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- E. Hazardous waste: Any material or byproduct of construction that is regulated by the Environmental Protection Agency and that may not be disposed in any landfill or other waste end-source without adherence to applicable laws.
- F. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- G. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- H. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.
- I. Trash: Any product or material unable to be returned, reused, recycled or salvaged.
- J. Waste: Any material that has reached the end of its intended use. Waste includes salvageable, returnable, recyclable and reusable construction materials that would otherwise be discarded or destroyed.

1.4 PERFORMANCE REQUIREMENTS

- A. Facilitate recycling and salvage of materials to achieve maximum rates for salvage/recycling by weight of total non-hazardous solid waste generated. Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators.
 - 1. CWMP Goal: Develop plan that results in end-of-Project rates for salvage/recycling of a minimum of 75 percent by weight of total waste generated by the Work.
- B. Packaging: Regardless of salvage/recycle goal indicated above, salvage or recycle 100 percent of the following uncontaminated packaging materials, including paper, cardboard, plastic, polystyrene packaging and wood crates.

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1.5 SUBMITTALS

- A. Within 30 calendar days of NTP, submit a CWMP, according to ASTM E 1609, the requirements of the jurisdiction having authority, and requirements in this Section. Distinguish between demolition and construction waste. Indicate quantities by weight or volume, but use the same units of measure throughout the waste management plan. List each type of waste and whether it will be salvaged, recycled, or disposed of in a landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
- B. Project Information:
1. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit copies of report. Include separate report for demolition and construction waste. Include the following information:
 - a. Material category.
 - b. Total quantity of waste in tons.
 2. Quantity of waste salvaged, both estimated and actual in tons.
 - a. Quantity of waste recycled, both estimated and actual in tons.
 - b. Total quantity of waste recovered (salvaged plus recycled) in tons.
 - c. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
 3. Waste Reduction Calculations: Before request for Substantial Completion, submit copies of calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.
 4. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
 5. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
 6. Recycling and Processing Facility Records: Indicate receipt and acceptance of waste by landfills and Waste to Energy facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

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7. Landfill and Waste to Energy Disposal Records: Indicate receipt and acceptance of waste by landfills and Waste to Energy or facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

1.6 QUALITY ASSURANCE

- A. Waste Management Coordinator Qualifications: Experienced firm, with record of successful waste management coordination of projects with similar requirements, that employs a LEED Accredited Professional, certified by USGBC as Contractor's Waste Management Coordinator (CWMC).
- B. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.
- C. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
- D. Waste Management Conference: Project Manager shall conduct conference at Project site to review methods and procedures related to waste management including but not limited to, the following:
 1. Review and discuss Waste Management Plan.
 2. Review requirements for documenting quantities of each type of waste and its disposition.
 3. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
 4. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
 5. Review waste management requirements for each trade.

1.7 CONSTRUCTION WASTE MANAGEMENT PLAN

- A. General: Develop plan consisting of waste identification, waste reduction work plan, and cost/revenue analysis. Include separate sections in plan for construction waste. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.
- B. Waste Identification: Indicate anticipated types and quantities of construction waste generated by the Work. Include estimated quantities and assumptions for estimates.

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- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed in landfill or Waste to Energy facilities. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
 2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone number.
 3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
 4. Recycled Materials: Assign recycling to recycling subcontractor, or list local receivers and processors, and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
 5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and Waste to Energy facility. List hazardous material waste and disposal separately.
 6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.
- D. Waste Management Plan shall include locations of sorting and waste storage facilities on Site Plan of project.

PART 2 - PRODUCTS - (NOT APPLICABLE TO THIS SECTION)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement waste management plan as approved by Omnitrans. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract. Comply with the following procedures:

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1. Define specific areas to facilitate separation of materials for recycling, salvage, reuse or return.
 2. Separate construction waste by type to the maximum extent practical.
 3. Recycle and waste bin areas are to be maintained in an orderly manner and clearly marked to avoid contamination of materials. Inspect containers and bins weekly for contamination and remove contaminated materials if found.
 4. Do not mix recyclable materials.
 5. Stockpile processed materials on site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 6. Store materials away from construction area. Do not store within drip line of remaining trees.
 7. Store components off the ground and protect from weather.
 8. Remove construction waste off-site and transport to appropriate receiver or processor.
 9. Provide handling, containers, storage, signage, transportation, and other items as required to implement the CWMP for the entire duration of the Contract.
- B. Waste Management Coordinator: Designate a CWMC to be responsible for implementing, monitoring, and reporting status of the CWMP.
- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.
1. Distribute waste management plan to everyone concerned within seven days of submittal return.
 2. Distribute waste management plan to entities when they first begin work on site. Review plan procedures and locations established for salvage, recycling, and disposal.
- D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

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1. Designate and label specific areas on Project site necessary for separating materials that are to salvaged, recycled, reused, donated, and sold.
 2. Comply with environmental controls specified in Division 01 Section 01 50 00 Temporary Facilities, Construction Controls and Facilities.
- E. Hazardous Wastes: Store in secure areas and comply with the following:
1. Hazardous wastes shall be separated, stored and disposed of in accordance with local and EPA regulations and additional criteria listed below:
 - a. Building products manufactured with PVC or containing chlorinated compounds shall not be incinerated.
 - b. Disposal of fluorescent tubes and ballasts to open containers is not permitted.
 - c. Disposal of building elements containing mercury to open containers is not permitted.
 2. Unused fertilizers shall not be co-mingled with construction waste.
- F. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities. Designate specific areas on the Work Site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
- G. "Waste Reduction Progress Reports: Submit each month as part of the Contractor's Application For Payment.
1. Materials identified in the Report shall be reported by weight.
 2. Where weight is not applicable, Contractor shall report materials by units applicable to material recipient.
 3. Procure receipts or other validation of waste management procedures and include them as part of the submittal.

3.2 SALVAGING DEMOLITION WASTE

- A. Salvaged items for reuse in the Work: Salvage designated items for reuse and handle as follows:
1. Clean salvaged items.

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2. Pack or crate items after cleaning.
 3. Identify contents of containers.
 4. Store items in a secured area until reinstallation.
 5. Protect items from damage during transport and storage.
- B. Salvaged items for sale and donation: None
- C. Salvaged items for Omnitrans use: As directed by Omnitrans.

3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to the benefit of Omnitrans.
- C. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
- D. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at the Work Site to the maximum extent practical, according to the approved construction waste management plan.
1. Provide appropriately marked containers or bins for controlling recyclable waste until removed from the Work Site. Include a list of acceptable and unacceptable materials at each container and bin.
 - a. Inspect containers and bins for contamination and remove contaminated materials (if found).
 2. Stockpile processed materials on site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 3. Stockpile materials away from the construction area. Do not store within the drip line of remaining trees.
 4. Store components off the ground, and protect them from the weather.
 5. Remove recyclable waste from Omnitrans property and transport to a recycling receiver or processor.
- E. Asphaltic Concrete Paving: Grind asphalt to maximum 4" particle size.

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- F. Concrete: Remove reinforcement and other metals from concrete and sort with other metals. Pulverize concrete to a maximum 4" particle size.
- G. Wood Materials: Sort and stack materials according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.
- H. Metals: Separate metals by type.
 - 1. Reinforcing Steel: Separate from concrete.
 - 2. Structural Steel: Stack materials according to size, type, and length.
 - 3. Miscellaneous Metals: Remove and dispose of bolts, nuts, washers, and other rough hardware.
- I. Asphalt Shingle Roofing: Separate organic and glass-fibers shingles and felts. Remove and dispose of nails, staples, and accessories.
- J. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of screws and fasteners.
- K. Acoustical Ceiling Tile: Stack large clean pieces on wood pallets or in container and store in a dry location.
 - 1. Separate metal suspension system members including trim and other framing and sort with other metals.
- L. Carpet: Roll large pieces tightly after removing debris, trash, adhesive, and tack strips. Store clean dry carpet in a closed container or trailer.
- M. Piping and Conduit: Reduce materials to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.

3.4 RECYCLING AND CONSTRUCTION WASTE

A. Packaging:

- 1. Cardboard and Boxes: Break down packaging to flat sheets. Bundle and store in a dry location.
- 2. Polystyrene Packaging: Separate and bag materials.
- 3. Pallets: Require deliveries as much as possible using pallets to remove from project site. For pallets that remain onsite, break down pallets into component wood pieces and comply with requirements for recycling wood.

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4. Crates: Breakdown crates into component wood pieces and comply with requirements for recycling wood.
- B. Wood Materials:
1. Clean Cut-offs of Lumber: Grind or chip into small pieces.
 2. Clean Sawdust: Bag sawdust that does not contain paint or treated wood.
- C. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location.
1. Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.

3.5 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from the Work Site and legally dispose of them in a landfill or in another manner acceptable to authorities having jurisdiction.
1. Except as otherwise specified, do not allow waste materials that are to be disposed of to accumulate on site.
 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Remove waste materials offsite and legally dispose of them.

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 77 00
SUBSTANTIAL COMPLETION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section addresses administrative and procedural requirements for establishing Substantial Completion.

1.2 RELATED REQUIREMENTS

- A. Section 01 31 99 - Contract Time
- B. Section 01 77 19 - Project Closeout
- C. Section 01 78 23 - Operation and Maintenance Data
- D. Section 01 78 36 - Warranties and Guarantees
- E. Section 01 78 39 - Project Record Documents

1.3 SUBSTANTIAL COMPLETION SUBMITTALS

- A. Submit the following a minimum of 14 days prior to requesting inspection for determining the Date of Substantial Completion:
- 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction, all of which would grant unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 2. Submit closeout submittals specified in other Specifications Sections, including Project Record Documents, all material testing and special inspection results, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information, warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 3. Submit maintenance material submittals, specified in individual sections of these Specifications, including tools, spare parts, extra materials, and similar items, to be delivered to the location designated by Omnitrans.
 - 4. Submit requirements as indicated in Section 01 91 13 General Commissioning Requirements.

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1.4 SUBSTANTIAL COMPLETION PROCEDURES

A. Contractor shall complete the following prior to requesting inspection for determining the Date of Substantial Completion:

1. Provide a Final As-Built Schedule that is approved by Omnitrans.
2. Advise Omnitrans of pending insurance changeover requirements.
3. Make the final changeover of permanent locks and deliver keys to Omnitrans. Advise Omnitrans of the changeover in security provisions.
4. Complete the start-up and testing of systems and equipment.
5. Perform preventive maintenance on equipment used prior to Substantial Completion.
6. Instruct Omnitrans' personnel in the operation, adjustment, and maintenance of products, equipment, and systems.
7. Advise Omnitrans of the changeover in utilities.
8. Terminate and remove temporary facilities from the Work Site, along with mockups, construction tools, and similar elements.
9. Complete final cleaning requirements, including areas adjacent to the Work Site such as streets, curbs, gutters, swales and other drainage facilities.
10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
11. Deliver tools, spare parts, extra materials, and similar items to the location designated by Omnitrans. Label with manufacturer's name and model number where applicable.

B. Contractor shall submit a written request for inspection to determine Substantial Completion. On receipt of such request, Omnitrans will either proceed with the inspection or notify the Contractor of unfulfilled requirements. Omnitrans will prepare the Certificate of Substantial Completion after inspection or will notify the Contractor of outstanding items that must be completed or corrected before the certificate will be issued.

C. The Date of Substantial Completion is the date certified by Omnitrans when the Work is sufficiently complete, in accordance with the Contract Documents. At any time Omnitrans may occupy or use the Work, or a designated part or portion thereof, for the use for which it is intended. Omnitrans' possession or use shall not be deemed an acceptance of any Work under the Contract.

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1.5 BENEFICIAL OCCUPANCY

- A. Omnitrans shall have the right to take beneficial occupancy of any portion of the Work that is not otherwise complete. Omnitrans must at any time notify the Contractor in writing of its intention to take such beneficial occupancy.
- B. At the time of taking beneficial occupancy, the Contractor and Omnitrans shall make an inspection of that portion of the Work to determine status of completion and shall prepare a list of work items remaining to be completed.
- C. During beneficial occupancy, Omnitrans shall allow the Contractor reasonable access to complete or correct the remaining work items and to otherwise complete the Work. However, a failure by Omnitrans to list any remaining work item shall not relieve the Contractor of responsibility for complying with all terms of the Contract.
- D. While Omnitrans is in possession or early use of premises, the Contractor shall be relieved of responsibility for maintenance, loss, or damage to only that portion of work for which Omnitrans has taken beneficial occupancy other than that resulting from Contractor's act or omission, negligence, willful misconduct, or breach of warranty. If such possession or early use by Omnitrans unreasonably delays progress of the Work or causes additional expense to the Contractor, an adjustment may be made in accordance with the Contract Documents. Omnitrans' Possession or Early Use of Premises shall not be deemed an acceptance of any work under the Contract.

PART 2 - PRODUCTS

2.1 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide products, spare parts, maintenance and extra materials in quantities specified in Section 01 78 23 - Operation and Maintenance Data and individual Specification Sections.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and federal and local environmental and antipollution regulations.

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B. Cleaning Procedures: Complete the following cleaning operations before requesting inspection for Substantial Completion:

1. Clean the Work Site, yard, and grounds in areas disturbed by construction activities, including landscaped areas, making them clear of rubbish, waste material, litter, and other foreign substances.
2. Clean paved areas with street sweeper and water truck. Remove petrochemical spills, stains, and other foreign deposits.
3. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
4. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
5. Remove debris and surface dust from limited-access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
6. Sweep concrete floors broom-clean.
7. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to the manufacturer's recommendations if visible soil or stains remain.
8. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
9. Remove labels that are not permanent.
10. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
11. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
12. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
13. Clean ducts, blowers, and coils if units were operated without filters during construction, or if they display contamination with particulate matter on inspection.
14. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.

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15. Wash and wipe clean all appurtenances and exposed finished surfaces associated with passenger platform areas, walkways and approaches, including railings and fences.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to their specified condition.
- C. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
- D. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
- E. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
- F. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
- G. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 77 19
PROJECT CLOSEOUT

PART 1 - GENERAL

1.1 SUMMARY

This Section specifies procedures and requirements for close out, including but not limited to final submittals, final acceptance, all required financial and legal documentation, and release of final payment to the Contractor.

1.2 RELATED REQUIREMENTS

- A. Section 01 77 00 - Substantial Completion.
- B. Section 01 78 36 - Warranties and Guarantees.
- C. Section 01 78 39 - Project Record Documents.

1.3 FINAL COMPLETION SUBMITTALS

- A. Submit the following a minimum of 14 days prior to requesting inspection for determining the Date of Final Completion and Acceptance:
 - 1. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with Contract insurance requirements.
 - 2. Consent of the Surety to Final Payment
 - 3. All required Labor Compliance documents.
 - 4. Financial:
 - a. Final liquidated damages settlement statement, if applicable.
 - b. Application for Final Payment shall include the following documentation:
 - 1) Lien Releases from all Subcontractors, Suppliers and other vendors that have filed preliminary notice of liens.
 - 2) Certificate – “No Claims” all Subcontractors, Suppliers and other vendors that have filed preliminary notice of liens.
 - 3) Certificate from Contractor that all– Warranties and Guarantees are in Effect.

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5. Construction:

- a. Provide documentation of completed Punchlist items.
- b. Provide documentation of permit sign-off by third party agencies, as required and provide Certificates of Release from jurisdictional authorities.
- c. Final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of Substantial Completion (or when Omnitrans took possession of and assumed responsibility for corresponding elements of Work), if applicable.
- d. Certificate of Insurance: For continuing coverage if specified in Contract Documents.

1.4 ACCEPTANCE

- A. Omnitrans shall determine when the Work is fully completed and acceptable for purposes of contract close out. Contractor shall submit to Omnitrans a written Request for Acceptance of Work. After receipt of the Contractor's Request for Acceptance of Work, Omnitrans shall review all requirements of the Work and either: (1) reject the Contractor's Request for Acceptance of Work, specifying defective or uncompleted Work items, or (2) accept the Work as complete by issuing to the Contractor a Certificate of Final Acceptance and approving the final payment.
- B. If Omnitrans rejects the Contractor's Request for Acceptance of Work, the Contractor shall promptly remedy the defective or uncompleted Work items. Thereafter, the Contractor shall again give Omnitrans a written Request for Acceptance of Work. The foregoing procedure shall apply successively thereafter until Omnitrans has issued the Contractor a Certificate of Final Acceptance.
- C. Omnitrans requires that all Punchlist items be completed prior to Final Acceptance. If Omnitrans determines that any of the Punchlist items have not been satisfactorily completed, Omnitrans reserves the right to engage other contractors to complete such Punchlist items at the expense of the Contractor.

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PART 2 - PRODUCTS - (NOT APPLICABLE TO THIS SECTION)

PART 3 - EXECUTION - (NOT APPLICABLE TO THIS SECTION)

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 78 23
OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
1. Operation and maintenance documentation directory
 2. Emergency manuals
 3. Operation manuals for systems, subsystems, and equipment
 4. Product maintenance manuals
 5. Systems and equipment maintenance manuals

1.2 RELATED REQUIREMENTS

- A. Section 01 33 00 - Submittal Procedures.
- B. Section 01 79 00 - Demonstration and Training.
- C. Section 01 91 13 - General Commissioning Requirements.

1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual Specification Sections to be reviewed at the time of Section submittals. Submit reviewed manual content, formatted and organized as required by this Section.
1. Omnitrans will approve the contents of operations and maintenance submittals.
 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.

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- B. Format: Submit operations and maintenance manuals in the following format:
1. PDF electronic file: Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Omnitrans.
 2. Name each indexed document file in the composite electronic index with the applicable item name. Include a complete, electronically linked operation and maintenance directory. Enable inserted reviewer comments on draft submittals.
 3. Submit six paper copies and include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves. Omnitrans will return three copies.
- C. Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion, and at least 21 days before commencing demonstrations and training.

1.5 QUALITY ASSURANCE

In preparation of operation and maintenance data, use personnel thoroughly trained and experienced in the operation and maintenance of the equipment or systems involved. Where manuals require written instructions, provide technical writing that clearly communicates essential data. Where maintenance manuals require Plans or diagrams, prepare Plans clearly, in an understandable format. Where operation and maintenance documentation includes information on installations by more than one factory-authorized service representative, assemble and coordinate information furnished by those representatives and prepare manuals.

PART 2 - PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Directory: Prepare a single, comprehensive directory of emergency, operation, and maintenance data and materials, listing items and their location to facilitate ready access to desired information. Include a section in the directory for each of the following:
1. List of documents
 2. List of systems
 3. List of equipment
 4. Table of contents

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- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment that are not part of a system, list alphabetically in a separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with the same designation used in the Contract Documents.

2.2 OPERATION AND MAINTENANCE MANUAL FORMAT

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page
 - 2. Table of contents
 - 3. Manual contents
- B. Title Page: Include the following information:
 - 1. Subject matter included in manual
 - 2. Name and address of the Project
 - 3. Name and address of Omnitrans
 - 4. Date of submittal.
 - 5. Name and contact information for the Contractor
 - 6. Name and contact information for Omnitrans
 - 7. Names and contact information for major consultants to the Engineer that designed the systems contained in the manuals.
 - 8. Cross-reference to related systems in other operation and maintenance manuals.

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- C. Table of Contents: List each product included in the manual, identified by product name, indexed to the content of the volume, and cross-referenced to the Specification Section number in the Project manual.
- D. If operation or maintenance documentation requires more than one volume to accommodate data, include a comprehensive table of contents for all volumes in each volume of the set.
- E. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- F. Manuals, Electronic Files: Submit manuals in the form of a multiple-file composite electronic PDF file for each manual type required.
 - 1. Electronic Files: Use electronic files prepared by the manufacturer where available. Where scanning of paper documents is required, configure the scanned file for minimum readable file size.
 - 2. File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in the manual directory and the table of contents. Group documents for each system and subsystem into individual composite bookmarked files. Then create a composite manual so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure the electronic manual to display the bookmark panel upon opening the file.
- G. Manuals, Paper Copy: Submit manuals in the form of hard-copy, bound, and labeled volumes.
- H. Binders: Use heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in the thickness necessary to accommodate the contents; sized to hold 8-1/2 x 11 IN paper; with a clear plastic sleeve on the spine to hold a label describing the contents; and with pockets inside the covers to hold folded oversize sheets.
 - 1. If two or more binders are necessary to accommodate data for a system, organize the data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for the proper operation or maintenance of the equipment or system.

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2. Identify each binder on its front and spine with a printed title ("OPERATION AND MAINTENANCE MANUAL"), Project title or name, and subject matter of contents, and indicate the Specification Section number on the bottom of the spine. Indicate the volume number for multiple-volume sets.
- I. Dividers: Use heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate its contents. Include a typed list of products and major components of equipment included in the section on each divider, cross-referenced to the Specification Section number and the title of the Project manual.
- J. Protective Plastic Sleeves: Use transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
- K. Supplementary Text: Prepared on 8-1/2 x 11 IN white bond paper.
- L. Plans: Attach reinforced, punched binder tabs on plans, and bind them with text.
 1. If oversize Plans are necessary, fold Plans to the same size as text pages and attach them as foldouts.
 2. If Plans are too large to be used as foldouts, fold and place Plans in labeled envelopes and bind envelopes in the rear of the manual. At appropriate locations in the manual, insert typewritten pages indicating plan titles, descriptions of contents, and Plan locations.
 3. Provide specially prepared Plans where necessary to supplement the manufacturer's printed data to illustrate the relationship of component parts of equipment or systems, or to provide control or flow diagrams. Coordinate specially prepared Plans with information contained in the Project Record Documents to ensure correct representation of completed installations.
- M. Originals: Do not use original record documents as part of operation and maintenance manuals.
- N. Specifications: Component or system Specification Sections that are copied and inserted should be complete, with all modifications.

2.3 OPERATION AND MAINTENANCE MANUAL CONTENT

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections, as well as the following specific information:

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1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on the Contract Documents.
 2. Performance and design criteria if the Contractor has delegated design responsibility.
 3. Operating standards
 4. Operating procedures
 5. Operating logs
 6. Wiring diagrams
 7. Control diagrams
 8. Piped system diagrams
 9. Precautions against improper use
 10. License requirements, including inspection and renewal dates.
- B. Descriptions: Include the following:
1. Product name and model number. Use designations for products indicated on the Contract Documents. Include manufacturer's name, equipment identification, with the serial number of each component.
 2. Equipment function, operating characteristics and limiting conditions
 3. Performance curves, Engineering data and tests
 4. Complete nomenclature and number of replacement parts
- C. Operating Procedures: Include the following, as applicable:
1. Start-up procedures
 2. Equipment or system break-in procedures
 3. Routine and normal operating instructions
 4. Regulation and control procedures
 5. Instructions on stopping
 6. Normal shutdown instructions
 7. Seasonal and weekend operating instructions
 8. Required sequences for electric or electronic systems
 9. Special operating instructions and procedures
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram the controls as installed.

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- E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.
- F. Abbreviated Operating Instructions: Abbreviated instructions for start-up, shut-down, emergency operation, safety precautions, unusual features, and troubleshooting instructions. In addition to including a copy in the Operation and Maintenance Manual, permanently secure a laminated copy adjacent to the equipment, where the copy can be easily read by operating personnel.
- G. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include the responsibilities of Omnitrans' operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- H. Emergency Procedures: Include the following, as applicable:
 - 1. Instructions on stopping.
 - 2. Shutdown instructions for each type of emergency.
 - 3. Operating instructions for conditions outside normal operating limits.
 - 4. Required sequences for electric or electronic systems.
 - 5. Special operating instructions and procedures.

2.4 PRODUCT MAINTENANCE MANUAL CONTENT

- A. Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. List each product included in the manual, identified by product name and arranged to match the manual's table of contents. For each product, list the name, address, and telephone number of the Installer or supplier and the maintenance service agent, and cross-reference the Specification Section number and title in the Project manual and Drawing or schedule designation or identifier (where applicable). Data may be taken directly from manufacturer's standard catalogs. Information shall be edited or marked to show only conditions pertinent to this Contract. This information shall also be scanned in .tif or .pdf format at a suitable resolution so that it is legible when printed.
- C. Product Information: Include the following, as applicable:
 - 1. Product name and model number

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2. Manufacturer's name
 3. Color, pattern, and texture
 4. Material and chemical composition
 5. Reordering information for specially manufactured products
- D. Maintenance Procedures: Include the manufacturer's written recommendations, as well as the following:
1. Inspection procedures
 2. Types of cleaning agents to be used, and methods of cleaning
 3. A list of cleaning agents and methods of cleaning that could be detrimental to the product.
 4. The schedule for servicing, lubrication, routine cleaning and maintenance.
 5. Repair instructions
- E. Repair Materials and Sources: Manufacturer's recommended special maintenance tools and list of spare parts and recommended stock quantities for one year of routine maintenance. Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect the validity of warranties or bonds. Include the procedures to follow and the notifications required for warranty claims.

2.5 SYSTEMS AND EQUIPMENT MAINTENANCE MANUAL CONTENT

- A. List each system, subsystem, and piece of equipment not part of a system, included in the manual, identified by product name and arranged to match the manual's table of contents. Include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, a spare parts list, maintenance service contracts, and warranty and bond information, as described below. For each product, list the name, address, and telephone number of the Installer or supplier and the maintenance service agent, and cross-reference the Specification Section number and title in the Project Manual and Plan or schedule designation or identifier where applicable.
- B. Manufacturers' Maintenance Documentation: Include the following information for each component part or piece of equipment:
1. Standard maintenance instructions and bulletins.

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2. Plans, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly. If the system's control Plan is not adequate, provide simplified, professionally drawn, single line diagrams on minimum 8-1/2 x 11 IN, 20 LB white bond paper.
 3. Identification and nomenclature of parts and components.
 4. A list of items recommended to be stocked as spare parts.
- C. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
1. Test and inspection instructions.
 2. Troubleshooting guide.
 3. Precautions against improper maintenance.
 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 5. Aligning, adjusting, and checking instructions.
 6. Demonstration and training video recording, if available.
 7. List of special tools required to service or maintain equipment.
- D. Preventive Maintenance Instructions: Typewritten excerpts from manufacturer's written instructions for weekly, monthly, quarterly, annual, and other regularly scheduled maintenance prepared by a mechanical Subcontractor, with assistance from the equipment supplier.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, a list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Control Plans: Include Control Plans for equipment and components, including sequence of operations included in the control section of the Operation and Maintenance Manual submittal.

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- G. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to the manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- H. Maintenance Service Contracts: Include copies of maintenance agreements, with the name and telephone number of the service agent.
- I. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect the validity of warranties or bonds. Also include procedures to follow and required notifications for warranty claims.

PART 3 - EXECUTION - (NOT APPLICABLE TO THIS SECTION)

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 78 36
WARRANTIES AND GUARANTEES

PART 1 - GENERAL

1.1 SUMMARY

This Section includes administrative and procedural requirements for all warranties and guarantees necessary for Contract closeout.

1.2 RELATED REQUIREMENTS

- A. Section 01 33 00 - Submittal Procedures.
- B. Section 01 60 00 - Product Requirements.
- C. Section 01 77 00 - Substantial Completion.

1.3 SUBMITTAL OF WARRANTIES AND GUARANTEES

- A. Submit five copies to Omnitrans of each required warranty and guarantee properly executed by the Contractor, or by the Contractor and Subcontractor, Supplier, or manufacturer.
- B. Organize the warranty documents into an orderly sequence based on the table of contents of the Specifications, CSI Masterformat 2004, and the table of contents of the Project Manual.
 - 1. Bind warranties and guarantees in heavy-duty, commercial quality, three-slant ring, vinyl-covered, loose-leaf binders, with clear front and spine to receive inserts, thickness as necessary to accommodate the contents, and sized to receive 8-1/2 x 11 IN paper.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark each tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of the Installer.
 - 3. Include on a separate typed sheet (if the information is not contained in warranty or guarantee form) a description of the product or installation, and the name, address, telephone number, and responsible person for the applicable installer, supplier, and manufacturer.

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4. Identify each binder on the front and spine with the typed or printed title "WARRANTIES AND GUARANTEES," the Project name, and the name of the Contractor. If more than one volume of warranties and guarantees is produced, identify the volume number of each binder.
 5. Warranty Electronic File: Scan warranties and bonds and assemble the complete warranty and bond submittal package into a single indexed electronic PDF file, with links enabling navigation to each item. Provide a bookmarked table of contents at the beginning of the document.
- C. Provide additional copies of each warranty and include in the operation and maintenance manuals as required in Section 01 78 23 - Operations and Maintenance Data.
- D. Special Project Warranty and Manufacturer's Guarantee Forms: Forms for Special Project warranties and for manufacturer's guarantees are included at the end of this Section. Prepare a written document utilizing the appropriate form, ready for execution by the Contractor or the Contractor and Subcontractor, Supplier, or manufacturer. Submit a draft to Omnitrans for approval prior to final execution.
1. Refer to Specifications for specific content requirements and particular requirements for submittal of special Project warranties.
 2. Prepare standard product warranties and product guarantees, excepting manufacturer's standard printed warranties and guarantees, on the Contractor's, Subcontractor's, Material Supplier's, or manufacturer's own letterhead, and addressed to Omnitrans.
 3. Warranty and guarantee letters shall be signed by all responsible parties, and by the Contractor in every case, with modifications only as approved by Omnitrans to suit the conditions pertaining to the warranty or guarantee.
- E. Manufacturer's Guarantee Forms: Manufacturer's guarantee forms may be used in lieu of special Project forms included at the end of the Section. Manufacturer's guarantee forms shall contain appropriate terms and identification, ready for execution by the required parties.
1. If proposed terms and conditions restrict guarantee coverage or require actions by Omnitrans beyond those specified, submit a draft of the guarantee to Omnitrans for review and acceptance before performance of the Work.
 2. In other cases, submit a draft of the guarantee to Omnitrans for approval prior to final execution of the guarantee.

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- F. Signatures: The warranty and guarantee documents should be signed by persons authorized to sign warranties and guarantees on behalf of the entity providing the warranty or guarantee. The Contractor shall co-sign all warranties, except the manufacturers' printed guarantees.

1.4 TIME OF WARRANTY AND GUARANTEE SUBMITTALS

- A. Time of Submittal: Submit written warranties to Omnitrans for designated portions of the Work that are Substantially Complete as determined by Omnitrans.
- B. Submittal: Submit fully executed copies of warranties and guarantees within seven days of the date of Substantial Completion, but not later than three days prior to the date of application for final payment.
- C. Date of Warranties and Guarantees: Unless otherwise directed, the commencement date for warranty and guarantee periods shall be the date of Substantial Completion and acceptance of such Work.

1.5 WARRANTIES AND GUARANTEES

- A. All warranties and manufacturer's guarantees shall name Omnitrans as the beneficiary. For equipment, products, or components thereof bearing a manufacturer's warranty of guarantee that extends for a period of time beyond the Contractor's warranty and guarantee, so state in the warranty or guarantee.
- B. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties shall not relieve the Contractor of warranty on the Work that incorporates the products, nor shall they relieve suppliers, manufacturers, and installers required to countersign special warranties with the Contractor.
- C. Related Damages and Losses: When correcting warranted Work that has been found defective, remove and replace other Work that has been damaged as a result of such defect or that must be removed and replaced to provide access for correction of the warranted Work.
- D. Reinstatement of Warranty: When Work covered by a warranty has been found defective and has been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

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- E. Replacement Cost: Upon determination that Work covered by a warranty has been found to be defective, replace or reconstruct the Work to a condition acceptable to Omnitrans, complying with applicable requirements of the Contract Documents. The Contractor shall be responsible for all costs for replacing or reconstructing defective Work, regardless of whether Omnitrans has benefited from use of the Work through a portion of its anticipated useful service life.
- F. Omnitrans Recourse: Written warranties made to Omnitrans are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under law; nor shall warranty periods be interpreted as limitations on time in which Omnitrans can enforce such other duties, obligation, rights, or remedies.
- G. Rejection of Warranties: Omnitrans reserves the right to reject warranties and disallow the use of products with warranties in conflict with Contract Document requirements.
- H. Warranty as Condition of Acceptance: Omnitrans reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required until evidence is presented that those required to counter-sign such commitments are willing to do so.

PART 2 - PRODUCTS - (NOT APPLICABLE TO THIS SECTION)

PART 3 - EXECUTION - (NOT APPLICABLE TO THIS SECTION)

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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WARRANTY/GUARANTEE

FOR _____ WORK

We, the undersigned, do hereby warranty and guarantee that the parts of the Work described above which we have furnished and/or installed for Omnitrans are in accordance with the Contract Documents, and that all said Work as installed will fulfill or exceed all of the Warranty and Guarantee requirements. We agree to repair or replace Work installed by us, together with any adjacent Work that is displaced or damaged by the warranted work that proves to be defective in workmanship, material, or operation within a period of _____ from the date of final acceptance by Omnitrans or from the Date of Certificate of Substantial Completion, whichever is earlier. Ordinary wear and tear and unusual neglect or abuse are excepted. The period of this warranty/guarantee shall expire on _____.

In the event of our failure to comply with the above-mentioned conditions within a reasonable time period determined by Omnitrans, after notification in writing, we, the undersigned, all collectively and separately, hereby authorize Omnitrans to have said defective Work repaired and/or replaced and made good, and agree to pay to Omnitrans upon demand all monies that Omnitrans may expend in making good said defective Work, including all collection costs and reasonable attorney fees.

(Subcontractor, Sub Subcontractor, Manufacturer, or Supplier)

By _____

Title _____

State License No. _____ Date _____

(Contractor)

By _____

State License No. _____ Date _____

Local Representative. For maintenance, repair, or replacement service, contact:

Name: _____

Address: _____

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Phone Number: _____

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SECTION 01 78 39
PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section addresses administrative and procedural requirements for preparing project As-Built Drawings, Specifications, and Construction Schedule, Product Data and other miscellaneous records submitted as required by the Contract Documents.

1.2 RELATED REQUIREMENTS

- A. Section 01 33 00 - Submittal Procedures
- B. Section 01 77 00 - Substantial Completion
- C. Section 01 77 19 - Project Closeout

PART 2 - PRODUCTS

2.1 AS-BUILT DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings (Plans) and Shop Drawings incorporating new and revised drawings as modifications are issued.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require the individual or entity who obtained the record data, whether the individual or entity is an Installer, Subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints as follows:
 - a. Provide complete information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 - e. Cross-reference record prints to corresponding archive photographic documentation.

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2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes and revisions to details shown on Plans. The lines shall be located on the Plans dimensionally from a fixed point, such as a street-curb line, centerline, permanent structure, or an exposed part of a structure.
 - b. Depths of foundations below first floor.
 - c. Locations and depths of underground utilities including horizontal and vertical location of underground utilities affected by the Work. This includes new utilities installed and utilities found and left in place.
 - d. Revisions to routing of piping and conduits.
 - e. Revisions to electrical circuitry.
 - f. Actual equipment locations, duct size and routing.
 - g. Changes made by Change Order or Change Directive.
 - h. Changes made following Omnitrans' written orders.
 - i. Details not on the original Plans.
 - j. Field records for variable and concealed conditions.
 - k. Record information on the Work that is shown only schematically.
 - l. Actual locations of trackwork, signals, and signal conductors.
3. Mark Plans and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up prints. Record new information and details that are recognized to be of importance to Omnitrans, but that were not shown on either the Plans or on Shop Drawings. Record changes on whichever Plan is most capable of showing the "field" condition fully and accurately; and when Shop Drawings are used for As-Built Drawings.
4. Mark the As-Built set with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
5. Mark important additional information that was either shown schematically or omitted from the original Plans.
6. Note Construction Change Directive numbers, RFI numbers, option numbers, Change Order numbers, and similar identification, where applicable.

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7. Each drawing sheet, marked or unmarked, shall be stamped “As-Built” in red ink.
8. As-Built drawings require approval by Omnitrans.
9. Submit two complete sets of full-size marked-up prints and a complete PDF electronic file. Include each drawing sheet whether or not changes and additional information were recorded.

2.2 AS-BUILT SPECIFICATIONS

- A. Preparation: Mark-up Specifications to indicate the actual product installation whenever the installation varies from that indicated in Specifications, addenda, and contract modifications.
1. Provide detailed information on concealed products and equipment installations that cannot be readily identified and recorded later.
 2. Mark-up copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Record the name of the manufacturer, supplier, and Installer, and include other information necessary to provide a record of the selections made.
 4. For each principal product indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
 5. Note related Change Orders, record Product Data, and Record Drawings where applicable.
- B. Format: Submit As-Built Specifications as paper copy and scanned PDF electronic files of the marked-up paper copy of the Specifications.

2.3 AS-BUILT CONSTRUCTION SCHEDULE

In order to obtain Substantial Completion a final As-Built schedule shall be submitted and approved by the Omnitrans, in accordance with Section 01 32 16 Construction Project Schedule.

2.4 PRODUCT DATA

- A. Preparation: Mark-up Product Data to indicate the actual product installation whenever the installation varies substantially from that indicated in the Product Data submittal.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.

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2. Include significant changes in the product delivered to the Work Site, and changes in the manufacturer's written instructions for installation.
 3. Note related Change Orders, Record Specifications, and Record Drawings where applicable.
- B. Format: Submit Record Product Data as paper copy and scanned PDF electronic file(s) of the marked-up paper copy of the Product Data. Include a Record Product Data directory organized by Specification section number and title, electronically linked to each item of the Record Product Data.

2.5 MISCELLANEOUS RECORDS

- A. Assemble miscellaneous records required by other Specification sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as paper copy and scanned PDF electronic file(s) of marked-up miscellaneous record submittals. Include a miscellaneous record submittals directory organized by Specification section number and title, electronically linked to each item of the miscellaneous record submittals.

2.6 SUBMITTAL TITLE

- A. Label each document "AS-BUILT" in two-inch high printed letters or a height appropriate to document.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. The monthly progress payment application will not be processed by Omnitrans until the Contractor is found by Omnitrans to have completely and accurately recorded all as-built information for Work performed through the period of the progress payment application.
- B. Store record documents and Samples in the field office in files and racks apart from the Contract Documents (Plans) used for construction. Do not use Project Record Documents for construction purposes. Maintain documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Omnitrans shall be provided access to Project Record Documents.

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PART 4 - MEASUREMENT AND PAYMENT

4.1 BASIS OF PAYMENT

Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section. As-Built Drawings and photographs will be reviewed each month and the monthly progress payment will only be approved and processed if the Contractor is found by Omnitrans to be in conformance with the requirements of this Section.

END OF SECTION

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SECTION 01 79 00
DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for instructing Omnitrans personnel, including the following:
 - 1. Demonstration of the operation of systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.
 - 3. Demonstration and training video recordings.

1.2 RELATED REQUIREMENTS

- A. Section 01 31 00 - Project Management and Coordination.
- B. Section 01 78 23 - Operation and Maintenance Data.

1.3 INFORMATIONAL SUBMITTALS

- A. Instruction Program: Submit an outline of the instructional program for demonstration and training, including a list of training modules and a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
- B. Indicate the proposed training modules using manufacturer-produced demonstration and training video recordings for systems, equipment, and products in lieu of video recording of a live instructional module.
- C. Qualification Data for instructor and videographer (See Quality Assurance Subsection 1.5, below).
- D. Attendance Record: For each training module, submit a list of participants and the length of the instruction time.
- E. Evaluations: For each participant and for each training module, submit the results and documentation of a performance-based test.

1.4 CLOSEOUT SUBMITTALS

- A. Demonstration and Training Video Recordings: Submit two copies of the recordings within seven days of the end of each training module.

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1. Identification: On each copy, provide an applied label with the following information:
 - a. Name of Project
 - b. Name of the Engineer
 - c. Name of the Construction Manager
 - d. Name of the Contractor
 - e. Date of the video recording
2. Transcript: Prepared in PDF electronic format. Include a cover sheet with the same label information as the corresponding video recording, and a table of contents with links to corresponding training components. Include the name of the Project and the date of the video recording on each page.
3. Training Manuals: At the completion of training, submit complete training manual(s) for Omnitrans' use, prepared and bound in a format matching the operation and maintenance manuals; also submit one copy in PDF electronic file format on compact disc.

1.5 QUALITY ASSURANCE

- A. Instructor Qualifications: A factory-authorized service representative experienced in operation and maintenance procedures and training.
- B. Videographer Qualifications: A professional videographer who is experienced in photographing demonstration and training events similar to those required.
- C. Pre-instruction Conference: Conduct the conference at the Work Site to review methods and procedures related to the demonstration and training including but not limited to the following:
 1. Inspect and discuss locations and other facilities required for instruction.
 2. To avoid delays review and finalize the instruction schedule and verify the availability of educational materials, instructors' personnel, audiovisual equipment, and facilities needed.
 3. Review the required content of instruction.

1.6 COORDINATION

- A. Coordinate the instruction schedule with Omnitrans' operations. Adjust the schedule as required to minimize disrupting Omnitrans' operations and to ensure availability of Omnitrans' personnel.

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- B. Coordinate instructors, providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate the content of training modules with content of approved emergency, operation and maintenance manuals. Do not submit the instruction program until the operation and maintenance data has been reviewed and approved by Omnitrans.

PART 2 - PRODUCTS

2.1 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system as required by individual Specification Sections.
 - 1. Camera surveillance systems: 4 hours.
 - 2. Access control systems: 4 hours.
 - 3. Electrical service and distribution, including transformers, switchboards, panel boards, uninterruptible power supplies, and motor controls: 4 hours each.
 - 4. Packaged engine generators, including transfer switches: 8 hours.
 - 5. Exterior maintenance systems, including irrigation systems: 4 hours.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following as applicable to the system, equipment, or component:
 - 1. Basis of system design, operational requirements, and criteria – Include the following:
 - a. System, subsystem, and equipment descriptions
 - b. Performance and design criteria if the Contractor is delegated design responsibility.
 - c. Operating standards
 - d. Regulatory requirements
 - e. Equipment function
 - f. Operating characteristics
 - g. Limiting conditions
 - h. Performance curves
 - 2. Documentation: Review the following items in detail:

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- a. Emergency manuals
 - b. Operations manuals
 - c. Maintenance manuals
 - d. Project record documents
 - e. Identification systems
 - f. Warranties and bonds
 - g. Maintenance service agreements and similar continuing commitments.
3. Emergencies: Include the following, as applicable:
- a. Instructions on meaning of warnings, trouble indications, and error messages.
 - b. Instructions on stopping
 - c. Shutdown instructions for each type of emergency.
 - d. Operating instructions for conditions outside of normal operating limits.
 - e. Sequences for electric or electronic systems.
 - f. Special operating instructions and procedures.
4. Operations: Include the following, as applicable:
- a. Startup procedures
 - b. Equipment or system break-in procedures
 - c. Routine and normal operating instructions
 - d. Regulation and control procedures
 - e. Control sequences
 - f. Safety procedures
 - g. Instructions on stopping
 - h. Normal shutdown instructions
 - i. Operating procedures for emergencies
 - j. Operating procedures for system, subsystem, or equipment failure.
 - k. Seasonal and weekend operating instructions.
 - l. Required sequences for electric or electronic systems.
 - m. Special operating instructions and procedures
 - n. Noise and vibration adjustments

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- o. Economy and efficiency adjustments
 - p. Effective energy utilization
- 5. Adjustments: Include the following:
 - a. Alignments
 - b. Checking adjustments
 - c. Noise and vibration adjustments
 - d. Economy and efficiency adjustments
- 6. Troubleshooting: Include the following:
 - a. Diagnostic instructions
 - b. Test and inspection procedures
- 7. Maintenance: Include the following:
 - a. Inspection procedures
 - b. Types of cleaning agents to be used, and methods of cleaning.
 - c. List of cleaning agents and methods of cleaning that are detrimental to product.
 - d. Procedures for routine cleaning
 - e. Procedures for preventive maintenance
 - f. Procedures for routine maintenance
 - g. Instruction on use of special tools
- 8. Repairs: Include the following:
 - a. Diagnosis instructions
 - b. Repair instructions
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components
 - e. Review of spare parts needed for operation and maintenance.

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PART 3 - EXECUTION

3.1 PREPARATION

- A. Assemble educational materials necessary for instruction including a documentation and training module. Assemble training modules into a training manual organized in coordination with requirements in Section 01 78 23 - Operations and Maintenance Data.

3.2 INSTRUCTION

- A. Facilitator: Engage a qualified facilitator to prepare the instruction program and training modules, to coordinate instructors, and to coordinate between the Contractor and Omnitrans for the number of participants, instruction times, and location.
- B. Provide manufacturer's instructors or instructors certified by the manufacturer as being experienced in operation and maintenance procedures for each system, subsystem, or piece of equipment to instruct Omnitrans personnel on how to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 - 1. Omnitrans will furnish an instructor to describe the basis of system design, operational requirements, criteria, and regulatory requirements.
 - 2. Omnitrans will furnish an instructor to describe Omnitrans' operational philosophy.
 - 3. Omnitrans will furnish the Contractor with names and positions of participants.
- C. Scheduling: Provide instruction at mutually agreed-on times. For equipment that requires seasonal operation, provide similar instruction at the start of each season.
 - 1. Schedule training with Omnitrans with at least seven days advance notice.
 - 2. Schedule training to conform to personnel availability at the Project site, and to conclude prior to the start-up of system.
- D. Training Location and Reference Material: Conduct training onsite in the completed and fully operational facility, using the actual equipment in-place. Conduct training using final operation and maintenance data submittals.
- E. Evaluation: At the conclusion of each training module, assess and document each participant's mastery of the module by use of an oral, written, or demonstration performance-based test.

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- F. In addition to written technical descriptions, training shall detail the training program itself to allow those who have completed training to provide training for new employees, resulting in a self-perpetuating training program.
- G. Cleanup: Collect used and leftover educational materials and deliver to Omnitrans. Remove instructional equipment. Restore systems and equipment to the condition existing before initial training use.

3.3 DEMONSTRATION AND TRAINING VIDEO RECORDINGS

- A. General: Engage a qualified commercial videographer to record demonstration and training video recordings. Record each training module separately. Include classroom instructions and demonstrations, board diagrams, and other visual aids, but not student practice.
 - 1. At the beginning of each training module record each chart containing the learning objective and the lesson outline.
 - 2. Video shall allow self-training, so future employees may view it at their own convenience and be able to comprehend the system without needing to have an instructor in attendance.
- B. Video: Provide high definition video resolution converted to a format file type acceptable to Omnitrans, on electronic media.
 - 1. Electronic Media: Read-only format compact digital video disc acceptable to Omnitrans, with a commercial-grade graphic label.
 - 2. File Hierarchy: Organize the folder structure and file locations according to the Project manual table of contents. Provide a complete screen-based menu.
 - 3. File Names: Utilize file names based on the name of the equipment generally described in the video segment, as identified in Project Specifications.
 - 4. The Contractor and Installer Contact File: Using appropriate software, create a file for inclusion on the Equipment Demonstration and Training DVD that describes the following for each Contractor involved on the Project, arranged according to Project table of contents:
 - a. Name of the Contractor/Installer
 - b. Business address
 - c. Business phone number
 - d. Point of contact
 - e. E-mail address

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- C. Recording: Mount the camera on a tripod before starting recording unless otherwise necessary to adequately cover the area of demonstration and training. Display continuous running time. Film training session(s) in segments not-to-exceed 15 minutes.
1. Produce segments to present a single significant piece of equipment per segment.
 2. Organize segments with multiple pieces of equipment to follow the order of the Project manual table of contents.
 3. Where a training session on a particular piece of equipment exceeds 15 minutes, stop filming and pause the training session. Begin the training session again upon commencement of a new filming segment.
- D. Light Levels: Verify light levels are adequate to properly light equipment. Verify equipment markings are clearly visible prior to recording. Furnish additional portable lighting as required.
1. Narration: Describe scenes on the video recording by audio narration using a microphone while the video is recorded. Include a description of the items being viewed.
 2. Transcript: Provide a transcript of the narration. Display images and running time captured from the videotape opposite the corresponding narration segment.
 3. Pre-produced Video Recordings: Provide video recordings used as a component of training modules in the same format as recordings of live training.

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 01 91 13
GENERAL COMMISSIONING REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Commissioning: Commissioning is a quality oriented process for achieving, verifying, and documenting the performance of facilities, systems, and assemblies to ensure that Omnitrans' defined objectives and criteria are satisfied. The Contractor will demonstrate to Omnitrans that it has completed the Project in conformance with the Contract Documents and that the Project will perform as specified in the Contract Documents.
- B. This Section includes general requirements that apply to implementation of commissioning process for systems, subsystems, equipment, assemblies, and components (collectively, "systems"). Commissioning shall:
 - 1. Verify that applicable systems are installed in accordance with the Contract Documents, manufacturers' recommendations, and industry accepted minimum quality standards, and that such installations undergo an adequate operational checkout by their installers.
 - 2. Verify and document proper performance of applicable equipment and systems.
 - 3. Verify that Operation & Maintenance (O&M) documentation delivered and kept onsite is complete, current, and accurate.
 - 4. Verify that Omnitrans' operating and maintenance personnel are adequately trained by respective manufacturers/installers and prepared to undertake O&M duties.
- C. Contractor shall be responsible for providing all test and commissioning equipment, tools, software, programming, programming support and incidentals and qualified technicians to start up, calibrate, debug and verify proper functioning of systems and subsystems as required by the established Commissioning Plan.
- D. Systems to be commissioned shall include, but not be limited to:
 - 1. Video Camera System, if applicable
 - 2. Irrigation Controller, if applicable
 - 3. Emergency electrical power generator and distribution systems, with automatic transfer switch and controls, if applicable

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1.2 RELATED SECTIONS

- A. Section 01 78 23 - Operation and Maintenance Data.
- B. Divisions 02 through 32 Sections for specific requirements relating to systems, assemblies and installations.

1.3 DEFINITIONS

- A. Basis of Design: A document prepared by system designer that records concepts, calculations, decisions, assumptions, and product selections used to satisfy the OPR and other regulatory requirements, standards and guidelines.
- B. Commissioning Plan: A document that describes the organization, schedule, resources allocated, and documentation required to execute and complete commissioning processes.
- C. Construction Checklist: A form used by Contractor to verify that appropriate components are onsite, ready for installation, correctly installed, and passed functional testing.
- D. CxA: Commissioning Authority appointed by Omnitrans to plan, schedule, and coordinate the Commissioning Team in implementing the commission processes. CxA shall be independent of system designer.
- E. Functional Testing: Generally refers to testing of a completely installed system or subsystem and demonstrates proper control of systems and equipment. Initially performed by Contractor (called "proofing") and witnessed afterward by the CxA to attain "acceptance" of that system or subsystem.
- F. Owner's Project Requirements (OPR): A document prepared by Omnitrans that details the functional requirements for various systems to be commissioned and lists Omnitrans' expectations for operating and maintaining installed systems. OPR shall include, but not be limited to Project goals, measurable performance criteria, cost considerations, quality benchmarks, success criteria, and supporting information.
- G. Systems, Subsystems, Equipment, Assemblies, and Components: When these terms are used collectively or individually, they shall mean the "as-constructed" systems, subsystems, equipment, assemblies, and components covered under the Commissioning Plan.
- H. Verification: A process by which specific documents, components, assemblies, equipment, subsystems and systems, and interfaces among several systems are confirmed as complying with governing OPR criteria. Performed by Contractor and witnessed by the CxA.

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1.4 COMMISSIONING TEAM

- A. Members appointed by Omnitrans: The CxA, O&M personnel, representatives of facility user(s), the Architect or Engineer of record, and design consultants.
- B. Members appointed by Contractor: Qualified and experienced individuals engaged by the Contractor or Subcontractor(s), each having the authority to act on behalf of the entity he/she represents, explicitly organized to implement the commissioning processes through a coordinated collaboration with all Commissioning Team members. Such members shall include, but not be limited to Contractor's onsite management and supervision representatives (project manager, project engineer, project superintendent) and Contractor's technical specialists, subcontractors, installers, suppliers, manufacturers, and other persons as CxA may deem appropriate. (Independent testing, adjusting, and balancing service providers and controls/instrumentation specialists shall be deemed as appropriate other persons.)

1.5 OMNITRANS'S RESPONSIBILITIES

- A. Assign O&M personnel and schedule them to participate in Commissioning Team activities.
- B. Develop Basis of Design and OPR. Compile and make such information available to all Commissioning Team members for reference and use.
- C. Appoint CxA who shall be authorized to act on Omnitrans behalf in directing and implementing the commissioning processes. CxA will provide construction checklists to Contractor.

1.6 CONTRACTOR'S RESPONSIBILITIES

- A. Contractor shall assign representatives with expertise and authority to act on its behalf, and shall schedule them to participate in and perform commissioning process activities including, but not limited to, the following.
 - 1. Evaluate performance deficiencies identified in test reports and, in collaboration with the entity responsible for system and equipment installation, recommend corrective action.
 - 2. Cooperate with CxA to resolve issues recorded in the test reports and issues log.
 - 3. Attend the commissioning team meetings held on a weekly basis or as often as mutually agreed by the participants.
 - 4. Integrate and coordinate commissioning process activities with the Contractor's construction schedule.
 - 5. Review and accept construction checklists provided by Omnitrans.

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6. Complete construction checklists, in electronic form, as Work is completed. Provide them to CxA on a daily basis or as often as the Commissioning Plan stipulates.
7. Complete commissioning process test procedures. Review and accept CxA performed commissioning test procedures.
8. Witness the start-up and activation of dynamic equipment and related components.
9. Compile test data, inspection reports, and certificates; include them in the respective systems O&M manuals and final commissioning process report.
10. Verify the execution of commissioning process activities, using random sampling. Sampling rates may vary from 1 to 100 percent as the CxA may direct. Verification will include, but is not limited to, equipment submittals, construction checklists, training, operating and maintenance data, tests, and test reports to verify compliance with OPR. When a random sample does not meet its requirement, immediately report the deficiency to the CxA and Omnitrans. The CxA will note the deficiency in the Issues Log.

1.7 COMMISSIONING PLAN

- A. The Commissioning Plan will be developed jointly by the CxA and Contractor. The Commission Plan shall be prepared by Contractor with input from the CxA. The Commissioning Plan shall be fully developed prior to completing the installation of subject systems. The Contractor is obligated to provide all necessary information pertaining to actual equipment used and installation procedures necessary to prepare the Commissioning Plan. If Contractor initiates system changes that alter the established commissioning process, the Contractor shall promptly notify the responsible system designer(s), the CxA and Omnitrans. The Commissioning Plan shall include, but not be limited to the following:
 1. Purpose of the commissioning
 2. Detail of the commissioning process
 3. Commissioning team members' responsibilities
 4. Describe Pre-functional Construction Checklist Procedures
 5. Provide a guideline for acceptance of each piece of equipment or system.
 6. Systems to be commissioned

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1.8 WORK TO RESOLVE DEFICIENCIES

- A. In some systems, maladjustments, misapplied equipment, and/or deficient performance under varying loads will result in a system that does not meet the original design intent. Correction of work will be completed under direction of the design professional, with input from the Contractor, equipment supplier/manufacturer, and Omnitrans.

1.9 ADDITIONAL COMMISSIONING

- A. Additional commissioning activities may be required after system adjustments, replacements, etc., have been completed. The Contractor, Subcontractors, and Suppliers shall include a reasonable contingency sufficient to complete this work as part of original contractual obligations.
- B. Corrective work shall be completed in a timely fashion to permit the timely completion of the commissioning process. Limited experimentation to render system performance will be permitted. If Omnitrans deems the experimentation effort to be ineffective or untimely to the commissioning process, Omnitrans will notify the Contractor indicating the nature of the problem, expected steps to be taken and the deadline for completion of activities. If the deadline passes without resolution of the problem, Omnitrans reserves the right to obtain supplementary services and equipment to resolve the problem. Costs incurred to solve the problems in an expeditious manner will be borne solely by the Contractor.

1.10 COMMISSIONING FIELD NOTEBOOK

- A. A Commissioning Field Notebook (CFN) shall be prepared by the Contractor to identify and keep track of all pertinent commissioning documentation required during the installation, start-up, checkout and commissioning phases. The CFN shall be utilized and maintained by the Contractor onsite and will be made available to all Subcontractors and Suppliers, as well as the CxA and Omnitrans, for reference and use. The CFN provides a single point for the Commissioning Team to file, copy and organize all pertinent commission process information. The CFN shall be formatted to contain at least the following:
 - 1. Summary describing notebook contents and use.
 - 2. Copy of formal Commissioning Plan for field reference.
 - 3. Listing of all Specifications documentation requirements per each Specification Section, with construction completion sign off's by the appropriate entities. Such documents include piping pressure testing, for example.
 - 4. Flushing reports, electrical circuit tests, factory start-up reports and any field testing related to commissioning.

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5. Tabs for each Specification Section with copies of pre-functional and functional test check sheets and space for related Contractor-furnished documents.
6. Commissioning project reports, resolution logs schedule information or any other documentation.
7. Updated copy of CxA's Issues Log.

1.11 PRE-FUNCTIONAL CONSTRUCTION CHECKLISTS

- A. Using the Pre-functional Construction Checklists, the Contractor must verify that the systems installed are in compliance with the Construction Documents and are fully functional. Commissioning is not intended to be a testing or inspection function that replaces any of the Contractor's or subcontractors' obligations for testing and proof of performance. Functional testing will only begin when checklists are completed by the appropriate subcontractors/installers/suppliers/manufacturers, signed and returned to the Contractor.

1.12 FUNCTIONAL TESTING

- A. Functional testing is performed by experienced and qualified technicians of the Contractor and Subcontractor(s) responsible for installation as facilitated and supervised by the Contractor and as may be observed by the CxA and Omnitrans. Functional testing will verify proper sequencing, operation and performance of installed equipment and systems under realistic operating conditions. Functional testing will follow up with written Functional Test Procedures, with test results documented for project's permanent record.

1.13 DOCUMENTATION

- A. In addition to the Pre-functional Construction Checklists and Functional Test Procedures, written documentation will be maintained for all other commissioning activities. Project communication reports shall be issued by the Contractor to the CxA and Omnitrans to document apparent deficiencies identified during examination of design and construction documents, daily work activities onsite, construction deficiencies and passing or failing functional test results. At the end of the commissioning process, all documentation will be assembled and summarized in the Final Commissioning Report prepared by Contractor with the CxA's input.

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1.14 DEFICIENCY RESOLUTION

- A. When an Inspection Report is issued to address an identified deficiency, the Contractor shall forward these reports to the appropriate entities to initiate corrective action in an expeditious manner. The responsible designers may only be relied upon for supplemental instructions or design modifications and issuance of final details. Contractor, Subcontractors and Suppliers shall be relied upon for implementation of that change or clarification.

PART 2 - PRODUCTS - (NOT APPLICABLE TO THIS SECTION)

PART 3 - EXECUTION - (NOT APPLICABLE TO THIS SECTION)

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to Work under other payment items and no separate measurement or payment will be made to the Contractor for Work of this Section.

END OF SECTION

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SECTION 03 08 13
CONCRETE TESTING AND EVALUATION - OWNER

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish all labor, materials, tools, equipment, and services for Concrete Testing and Evaluation - Owner, as indicated, in accordance with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. Standards:
 - 1. ASTM-C31: Standard Practice for Making and Curing Concrete Test Specimens in Field.
 - 2. ASTM-C42: Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
 - 3. ACI 318: Building Code Requirements for Structural Concrete and Commentary.
 - 4. ASTM-E329: Standard Specification for Agencies Engaged in Construction Inspection and/or Testing.
- B. Contractor's testing agency:
 - 1. Qualifications: Acceptable to Architect/Engineer, with evidence of recent inspection by Cement and Concrete Reference Laboratory of National Institute of Standards and Technology and of having corrected deficiencies noted and meet requirements of ASTM E 329.
 - 2. Authority: Agency and its representatives are not authorized to revoke, alter, relax, enlarge or release any requirement of Contract Documents, nor to approve or accept portion of Work.

1.3 SUBMITTALS

- A. Project Information:
 - 1. Contractor's testing agency qualifications.
 - 2. Production sample test reports (when required): Include same data as for mix designs.
 - 3. Reports of Contractor-optional tests.
 - 4. Test reports on in-place testing, if such testing is performed.

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PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.1 DESCRIPTION - GENERAL

- A. Test concrete materials and inspect operations as work progresses. Failure to detect defective work or material shall not prevent later rejection when such defect is discovered nor shall it obligate Architect/Engineer for final acceptance.
- B. Payment for testing:
 - 1. Pay for testing services required in paragraph "Responsibilities and Duties of Contractor."
 - 2. Routine testing of concrete furnished to job site for compliance with Contract Documents will be performed by Owner's testing agency at Owner's expense.
 - a. Routine testing consists of tests for compressive strength, slump, air, temperature and unit weight.
 - b. Tests shall be performed every 75 YD³ or 5000 ft² of surface area for slabs and walls, or fraction thereof, for each mixture design placed in one day.
 - c. Composite samples shall be obtained in accordance with ASTM-C172. Obtain each sample from a different batch of concrete on a random basis. Test batch shall be selected at random before commencement of concrete placement.
 - d. Agency shall mold and cure sufficient specimens from each sample in accordance with ASTM-C31 and report deviations from requirements, if any. Number of specimens molded shall be coordinated with the test specification requirements and construction operations.
 - e. Specimens shall be tested in accordance with ASTM-C39.

3.2 RESPONSIBILITIES AND DUTIES OF CONTRACTOR

- A. Provide necessary testing services for qualification of proposed materials and establishment of mix designs. Services performed by Contractor's testing agency.

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- B. Submit concrete materials and concrete mix designs proposed for use. Include results of testing performed to qualify materials and to establish mix designs. Place no concrete until Contractor has received approval in writing. See submittals paragraph.
- C. Use of testing service shall in no way relieve Contractor of responsibility to furnish materials and construction in full compliance with Contract Documents.
- D. To facilitate testing and inspection:
 - 1. Furnish labor to assist Owner's testing agency in obtaining and handling samples at site or other sources of materials.
 - 2. Advise Owner's testing agency sufficiently in advance of operations to allow for completion of routine testing and for assignment of personnel.
 - 3. Provide and maintain adequate facilities for safe storage and proper curing of concrete compressive strength test specimens on site for first 8 HR or until they gain sufficient strength, as required by ASTM-C31.
- E. Pay for following additional testing services to be performed by Owner's testing agency, on occasions indicated:
 - 1. Additional testing and inspection, whenever changes in materials or proportions are requested by Contractor.
 - 2. Additional testing of materials or concrete, whenever they fail by test or inspection, to meet specification requirements.
 - 3. Other testing services needed or required by Contractor, such as:
Additional field cured test specimens as needed for control of work by Contractor such as, when concrete may be stripped, reshored, unshored, post-tensioned, etc.

3.3 EVALUATION AND ACCEPTANCE OF COMPRESSIVE STRENGTH TEST RESULTS

- A. Evaluate test results for standard molded and cured test cylinders separately for each concrete mix design. For evaluation of potential strength and uniformity, each mix design shall be represented by at least five tests.

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- B. Strength level of concrete will be considered acceptable so long as averages of sets of three consecutive strength test results equal or exceed specified strength ($f'c$) and no individual strength test result falls below specified strength ($f'c$) by more than 3450 kPa 500 PSI.

3.4 TESTING CONCRETE IN PLACE

- A. When compressive strength tests indicate potential strength deficiency of in-place concrete, testing of concrete in place may be required as an aid in evaluating actual strength. If required, Contractor pay for concrete tests and engineering time and analysis required to evaluate actual in-place concrete strength made necessary by deficient strength cylinder tests.
- B. Testing by rebound hammer, ultrasonic, or other non-destructive device: Such tests shall be used to determine relative strengths at various locations in structure as an aid for selecting areas to be cored. Such tests, unless properly calibrated and correlated with other test data, will not be used as a basis for acceptance or rejection.
- C. Core tests: Obtain and test largest practical diameter cores, 2 IN minimum, in accordance with ASTM-C42. If concrete in structure will be dry under service conditions, air dry cores temperature 60 to 80 degF, relative humidity less than 60 percent for 7 days before test. Test dry. If concrete in structure will be more than superficially wet under service conditions, test cores after moisture conditioning.
1. Take at least three representative cores from each member or area of concrete in place that is considered potentially deficient in strength. Location will be determined by Architect/Engineer. If, before testing, one or more of cores indicates evidence of having been damaged subsequent to or during removal from structure, replace it.
 2. Concrete in area represented by a core test will be considered acceptable if average strength of cores is equal to at least 85 percent of, and if no single core is less than 75 percent of, specified strength ($f'c$).
 3. Fill core holes with low slump patching compound per Section 03 35 00.

3.5 ACCEPTANCE OR REJECTION OF CAST-IN-PLACE CONCRETE

- A. General:
1. Completed concrete work which conforms to applicable requirements of Contract Documents will be accepted without qualification.

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2. Concrete work which fails to conform to one or more requirements of Contract Documents shall be rejected and will not be accepted until repaired or proven adequate by concrete testing.
3. Contractor pays costs incurred in providing remedial work necessary to change rejected work to accepted work. Remedial work includes, but is not necessarily limited to, applicable repairs, replacement, reinforcement, engineering, and testing as denoted in following paragraphs.

B. Dimensional tolerances:

1. Formed surfaces resulting in concrete outlines smaller than permitted by tolerances shall be considered potentially deficient in strength and subject to confirmation of safety by structural analysis or load test. When deficiencies are confirmed, replace or reinforce structure as directed.
2. Formed surfaces resulting in concrete outlines larger than permitted by tolerances will be rejected if strength or finish of structure is not acceptable, or function is adversely affected. Otherwise members will be accepted. If surfaces are rejected, and removal of excess material is permitted, repair of surfaces in an approved manner will constitute acceptance. If surfaces are rejected, and removal of excess material is not permitted, replacement of member(s) in an approved manner will constitute acceptance.
3. Concrete member(s) cast in wrong location will be rejected if strength or finish is not acceptable, function is adversely affected or they interfere with other construction. Otherwise, member(s) will be accepted. If they are rejected, replacement of member(s) in an approved manner and in conformance with Contract Documents will constitute acceptance.
4. Inaccurately formed concrete surfaces exceeding limits of tolerances and which are exposed to view will be rejected. Repair of surfaces or replacement of member(s) in an approved manner and in conformance with Contract Documents will constitute acceptance.

C. Finish:

1. Slabs:
 - a. Finished slabs exceeding tolerance limits of Section 03 35 00 will be rejected if finish is not acceptable and function is adversely affected. If rejected, repair of finished surfaces or replacement of slab in an approved manner and in conformance with Contract Documents will constitute acceptance.

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- b. Repair may involve removing high spots with a terrazzo grinder, filling low spots with a patching compound, or other remedial measures as permitted.

2. Formed surfaces:

- a. Concrete exposed to view with defects which adversely affect appearance of specified finish will be rejected. Repair of surface defects in conformance with Section 03 35 00 will constitute acceptance.
- b. Concrete not exposed to view is not subject to rejection for defective finish.

D. Strength of structure:

- 1. Strength of structure in place will be considered potentially deficient and will be rejected if it fails to comply with requirements which control strength of structure, including but not necessarily limited to following:
 - a. Deficient concrete strength based on compressive strength tests.
 - b. Reinforcing steel size, quantity, strength, position, or arrangement at variance with requirements on reinforcement.
 - c. Concrete which differs from required dimensions or location in such a manner as to reduce strength.
 - d. Curing less than that specified, likely to result in deficient concrete strength.
 - e. Inadequate protection of concrete from extremes of temperature during early stages of hardening and strength development.
 - f. Mechanical injury, construction fires, accidents or premature removal of formwork likely to result in deficient strength.
 - g. Substandard workmanship likely to result in deficient strength.
- 2. When strength of structure is considered potentially deficient and is rejected, it will not be accepted until one of following remedies is completed. All proposed fixes to repair deficient concrete should be submitted by Contractor to Engineer for review and approval prior to any action by Contractor.
 - a. Confirmation of safety of structure by structural analysis.
 - b. Core tests shall be performed only when concrete strength is potentially deficient, and when safety of structure is not confirmed by structural analysis. Do not use if impractical to obtain or not feasible.

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- c. Confirmation of safety of structure by load tests performed and evaluated in accordance with ACI 318. Do not use if impractical to perform or not feasible.
- d. Replacement of structure deficient in strength.
- e. Subject to functional feasibility and Owner's approval, structure deficient in strength may be reinforced with supplement supports as directed by Architect.

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 03 11 00
CONCRETE FORMWORK

PART 1- GENERAL

1.1 SUMMARY

- A. Furnish all labor, materials, tools, equipment, and services for Concrete Formwork, as indicated, in accordance with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. Design, engineering, and construction of formwork are responsibility of Contractor.
 - 1. Design, engineer, and construct formwork for applicable gravity and lateral loads and pressures as well as other design considerations or applicable requirements of legal local building code.
 - 2. Develop shoring and re-shoring pattern and sequence so as not to exceed safe structural capacity of supporting structural systems. Confer with Architect, if there is any question, regarding the capacity of the structural system.
- B. Design, prepare formwork drawings and construct formwork in accordance with ACI 347, Guide to Formwork for Concrete.
- C. Layout and measurement of concrete forms and embedment's, required for work, performed by a licensed surveyor employed by the contractor.

1.3 SUBMITTALS (NOT USED)

1.4 DESCRIPTION

- A. Definition(s):
 - 1. Formwork: Total system of support for freshly placed concrete including mold or sheathing which contacts concrete as well as supporting members, hardware, and necessary bracing.
 - 2. Exposed construction: Exposed to view.
 - 3. Exposed to view: Concrete surfaces seen by the public from eye level from any walking surface in a public location after completion of building.

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- 4. Public location: Building areas accessible to public and employees not responsible for maintenance. Storerooms, unfinished space and large mechanical rooms are considered public locations. Equipment closets, elevator and mechanical penthouses are not public space.
- B. Use forms, wherever necessary, to confine concrete and shape it to required dimensions. Use forms of sufficient strength to withstand pressure resulting from placement and vibration of concrete, with sufficient rigidity to maintain specified tolerances.
- C. See concrete finish requirements in Section 03 35 00.
- D. Use earth side forms for spread footings, pile caps and unfinished grade beams where earth can be shaped to a straight and true surface. Do not use earth cuts as forms for other vertical surfaces unless permitted.

PART 2 - MATERIALS

2.1 MATERIALS

- A. Form facing materials: As indicated under description of finishes required.
- B. Form accessories, partially or wholly embedded in concrete, such as ties and hangers: Shall be of a commercially manufactured type. Do not use non-fabricated wire. Use form ties constructed so ends or end fasteners can be removed without causing appreciable spalling of concrete faces. After ends or end fasteners of form ties have been removed, embedded portion of ties shall terminate not less than 2 diameters or twice minimum dimension of tie from formed faces of concrete to be permanently exposed to view, but in no case less than 3/4 IN. When formed face of concrete is not to be permanently exposed to view, form ties may be cut off flush with formed surfaces. Use ties with 3/4 IN diameter cones on both ends.

2.2 FABRICATION OF FORMS

- A. Make forms sufficiently tight to prevent loss of cement fines. Place chamfer strips in outside corners of forms to produce 45 degree beveled corners on permanently exposed surfaces. Interior corners on such surfaces and edges of formed joints will not require beveling.
- B. To maintain specified finish tolerances, camber formwork to compensate for anticipated formwork deflections prior to hardening of concrete.
- C. Provide positive means of adjustment (wedges or jacks) of shores and struts and take up settlement during concrete placing operation. Securely brace forms against lateral deflection.

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- D. Provide temporary openings at base of column and wall forms and at other points where necessary to facilitate cleaning and observation immediately before concrete is placed.
- E. At construction joints, contact surface of form sheathing for flush surfaces exposed to view shall overlap hardened concrete in previous placement minimum 1 IN. Hold forms against hardened concrete to prevent offsets or loss of mortar at construction joint and to maintain a true surface.
- F. Construct wood forms for wall openings to facilitate loosening, if necessary, to counteract swelling.
- G. Fasten wedges (used for final adjustment of forms prior to concrete placement) in position after final check.
- H. Anchor formwork to shores or other supporting surfaces or members so upward or lateral movement of any part of formwork system is prevented during concrete placement.
- I. Provide runways for moving equipment with struts or legs, supported directly on formwork or structural member without resting on reinforcing steel.

2.3 TOLERANCES

- A. Construct formwork so concrete surfaces will conform to tolerance limits listed: Tolerances non-cumulative. Most restrictive tolerance governs. Tolerance limits noted are maximum deviations (plus or minus) on each side of intended line.
 - 1. Deviation from plumb:
 - a. In lines and surfaces of columns, piers, walls, and in arrises:
 - 1) In any length: 1 in 500 but not less than 1/8 IN.
 - 2) In any story: 3/8 IN.
 - 3) Maximum for entire length: 3/4 IN.
 - b. For exposed corner columns, control-joint grooves, and other conspicuous vertical lines:
 - 1) In any length: 1 in 1000 but not less than 1/8 IN.
 - 2) In any story: 3/16 IN.
 - 3) Maximum for entire length: 1/2 IN.
 - 2. Deviation from level or from grades specified:

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- a. In slab soffits, ceilings, beam soffits and in arrises, measured before removal of supporting shores:
 - 1) In any length: 1 in 750 but not less than 1/8 IN.
 - 2) In any bay: 3/8 IN.
 - 3) Maximum for entire length: 1/2 IN.
- b. In exposed lintels, sills, parapets, horizontal grooves, and other conspicuous horizontal lines:
 - 1) In any length: 1 in 1000, but not less than 1/8 IN.
 - 2) In any bay: 1/4 IN.
 - 3) Maximum for entire length: 1/2 IN.
3. Deviations from true plane of concrete surface exposed to view caused by bulging of form facing material between supports:
 - a. 3/16 IN or 1/300 of span between supports whichever is smaller.
4. Deviation from established position in plan of linear building lines, columns, walls:
 - a. In any length: 1 in 500, but not less than 1/8 IN.
 - b. In any bay: 1/2 IN.
 - c. Maximum for entire length: 3/4 IN.
5. Deviation in sizes and location of sleeves, floor openings, and wall openings: 1/4 IN.
6. Deviation in cross-sectional dimensions of columns and beams and in thickness of slabs and walls:
 - a. Minus: 1/4 IN.
 - b. Plus: 1/2 IN.
7. Footings:
 - a. Deviations in dimensions in plan:
 - 1) Minus: 1/2 IN.
 - 2) Plus: 2 IN.
 - b. Misplacement or eccentricity:
 - 1) 2 percent of footing width in direction of misplacement but not more than 2 IN.

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- c. Thickness:
 - 1) Decrease in specified thickness: 5 percent.
 - 2) Increase in specified thickness: No limit (except that which may interfere with other construction).
- 8. Deviation in steps:
 - a. In flight of stairs:
 - 1) Rise: 1/8 IN.
 - 2) Tread: 1/4 IN.
 - b. In consecutive steps:
 - 1) Rise: 1/16 IN.
 - 2) Tread: 1/8 IN.
 - c. Deviation from level for any step or landing: 1 in 1000 but not more than 1/8 IN.
- B. Formwork Classifications:
 - 1. Concrete formwork shall meet the following classification requirements:
 - a. Concrete noted as "Architectural Exposed Concrete": Class A.
 - b. Concrete exposed to view or to receive membrane waterproofing: Class B.
 - c. Footings: Class D.
 - d. All other concrete: Class C.
 - C. Tolerances apply to concrete dimensions only, not to positioning of vertical reinforcing steel, dowels, or embedded items, except where specifically noted otherwise.
 - D. Establish and maintain in undisturbed condition and until final completion of project, sufficient control points and bench marks to be used for reference purposes to check tolerances.
 - E. Regardless of tolerances listed allow no portion of building to extend beyond property line of project.

PART 3 - EXECUTION

3.1 PREPARATION OF FORM SURFACES

- A. Clean form surfaces and embedded materials of mortar, grout and foreign material before concrete is placed.

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- B. Unless otherwise specified or approved, treat surfaces of forms as follows:
1. Before placing of reinforcing steel or concrete, cover surfaces of forms with coating material that will effectively prevent absorption of moisture and prevent bond with concrete, and not stain concrete. A field applied form release agent or sealer or factory applied non-absorptive liner may be used.
 2. Do not allow excess form coating material to stand in puddles in forms nor in contact with hardened concrete against which fresh concrete is to be placed.

3.2 REMOVAL OF FORMS

- A. When repair of surface defects or finishing is required at early age, remove forms as soon as concrete has hardened sufficiently to resist damage from removal operations.
- B. Remove top forms on sloping surfaces of concrete as soon as concrete has attained sufficient stiffness to prevent sagging. Perform needed repairs or treatment required on such sloping surfaces at once, followed by specified curing.
- C. Loosen wood forms for wall openings as soon as this can be accomplished without damage to concrete.
- D. Formwork for columns, walls, sides of beams, and other parts not supporting weight of concrete may be removed as soon as concrete has hardened sufficiently to resist damage from removal.
- E. Where no re-shoring is planned, leave forms and shoring used to support weight of concrete in beams, slabs and other concrete members in place until concrete has attained its specified strength. Where re-shoring is planned, supporting formwork may be removed when concrete has reached 70 percent of specified strength, provided re-shoring is installed immediately.
- F. When shores and other vertical supports are arranged so non-load-carrying form-facing material may be removed without loosening or disturbing shores and supports, facing material may be removed at earlier age as permitted.

3.3 RE-SHORING

- A. When re-shoring is permitted or required, plan operations in advance. While re-shoring is underway, allow no live load on new construction.

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- B. During re-shoring do not subject concrete in beam, slab, column or other structural member to combined dead and construction loads in excess of loads permitted by Architect for developed concrete strength at time of re-shoring. Place re-shores as soon as practicable after stripping operations are complete but in no case later than end of working day on which stripping occurs. Tighten re-shores to carry required loads without overstressing construction. Leave re-shores in place until:
 - 1. Tests representative of concrete being supported have reached specified strength.
 - 2. In-place concrete is at least 7 days old.
 - 3. Loads imposed by construction operations do not exceed design loads.
- C. For floors supporting shores under newly placed concrete leave original supporting shores in place or re-shore. Re-shoring system shall have capacity sufficient to resist anticipated loads and equal to at least one half of capacity of shoring system above. Locate re-shores directly under shore position above unless otherwise permitted.
- D. In multi-story buildings extend re-shoring over sufficient number of stories to distribute weight of newly placed concrete, forms, and construction live loads in such a manner that capacity of floors as determined by design load and developed concrete strength at time of stripping and re-shoring is not exceeded.

3.4 REMOVAL STRENGTH

- A. When removal of formwork or re-shoring is based on concrete reaching specified strength, concrete shall be presumed to have reached this strength when either of following conditions has been met.
 - 1. When test cylinders, field cured along with concrete they represent, have reached specified strength.
 - 2. When concrete has been cured as specified for same length of time as age at test date of laboratory-cured cylinders which reached specified strength. Determine length of time concrete has been cured in structure by cumulative number of days or fractions thereof, not necessarily consecutive, during which temperature of air in contact with concrete is above 50 degrees F and concrete has been damp or sealed from evaporation and loss of moisture.

PART 4 - MEASUREMENT AND PAYMENT

- A. Refer to Section 01 22 00, Part 4, regarding measure and payment.

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- B. Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 03 18 13
CONCRETE SURFACE SEALER (EXTERIOR)

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish labor, materials, tools, equipment, and services for Concrete Surface Sealer, as indicated, in accordance with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. Applicator qualifications: Licensee of manufacturer or approved by manufacturer in writing.
- B. Minimum standards:
 - 1. Sealers proposed for use on this project shall be certified by the manufacturer to contain not less than a 40 percent active ingredient.
 - a. Silane or silane-siloxane blend.
- C. Coverage:
 - 1. Apply to the heaviest rate allowed by manufacturer of the product to be used.

1.3 SUBMITTALS

- A. Project Information:
 - 1. Application instructions including:
 - a. Surface preparation.
 - b. Anticipated application rates.
 - c. Method of assuring uniform application.
 - d. Environmental considerations and necessary precautions for workmen and property.
 - e. Surface preparation necessary for reapplication after warranty period.
- B. Contract Closeout Information:
 - 1. Warranty.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

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A. Concrete surface sealer:

1. Base:
 - a. L&M Construction Chemicals, or equivalent.
2. Optional:
 - a. Nox-Crete Chemicals, or equivalent.
 - b. ProSoCo, or equivalent.
 - c. Chemprobe Coatings Systems, or equivalent.
 - d. Zerovoc Technologies, or equivalent.

Other manufacturers desiring approval comply with Section 00 26 00.

2.2 MATERIALS

A. Concrete Surface Sealer:

1. Clear, colorless, non-filming and fully penetrating material.
2. Products:
 - a. Aquapel+Plus by L&M Construction Chemicals, or equivalent.
 - b. Dur A Pell 40 by Chemprobe, or equivalent.
 - c. SL40 by ProSoCo, or equivalent.
 - d. ZLi71 by Sealwize, or equivalent.
 - e. Enviroseal Seal 20 by BASF, or equivalent.
 - f. Dur A Pell 20 by Chemprobe, or equivalent.
 - g. Aquapel by L&M Construction Chemicals, or equivalent.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Manufacturer inspect and approve surface preparation prior to application of sealer.

3.2 JOB CONDITIONS

- A. Install joint sealants prior to installing sealer.
- B. Clean surfaces to be sealed of construction and traffic residues.
- C. Install only when ambient temperatures and moisture content of concrete surfaces is acceptable to sealer manufacturer.
- D. Apply this repellant coating and allow adequate cure time before painting parking stripes.

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- E. Manufacturer inspect and approve surface preparation prior to application of sealer.
- F. Manufacturer monitor and approve applicator's method and rate of applying sealer.
- G. Coordinate surface sealer application so as to not interfere with installation and adhesion of sealants or flooring.

3.3 CLEANING

Broom clean surfaces after completion of work.

PART 4 - MEASUREMENT AND PAYMENT

- A. Refer to Section 01 22 05, Part 4, regarding measure and payment.
- B. Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 03 21 00
REINFORCING STEEL

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Reinforcing bar requirements for concrete construction.

1.2 REFERENCES

A. American Concrete Institute (ACI):

1. SP 66, ACI Detailing Manual.
2. 318, Building Code Requirements for Structural Concrete.

B. ASTM International (ASTM):

1. A185, Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete.
2. A497, Standard Specification for Steel Welded Wire Reinforcement, Deformed, for Concrete.
3. A615, Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
4. A706, Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement.
5. A775, Standard Specification for Epoxy-Coated Steel Reinforcing Bars.

C. American Welding Society (AWS):

1. D1.4, Structural Welding Code - Reinforcing Steel.

D. Concrete Reinforcing Steel Institute (CRSI):

1. Manual of Standard Practice.
2. California Department of Transportation Standard Specifications (2006).

1.3 SUBMITTALS

A. Shop Drawings:

1. See Division 01 for requirements for the mechanics and administration of the submittal process.
2. Product technical data including:

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- a. Acknowledgement that products submitted meet requirements of standards referenced.
 - b. Manufacturer's installation instructions.
 - c. Mill certificates for all reinforcing.
 - d. Manufacturer and type of proprietary rebar mechanical splices.
 - e. Manufacturer and type of rebar adhesive anchor including installation instructions.
3. Qualifications of welding operators, welding processes and procedures.
 4. Rebar number, sizes, spacing, dimensions, configurations, locations, mark numbers, lap splice lengths and locations, concrete cover and rebar supports.
 5. Sufficient rebar details to permit installation of reinforcing.
 6. Rebar details in accordance with ACI SP 66.
 7. Locations where proprietary rebar mechanical splices are required or proposed for use.
 8. Shop Drawings shall be in sufficient detail to permit installation of reinforcing without reference to Contract Plans.
 - a. Shop Drawings shall not be prepared by reproducing the plans and details indicated on the Contract Plans but shall consist of completely redrawn plans and details as necessary to indicate complete fabrication and installation of all reinforcing steel.

1.4 QUALITY ASSURANCE

A. Qualifications:

1. Welding operators, processes and procedures shall be qualified in accordance with AWS D1.4.
2. Welding operators must have been qualified during the previous 12 months prior to commencement of welding.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Support and store all reinforcing above ground.
- B. Ship to jobsite with attached plastic or metal tags with permanent mark numbers which match the Shop Drawing mark numbers.
- C. Handling of Epoxy-Coated Rebar:
1. Use padded or nonmetallic slings and padded straps to protect coated reinforcement from damage.

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2. Handle bundled bars to prevent sagging that could damage the coating.
3. Do not drop or drag rebars.
4. Store on wooden cribbing.
5. Coated rebars subject to rejection by Engineer if rebar coating has been damaged.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURES

- A. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:
1. Rebar adhesive anchors:
 - a. HIT-HY150 System by HILTI FASTENING SYSTEMS, INC., or equivalent.
 - b. Epcon Adhesive Anchoring System by ITW Ramset/Red Head, or equivalent..
 - c. Power-Fast by Powers Fastening, Inc. , or equivalent.
 2. Rebar mechanical splices:
 - a. Lenton Rebar Splicing by Erico, Inc., or equivalent.
 - b. Richmond dowel bar splicer system by Richmond Screw and Anchor Co., Inc., or equivalent.
 - c. Bar-Grip Systems by Barsplice Products, Inc., or equivalent.
- B. Submit request for substitution in accordance with Division 01.

2.2 MATERIALS

- A. Reinforcing Bars: ASTM A615, grade 60, deformed.
- B. Reinforcing Bars to be Welded: ASTM A706.
- C. Welded Wire Reinforcement: ASTM A185 or ASTM A497.
- D. Smooth Dowel Bars: ASTM A615, grade 60 with metal end cap to allow longitudinal movement equal to joint width plus 1 inch.
- E. Epoxy-Coated Rebars: ASTM A775 and ASTM A615, Grade 60, meeting Annex A1 for epoxy coating.
- F. Epoxy-Coated Rebar Patching Material:
1. Compatible with the coating material.
 2. Inert in concrete.

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3. Meet requirements of Annex A1 of ASTM A775.
4. Obtained from the manufacturer of the epoxy resin that was used to originally coat the rebars.
- G. Proprietary Rebar Mechanical Splices: To develop in tension and compression a minimum of 125 percent of the yield strength of the rebars being spliced.
- H. Welding Electrodes:
E90 meeting requirements of AWS D1.4.
- I. Rebar Adhesive Anchors:
Manufactured for the specific purpose of embedding and developing 125 percent of the yield strength of rebars in hardened concrete.

2.3 ACCESSORIES

- A. Metal Chairs, Runners, Bolsters, Spacers, Hangers, and Other Rebar Supports:
 1. Plastic-coated tips in contact with forms.
 2. Plastic coating meeting requirements of CRSI Manual of Standard Practice.
- B. Protective plastic caps at mechanical splices.

2.4 FABRICATION

- A. Tolerances:
 1. Sheared lengths: +1 IN.
 2. Overall dimensions of stirrups, ties and spirals: +1/2 IN.
 3. All other bends: +0 IN, -1/2 IN.
- B. Minimum diameter of bends measured on the inside of the rebar to be as indicated in ACI 318 Paragraph 7.2.
- C. Ship rebars to jobsite with attached plastic or metal tags.
 1. Place on each tag the mark number of the rebar corresponding to the mark number indicated on the Shop Drawing.
 2. Mark numbers on tags to be so placed that the numbers cannot be removed.
 3. For epoxy-coated rebars, use only plastic tags secured to rebars by nylon or plastic ties.

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PART 3 - EXECUTION

3.1 INSTALLATION

A. Tolerances:

1. Rebar placement:

- a. Clear distance to formed surfaces: +1/4 IN.
- b. Minimum spacing between bars: -1/4 IN.
- c. Top bars in slabs and beams:
 - 1) Members 8 IN deep or less: +1/4 IN.
 - 2) Members between 8 IN and 2 FT deep: -1/4 IN, +1/2 IN.
 - 3) Members more than 2 FT deep: -1/4 IN, +1 IN.
- d. Crosswise of members: Spaced evenly within +1 IN.
- e. Lengthwise of members: +2 IN.

2. Minimum clear distances between rebars:

- a. Beams, walls and slabs: Distance equal to rebar diameter or 1 IN, whichever is greater.
- b. Columns: Distance equal to 1-1/2 times the rebar diameter or 1-1/2 IN, whichever is greater.
- c. Beam and slab rebars shall be threaded through the column vertical rebars without displacing the column vertical rebars and still maintaining the clear distances required for the beam and slab rebars.

B. Minimum concrete protective covering for reinforcement: As shown on Plans.

C. Minimum concrete protective covering for reinforcement, unless indicated otherwise on Plans:

- 1. 3 IN for concrete cast against earth, 2 IN all other locations.

D. Unless indicated otherwise on Plans, provide splice lengths for reinforcing as follows:

- 1. For rebars: Class B splice meeting the requirements of Paragraph 12.15 of ACI 318.
- 2. For welded wire reinforcement:
 - a. Splice lap length measured between outermost cross wires of each fabric sheet shall not be less than one (1) spacing of cross wires plus 2 IN, nor less than 1.5 x development length nor less than 6 IN.

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- b. Development length shall be as required for the yield strength of the welded wire reinforcement in accordance with Paragraph 12.8 of ACI 318.
- 3. Provide splices of reinforcing not specifically indicated or specified subject to approval of Engineer.
 - a. Mechanical proprietary splice connectors may only be used when approved or indicated on the Contract Plans.

E. Reinforcing Steel Splices:

- 1. Splices of reinforcing bars shall consist of lap splices, service splices, or ultimate butt splices.
- 2. Splicing of reinforcing bars will not be permitted at a location designated on the plans as a "No-Splice Zone."
- 3. At the option of the Contractor, reinforcing bars may be continuous at locations where splices are shown on the Plans.
- 4. The location of splices, except where shown on the plans, shall be determined by the Contractor using available commercial lengths where practicable.
- 5. Unless otherwise shown on the plans, splices in adjacent reinforcing bars at any particular section shall be staggered.
 - a. The minimum distance between staggered lap splices or mechanical lap splices shall be the same as the length required for a lap splice in the largest bar.
 - b. The minimum distance between staggered butt splices shall be 2 FT, measured between the midpoints of the splices along a line which is centered between the axes of the adjacent bars.
- 6. Lap Splicing Requirements:
 - a. Splices made by lapping shall consist of placing reinforcing bars in contact and wiring them together, maintaining the alignment of the bars and the minimum clearances.
 - b. Should the Contractor elect to use a butt welded or mechanical splice at a location not designated on the plans as requiring a service or ultimate butt splice, this splice shall conform to the testing requirements for service splice.
 - c. Reinforcing bars shall not be spliced by lapping at locations where the concrete section is not sufficient to provide a minimum clear distance of 2 IN between the splice and the nearest adjacent bar.
 - d. The clearance to the surface of the concrete specified on the Plans shall not be reduced.

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7. Service Splicing and Ultimate Butt Splicing Requirements:

- a. Service splices and ultimate butt splices shall be either butt welded or mechanical splices, shall be used at the locations shown on the plans, and shall conform to the requirements of these Specifications and the Plans.

8. Mechanical Splices:

- a. Mechanical splices shall not be used for any reinforcing steel in the "Ultimate Splice Zone" as indicated on the Plans.
- b. Any mechanical splices proposed by the Contractor shall be submitted for review and approval by the Engineer prior to reinforcing steel fabrication.
- c. Only mechanical splices prequalified by the Transportation Laboratory of the California Department of Transportation shall be allowed.
- d. Submittal of proposed mechanical splices shall include:
 - 1) The type or series identification of the splice material including tracking information for traceability.
 - 2) The bar grade and size number to be spliced.
 - 3) A copy of the manufacturer's product literature giving complete data on the splice material and installation procedures.
 - 4) A statement that the splicing systems and materials used in conformance with the manufacturer's installation procedures will develop the required tensile strengths, based on the nominal bar area, and will conform to the total slip requirements and the other requirements in the California Department of Transportation Standard Specifications.
 - 5) A statement that the splice material conforms to the type of mechanical splice in the California Department of Transportation current prequalified list.

9. Butt Welded Splices:

- a. Except for resistance butt welds, butt welded splices of reinforcing bars shall be complete joint penetration butt welds conforming to the requirements in AWS D 1.4, and these Specifications.
- b. Welders and welding procedures shall be qualified in conformance with the requirements in AWS D 1.4.
- c. Only the joint details and dimensions as shown in Figure 3.2, "Direct Butt Joints," of AWS D 1.4, shall be used for making complete joint penetration butt welds of bar reinforcement.
 - 1) Split pipe backing shall not be used.

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- d. Butt welds shall be made with multiple weld passes using a stringer bead without an appreciable weaving motion.
 - 1) The maximum stringer bead width shall be 2.5 times the diameter of the electrode and slagging shall be performed between each weld pass.
 - 2) Weld reinforcement shall not exceed 0.16 IN in convexity.
 - e. Electrodes used for welding shall meet the minimum Charpy V-notch impact requirement of 27°J at -4 degrees.
 - f. All bars to be welded shall conform to the requirements of ASTM A706.
 - g. In the event that any of the specified preheat, interpass, and post weld cooling temperatures are not met, all weld and heat affected zone metal shall be removed and the splice rewelded.
 - h. Welding shall be protected from air currents, drafts, and precipitation to prevent loss of heat or loss of arc shielding.
 - 1) The method of protecting the welding area from loss of heat or loss of arc shielding shall be subject to approval by the Engineer.
 - i. Reinforcing bars shall not be direct butt spliced by thermite welding.
 - j. Procedures to be used in making welded splices in reinforcing bars, and welders employed to make splices in reinforcing bars, shall be qualified by tests performed by the Contractor on sample splices of the type to be used, before making splices to be used in the work.
10. Resistance Butt Welding:
- a. Shop produced resistance butt welds shall be produced by a fabricator who is approved by the Transportation Laboratory of the California Department of Transportation.
 - b. Before manufacturing hoops using resistance butt welding, the Contractor shall submit to the Engineer the manufacturer's Quality Control (QC) manual for the fabrication of hoops.
 - 1) As a minimum, the QC manual shall include the following:
 - a) The pre-production procedures for the qualification of material and equipment.
 - b) The methods and frequencies for performing QC procedures during production.
 - c) The calibration procedures and calibration frequency for all equipment.

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d) The Welding Procedure Specification (WPS) for resistance welding.

e) The method for identifying and tracking lots.

11. Service Splice and Ultimate Butt Splice Testing Requirement:

- a. Testing and reporting of test results for Service and Ultimate Butt Splices shall conform to the California Department of Transportation Standard Specification, Section 52 Reinforcement.

F. Placing Rebars:

1. Assure that reinforcement at time concrete is placed is free of mud, oil or other materials that may affect or reduce bond.
2. Reinforcement with rust, mill scale or a combination of both will be accepted as being satisfactory without cleaning or brushing provided dimensions and weights including heights of deformations on a cleaned sample is not less than required by applicable ASTM specification that governs for the rebar supplied.
3. Rebar support:
 - a. Uncoated rebar:
 - 1) Support rebars and fasten together to prevent displacement by construction loads or placing of concrete.
 - a) Locate and support reinforcement with bar supports to maintain minimum concrete cover.
 - b) Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.
 - 2) On ground, provide supporting concrete blocks or metal bar supports with bottom plate.
 - a) Do not use concrete blocks to support slab-on-grade reinforcing.
 - 3) Over formwork, provide plastic-coated metal chairs, runners, bolsters, spacers, hangers and other rebar support.
 - a) Only tips in contact with the forms need to be plastic coated.
 - b. Coated rebar:
 - 1) Support coated rebars and fasten together to prevent displacement.
 - 2) Use plastic or nylon ties to hold rebars rigidly in place.
 - 3) Support rebars by use of plastic or plastic-coated chairs, runners, bolsters, spacers, hangers and rebar supports as required.

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4. Support rebars over cardboard void forms by means of concrete supports which will not puncture or damage the void forms during construction nor impair the strength of the concrete members in any way.
5. Where parallel horizontal reinforcement in beams is indicated to be placed in two or more layers, rebars in the upper layers shall be placed directly above rebars in the bottom layer with clear distance between layers to be 1 IN.
 - a. Place spacer rebars at 3 FT maximum centers to maintain the required 1 inches clear distance between layers.
6. Extend reinforcement to within 2 IN of concrete perimeter edges.
 - a. If perimeter edge is formed by earth, extend reinforcement to within 3 IN of the edge.
7. To assure proper placement, furnish templates for all column/pier vertical bars and dowels.
8. Do not bend reinforcement after embedding in hardened concrete unless approved by Engineer.
 - a. Do not bend reinforcing by means of heat.
9. Do not tack weld reinforcing.
10. Embed rebars into hardened concrete utilizing adhesive anchor system specifically manufactured for such installation:
 - a. Drill hole in concrete with diameter and depth as required to develop 125 percent of the yield strength of the bar according to manufacturer's requirements.
 - b. Clean holes per manufacturer's recommendations.
 - c. Place adhesive in drilled hole.
 - d. Insert rebar into hole and adhesive in accordance with manufacturer's instructions.

3.2 FIELD QUALITY CONTROL

A. Reinforcement Congestion and Interferences:

1. Notify Engineer whenever the specified clearances between rebars cannot be met.
2. Do not place any concrete until the Engineer submits a solution to rebar congestion problem.
3. Rebars may be moved as necessary to avoid interference with other reinforcing steel, conduits, or embedded items.

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4. If rebars are moved more than one bar diameter, obtain Engineer's approval of resulting arrangement of rebars.
 5. No cutting of rebars shall be done without written approval of Engineer.
- B. Inspection of Epoxy-Coated Rebars:
1. Coated rebars will be inspected on the jobsite for handling defects, coating abrasion, coating thickness and continuity of coating.
 2. Engineer may defer final inspection of rebar coating integrity and repairs until the rebars have been erected and all handling is completed.
 3. Repair coated areas as directed by Engineer.
 - a. Do not place concrete until all repairs to coatings have been completed.
- C. Patching of Epoxy-Coated Rebar:
1. Patching and repair to be performed in accordance with the instructions of patching material manufacturer.
 2. Patching material to provide a minimum film thickness of 5 mils over the bare area.
 - a. Thickness of area adjacent to patched area not to exceed 15 mils.
 3. Areas to be patched to be clean and free of surface contaminants.
 - a. Treat areas in accordance with patching material manufacturer's instructions before oxidation occurs.
 4. Total surface area covered by patching material not to exceed 2 percent of total surface area of the rebar.
 5. Rebar welds and adjacent bare rebar areas to also be patched after welding is completed.
- D. Employ a testing laboratory to perform and report following:
1. Review and approve Contractor proposed welding procedures and processes for conformance with AWS D1.4.
 2. Qualify welders in accord with AWS D1.4.
 3. Test three (3) samples of each bar size and each type of weld in accord with AWS D1.4.
 - a. The tensile strength of each test shall be not less than 125 percent of the required yield strength of the rebar tested.
 4. Conduct nondestructive field tests (radiographic or magnetic particle) on not less than one (1) random sample for each 10 welds.

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- a. In addition if any welds are found defective, test five (5) previous welds performed by same welder.
- 5. Visually inspect each weld for presence of cracks, undercuts, inadequate size and other visible defects.

PART 4 - MEASUREMENT AND PAYMENT

- A. Refer to Section 01 22 05, Part 4, regarding measure and payment.
- B. Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 03 31 00
CONCRETE MATERIALS AND PROPORTIONING

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish labor, materials, tools, equipment, and services for Concrete Materials and Proportioning, as indicated, in accordance with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. ASTM International (ASTM):
 - 1. ASTM C33 Standard Specification for Concrete Aggregates
 - 2. ASTM C39 Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
 - 3. ASTM C94 Standard Specification for Ready-Mixed Concrete
 - 4. ASTM C138 Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
 - 5. ASTM C143 Standard Test Method for Slump of Hydraulic-Cement Concrete
 - 6. ASTM C150 Standard Specification for Portland Cement
 - 7. ASTM C157 Standard Test Method for Length Change of Hardened Hydraulic-Cement Mortar and Concrete
 - 8. ASTM C173 Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method
 - 9. ASTM C192 Standard Practice for Making and Curing Concrete Test Specimens in the Laboratory
 - 10. ASTM C231 Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
 - 11. ASTM C260 Standard Specification for Air-Entraining Admixtures for Concrete
 - 12. ASTM C311 Standard Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland-Cement Concrete
 - 13. ASTM C330 Standard Specification for Lightweight Aggregates for Structural Concrete

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14. ASTM C496 Standard Test Method for Splitting Tensile Strength of Cylindrical Concrete Specimens
 15. ASTM C567 Standard Test Method for Determining Density of Structural Lightweight Concrete
 16. ASTM C595 Standard Specification for Blended Hydraulic Cements
 17. ASTM C618 Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
 18. ASTM C989 Standard Specification for Slag Cement for Use in Concrete and Mortars
 19. ASTM C1399 Standard Test Method for Obtaining Average Residual-Strength of Fiber-Reinforced Concrete
 20. ASTM C1602 Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete
- B. American Concrete Institute (ACI):
1. Comply with applicable provisions of following ACI publications, latest edition, except as otherwise indicated.
 2. ACI 301 Specifications for Structural Concrete for Buildings.
- C. Concrete Mixture Proportioning:
1. Employ and pay for testing agency acceptable to Architect and Owner to perform materials evaluation, testing and design of concrete mixes.
 2. Certificates, signed by material producer and Contractor, may be submitted in lieu of material testing when approved by Architect.
- D. Concrete Testing:
1. Specified in Section 03 08 13
 2. Contractor to assist with related communication and temporary storage of test cylinders at jobsite.
- E. Preinstallation Conference:
1. See Section 01 31 19.
 2. Minimum thirty-five (35) days prior to start of concrete construction schedule, conduct meeting to discuss approved mix designs and required methods and procedures to achieve required concrete construction.
 3. Send a Pre-Installation Conference agenda to attendees twenty (20) days prior to scheduled date of the conference.
 4. Invite responsible representatives, in addition to those listed in Section 01 31 00, including but not limited to following:

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- a. Ready-mix concrete producer.
 - b. Admixture manufacturer.
 - c. Concrete pumping equipment manufacturer
 - d. Laboratory responsible for the concrete design mix.
 - e. Owners Testing Agency responsible for field quality control.
5. Record minutes of the meeting and distribute to attendees within five (5) days of conference.
- a. Include statement by concrete contractor indicating proposed mix design, and placing, finishing and curing procedures produce concrete quality required by specifications.

1.3 SUBMITTALS

A. Product Data:

1. Concrete Mix Designs:

- a. Submit each Mix Design individually.
- b. Do not combine multiple mix designs into a single submittal.
- c. Submit following data for each concrete mix proposed:
 - 1) Intended use.
 - 2) Proportions of materials.
 - 3) Slump.
 - 4) Air content.
 - 5) 7-day and 28-day compression test results of trial mixes or those used for standard deviation analysis of an established mix.
 - a) Test records for use in standard deviation analysis must have been made within 24 months of the date of the submittal and represent a time span of production of not less than 45 days.
- d. Submit source and certification or proof of quality (and compatibility of admixtures) for each of the constituents of the proposed concrete mixes. Compatibility of admixture must be certified.
 - 1) Cement.
 - 2) Aggregate.
 - 3) Water.

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- 4) Admixtures:
 - a) Air Entraining Admixture.
 - b) High-Range Water Reducer.
 - c) Other.
- e. Submit concrete mix designs using the mix design submittal form included at the end of this specification:

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Lightweight Concrete:
 - 1. Concrete made with low density, lightweight aggregate ASTM C 330 or mixture of lightweight and normal weight aggregate.
 - 2. Concrete having a density between 90 PCF and 115 PCF.
- B. Normal Weight Concrete:
 - 1. Concrete for which density is not a controlled attribute.
 - 2. Materials used in production must be of same quality, properties and proportion as indicated in approved concrete mix design as approved by Architect.
- C. Under-slab Vapor Retarder:
 - 1. Specified in Section 03 31 10.
- D. Cement:
 - 1. Portland cement, or equivalent, conforming to ASTM C150 or blended cements conforming to ASTM C595.
 - 2. Color: Natural gray.
- E. Aggregates:
 - 1. General:
 - a. Regard fine and coarse aggregates as separate ingredients.
 - b. Each size of coarse aggregate, as well as combination of sizes when two or more are used, shall conform to grading requirements of applicable ASTM specifications.
 - 2. Normal Weight Concrete:
 - a. ASTM C33, also aggregate shall be obtained from a source approved by the State Highway Department for use in concrete for state bridges.

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F. Potable Water:

1. Conforming to ASTM C1602.

G. Admixtures:

1. Use only when specifically required or permitted by Contract Documents, otherwise must be approved by Architect.
2. Trial mixes and tests shall be prepared with job materials, including admixture, to demonstrate that there will be no subsequent reduction in strength or durability of hardened concrete.
3. Provide admixtures certified by manufacture to be compatible with other admixtures. Calcium chloride, thiocyanates, and admixtures containing more than 0.05 percent chloride ions are not permitted.
4. Air-entraining Admixtures: ASTM C260.
5. Mid-Range Water Reducer: ASTM C494, Type A.
6. High-Range Water Reducer:
 - a. ASTM C494, Type F or G. Subject to complying with these specifications, the following manufacturers of High Range Water Reducing Admixtures are approved:
 - 1) Daracem – 100 or Adva Flow Series by Grace Construction Products.
 - 2) MasterRheobuild 1000 , MasterGlenium Series or PS 1466 by BASF Master Builders Solutions.
 - 3) Eucon 37 , Eucon SPJ or Plastol Series by Euclid Chemical.
 - 4) PSP-N, PSP-N2, PSP-R, and PSP-L by Procrete Industries.
 - b. Other manufacturers desiring approval comply with Section 00 26 00.
7. Water-reducing, Retarding, and Accelerating Admixtures: ASTM C494.
8. Non-Chloride, Non-Corrosive Accelerating Admixture:
 - a. ASTM C494, Type C or E, and not contain more chloride ions than are present in municipal drinking water. The admixture manufacturer must have long-term non-corrosive test data from an independent testing laboratory (of at least a year's duration) using an acceptable accelerated corrosion test method such as that using electrical potential measures. Acceptable products include:

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- 1) Euclid Chemical Co; Accelguard (The) 80, 90 or NCA .
www.euclidchemical.com
 - 2) BASF; Masterset AC 534. www.buildingsystems.basf.com
 - 3) W.R. Grace & Co; Daraset. www.na.graceconstruction.com
 - b. Other manufacturers desiring approval comply with Section 00 26 00.
9. Viscosity Modifying Admixture (VMA):
- a. Specialty admixture to reduce bleed and segregation in concrete
 - 1) Euclid Chemical Company (The); Viscrol.
 - 2) Boral Materials Technologies; Boral SL.
 - 3) BASF; MasterMatrix VMA Series
 - b. Other manufacturers desiring approval comply with Section 00 26 00.
10. Calcium-nitrite Corrosion Inhibitor:
- a. Base Products: DCI and DCI S by Grace Construction Products.
 - b. Rheocrete CNI by BASF Master Builders Solutions.
 - c. Eucon CIA by the Euclid Chemical Company
11. Incorporate at a rate of ____ G/YD3 in the areas identified.
12. Supplementary Cementitious Materials:
- a. Fly ash - ASTM C618, Class C or Class F.
 - 1) Samples shall be obtained, prepared, and tested in accordance with ASTM C311.
 - b. Ground Granulated Blast-Furnace Slag: ASTM C989, Grade 100 or 120.
13. Synthetic Macro Fibers
- a. ASTM C1116 Type III
 - b. Where permitted, fiber reinforced concrete shall replace and provide equivalent reinforcing to that indicated in both direct tension and bending capacity for concrete thickness indicated
 - c. Testing per ASTM C1018 and/or ASTM C1399 shall indicate a minimum residual strength of 170 PSI. Establish dosage rate required to meet performance specified.
 - 1) Submit manufacturers data verifying conformance
 - d. Minimum Dosage rate 4 LBS/CU YD.

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- e. Acceptable manufacturers
- 1) W.R.Grace Co.; Strux 90/40
 - 2) Euclid Chemical Company Tuf-Strand SF

2.2 PROPORTIONING CONCRETE MIXES

A. General:

1. Contractor and concrete supplier are responsible to provide concrete, in-place, which satisfies requirements listed in following table.
2. Contractor and concrete supplier are responsible to adjust the concrete mixes, as needed, to:
 - a. Correct for non-conformance.
 - b. Correct for a variation in the quality of a constituent.
 - c. Compensate for extreme conditions in the field.

- B. Establish concrete material proportions by any of the proportioning methods described in AC1-301 guidelines.

Concrete Properties Table – IP Units							
Use	28-day strength (KSI)	Dry Unit Weight (PCF)	Max Aggregate Size (IN)	Air percent	Max. W/C Ratio	Slump (IN)	Cement type
Footings, Grade Beams	4.0		1-1/2	4.5	0.48		I
Drilled Piers	4.0		1 1/2		0.57		I
Walls	4.0		1	4.5	0.48		I
Slabs-on-grade	3.5		1 1/2		0.53		I
Structural floors, girders, slabs, columns	4.0		3/4		0.45		I
Post-tensioned slabs & beams	5.0		3/4 or 1	6	0.40		I
Columns	6.0		3/4		0.35	9	I

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Concrete Properties Table – IP Units							
Use	28-day strength (KSI)	Dry Unit Weight (PCF)	Max Aggregate Size (IN)	Air percent	Max. W/C Ratio	Slump (IN)	Cement type
Radiology Shield, Wall, and Roof	3.0	147	1		0.70		I
Lt. Wt. Slabs on composite metal deck	3.5	115	3/4		0.50		I
Norm. Wt. Slabs on composite metal deck	3.5		3/4		0.50		I
Lt. Wt. Slabs, beams, girders	4.0	112	3/4		0.57		I
All other uses	4.0		3/4	6	0.48		I

C. Instructions for use of Table:

1. Provide concrete mixes with properties indicated in locations identified in Use column.
2. 28-day Strength:
 - a. Installed concrete must meet or exceed the minimum 28-day compressive strength indicated.
 - b. Laboratory mix design strengths must exceed this strength by the appropriate amount per AC1-301.
 - c. Determine strength in accordance with ASTM C192 and ASTM C39.
3. Dry Unit Weight:
 - a. If no value is listed, assume normal weight.
 - b. Dry unit weight of light weight mixes shall be maximum air dry unit weight permitted.

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- c. Correlate fresh weight with air dry weight of same mix to use as basis of acceptance on job site. Test in accordance with ASTM C567 and ASTM C138.
 - d. Dry unit weight for concrete for Radiation Shielding shall be minimum air dry unit weight permitted. Use heavy aggregate if necessary.
- 4. Maximum Aggregate Size:
 - a. Maximum size of coarse aggregate determined in accordance with:
 - 1) ASTM C33 for normal weight concrete.
 - b. Some mixes are designated 3/4 IN or 1 IN, permitting contractor option.
- 5. Air Content:
 - a. Required percentage of entrained and entrapped air as measured by ASTM C231, ASTM C173, or ASTM C138, as appropriate.
 - b. Tolerance of air content as delivered is +/- 1-1/2 percent for normal weight and +/- 2 percent for lightweight concrete.
 - c. When left blank, the required air content is not specified. All concrete exposed to freezing and thawing shall have air content between 4.5% and 7.5%. All interior slabs and all slabs to receive dry shake shall have a maximum air content of 3%.
- 6. Water Reducer:
 - a. Mid Range Water Reducer or High Range Water Reducer shall be provided as necessary to achieve slump indicated.
 - b. Contractor, as option, may elect to use Water Reducers to improve workability or permit pumping.
- 7. Maximum W/C Ratio:
 - a. Maximum ratio of pounds of water allowed to pounds of cementitious material used in the concrete mix.
- 8. Slump:
 - a. Mixes without Water Reducers:
 - 1) Slump tolerance: Up to 1 IN above maximum indicated is allowed, provided the average of 5 consecutive batches does not exceed the indicated amount by more than a 1/2 IN.
 - b. Mixes with Water Reducers:
 - 1) Slump indicated is after dosing.

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- 2) Slump tolerance after dosing: +1-1/2 IN and -1 IN is permitted for each batch.
 - c. Determine slump in accordance with ASTM C143.
 - d. Where slump is not specified, provide concrete with slump in accordance with approved mix designs
9. Cement:
- a. Type: Provide cement type indicated.
 - b. As option, the contractor/supplier may use Fly Ash or Ground Blast Furnace Slag for partial replacement of cement.
 - 1) For each unit of cement that is removed, replace with two units of Class F Fly Ash or one unit of Class C Fly Ash.
 - 2) For each unit of cement that is removed, replace with one unit of Ground Blast Furnace Slag.
 - 3) Maximum amount of cement replaced shall not exceed that specified in table 4.2.2.7.b.2 of ACI 301
 - 4) W/C ratio shall be based on total cementitious material content
- D. Admixtures:
1. Use admixtures in accordance with manufacturer's instructions.
 2. Use only approved admixtures.

PART 3 - EXECUTION

3.1 STORAGE OF MATERIALS

- A. Store cement in weather tight buildings, bins, or silos which will exclude moisture and contaminants.
- B. Arrange aggregate stockpiles and use in a manner to avoid excessive segregation and to prevent contamination with other materials or with other sizes of like aggregates.
 1. Perform tests for determining conformance to requirements for cleanliness and grading on samples secured from aggregates at point of batching.
 2. Do not use frozen or partially frozen aggregates.
- C. Allow sand to drain until it has reached relatively uniform moisture content before use.
- D. Store admixtures in manner to avoid contamination, evaporation, or damage.

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1. For those used in form of suspensions or non-stable solutions, provide agitating equipment to assure uniform distribution of ingredients.
2. Protect liquid admixtures from freezing and temperature changes which would adversely affect their characteristics.

3.2 MIXING AND DELIVERY

- A. Batch, mix and transport concrete in accordance with ASTM C94.
- B. Batch and mix admixtures in accordance with manufacturer's instructions.
- C. Concrete shall have a slump of 2 to 4 IN when it arrives at job site.
 1. Water additions at job site shall be limited to comply with W/C Ratio requirements.
 2. Do not allow water to be added to the mix unless the amount allowed is clearly indicated on the truck delivery ticket.
- D. Following addition of High Range Water Reducer, mix for a minimum of 70 revolutions or 5 minutes to assure a consistent mixture.
- E. Reduction of required average strength:
 1. During construction, and after sufficient data becomes available, laboratory strength of mixes may be reduced in accordance with Section 3.11 of AC1-301, subject to approval by the Architect.

END OF SECTION

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SECTION 03 31 10
CONCRETE MIXING, PLACING, JOINTING AND CURING

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish all labor, materials, tools, equipment, and services for Concrete Mixing, Placing, Jointing and Curing as indicated, in accordance with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. Materials standards:
 - 1. ASTM C171: Standard Specification for Sheet Materials for Curing Concrete.
 - 2. ASTM C309: Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
 - 3. ASTM C1315: Standard Specification for Liquid Membrane Forming Curing Compounds Having Special Properties for Curing and Sealing Concrete.
 - 4. ASTM D1751: Standard Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types).
 - 5. ASTM D1752: Standard specification for Preformed Sponge Rubber and Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction.
 - 6. ASTM E1643 Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs.
 - 7. ASTM E1745 Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs
- B. Production standards:
 - 1. ASTM C94: Standard Specification for Ready-mixed Concrete.
 - 2. ASTM C138 Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete.
 - 3. ASTM C567: Standard Test Method for Determining the Density of Structural Lightweight Concrete.

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4. ACI 305.1: Hot Weather Concreting.
5. ACI 306.1: Cold Weather Concreting.

1.3 SUBMITTALS

- A. Shop drawings:
 1. Placement plans: Indicate proposed locations of construction joints and placement sequence.
 2. Screeding and finishing plan.
- B. Product Data
- C. Project information:
 1. Joint filler technical data.
 2. Curing compound technical data.
 3. Waterstop technical data.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Strippable Curing Compound:
 1. Base:
 - a. Kurez DR VOX or Kurez W VOX by Euclid Chemical Company.
 - b. Horncrete WB, Horncrete WB 30 by Tamms.
- B. Chemical Curing Compound :
 1. Base:
 - a. L&M Construction Chemicals.
 2. Optional:
 - a. Dayton Superior.
 - b. Euclid.
 - c. Sonneborne.
 - d. WR Meadows.
- C. Curing Sheet Material
 1. Base
 - a. Hydracure M5 by PNA Construction Technologies, Inc., Matthews,
 - b. Transguard 4000 by Reef Industries (Armorlon Division), Incorporated,

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D. Other manufacturers desiring approval comply with Section 00 26 00.

2.2 MATERIALS

- A. Concrete materials and proportioning: See Section 03 31 00.
- B. Expansion joint filler, premolded: Type required, conforming to ASTM D1751 or ASTM D1752.
- C. Strippable Curing Compound:
 - 1. Conform to ASTM C309 (Voc Compliant, 350 g/l).
 - 2. For use on slabs receiving subsequent applied finishes and where noted on the drawings.
 - 3. Install in strict accordance with the manufacturer's recommendation and supervision.
- D. Curing Sheet Material:
 - 1. Moisture-Retaining Cover Conforming to ASTM C171: Naturally colored, non-woven polypropylene fabric with a 4-mil non-perforated reflective (white) polyethylene coating.
 - 2. Fabric shall exhibit low permeability and high moisture retention.
- E. Granular Fill: See Section 31 22 00.

PART 3 - EXECUTION

3.1 MIXING AND PRODUCTION OF CONCRETE

- A. Batch, mix and transport ready-mixed concrete in accord with ASTM C94.
 - 1. Plant equipment and facilities shall conform to Check List for Certification of Ready Mixed Concrete Production Facilities of National Ready Mixed Concrete Association.
- B. Site batched and mixed concrete will be permitted only after ability to control quality has been demonstrated to satisfaction of Architect.

3.2 MIXING - CONTROL OF ADMIXTURES

- A. Admixtures shall be added in accordance with Manufacturers recommendations
- B. If two or more admixtures are used, verify compatibility with manufacturers

3.3 MIXING - TEMPERING AND CONTROL OF MIXING WATER

- A. Mix concrete only in quantities for immediate use. Discard concrete which has set.

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- B. When concrete arrives at project with slump below that suitable for placing, water may be added only if neither maximum permissible water-cement ratio nor maximum slump is exceeded.
1. Incorporate water by additional mixing equal to at least half of total mixing required.
 2. Do not add water after discharge commences

3.4 MIXING - WEATHER CONDITIONS

A. Cold weather:

1. Comply with ACI 306.
2. In cold weather, temperature of concrete when delivered at site shall conform to following limitations:
3. For sections with least dimension greater than 36 IN, comply with table 3.1 of ACI 306R

Minimum Concrete Temperature Required at Time of Pour		
Air Temperature @ time of pour	For sections with least dimension less than 12 IN	For sections with least dimension 12 IN to 36 IN
Above 30 DegF	60 DegF	55 DegF
0 to 30 DegF	65 DegF	60 DegF
Below 0 DegF	70 DegF	65 DegF

Minimum Concrete Temperature Required within 24 Hours of Pour		
Air Temp within 24 Hours of pour	For sections with least dimension less than 12 IN	For sections with least dimension 12 IN or greater
Below 32	60 DegF	50 DegF

4. If water or aggregate is heated above 100 degF, combine water with aggregate in mixer before cement is added.
 - a. Do not mix cement with water or with mixtures of water and aggregate having a temperature greater than 100 degF.
 - b. Final temperature of combined mix shall not exceed 90 degF or be high enough to cause flash set or loss of slump or workability.

B. Hot weather:

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1. Comply with ACI 305 if high temperature, low slump, flash set, or cold joints are encountered.
2. Cool ingredients before mixing, or add flake ice or well-crushed ice of a size that will melt completely during mixing for all or part of mixing water. Account for water contribution by ice when calculating the quantity if mixing water and insure that specified W/C ration is not exceeded.

3.5 PREPARATION BEFORE PLACING

A. Equipment:

1. Remove hardened concrete and foreign material from inner surfaces of conveying equipment.
2. Provide spare vibrator on job site during concrete placing operations.
3. In cold weather, have protective blankets ready and heaters operational and in-place before placing concrete.

B. Forms:

1. Complete formwork: Remove frost, snow, ice, water and foreign material; secure reinforcement in place, position expansion joint material, anchors, and other embedded items and have entire preparation inspected prior to concrete placement.
2. In hot weather when temperature of reinforcing or forms is greater than 120 degF spray forms and reinforcement with water just prior to placing concrete.

C. Screeds and screed rails:

1. General:
 - a. Develop a screed system to accurately strike off fresh concrete to the surfaces defined on the drawings.
 - b. Anticipate the deflection of all formwork and support systems. Provide and place extra concrete as necessary to produce finish surfaces with specified tolerances at designated elevations and contours at no additional cost to the Owner.
 - c. When form work is cambered whether shored or un-shored and screeding is performed perpendicular (i.e., up and over) to the crown of the camber set screed rails to follow the camber and provide a slab of uniform thickness.
 - 1) When screeding parallel with the camber set one screed at midspan along the crown of the camber and one along the girder or support.

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- 2) Two passes of the screed is necessary to cover one full bay.
 - d. Other screeding methods may be used provided the deflection of un-shored formwork is taken into consideration.
 - e. On unshored steel framing systems, accurately strike off concrete to produce a level surface after steel supporting system has deflected due the dead weight of the fresh concrete. Slab thickness on cambered steel shall not be less than that indicated on plan.
 - f. If not required in the documents and subjected to the approval of the Architect, the Contractor as option may camber the formwork.
 - g. All concrete shall be struck off with a vibrating screed.
 - h. Use of a "wet screed" system will not be permitted unless:
 - 1) The concrete is struck with a pneumatically vibrated "floaters screed."
 - 2) A highway straight edge is used to true the surface perpendicular to the direction of the screeding.
 - 3) A satisfactory finish is produced on a trial slab.
 - i. Submit a screeding and finishing plan for approval.
 - 1) A representative trial slab pour shall be provided to demonstrate that the specified tolerances and a satisfactory surface can be provided by the proposed method of screeding and finishing.
- D. Subgrade for slabs on grade:
- 1. Subgrade shall be well drained and of adequate and uniform load bearing nature.
 - a. Keep in-place density of subgrade soils at least to minimum indicated.
 - 2. Keep subgrade free of frost before concrete placing begins.
 - a. If temperature inside a building where concrete is to be placed is below freezing, raise temperature and maintain above 50 degF long enough to remove frost from subgrade and reinforcing.
 - 3. Keep subgrade moist at time of concreting.
 - a. If necessary, dampen with water in advance of concreting.
 - b. Allow no free water standing on subgrade nor muddy or soft spots when concrete is placed.

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3.6 PROTECTION

- A. Unless adequate protection is provided and approval is obtained, do not place concrete when temperature is below freezing or during rain, sleet or snow.
- B. Do not allow rainwater to increase mixing water nor to damage surface finish.
- C. Concrete damaged by rain or weather and judged defective by Architect shall be removed and replaced by Contractor at no additional cost to Owner or corrected by procedures listed in Section "Testing and Acceptance."

3.7 CONVEYING

- A. Handle concrete from mixer to place of final deposit as rapidly as practicable by methods which prevent segregation or loss of ingredients and assure that quality is maintained.
- B. Use equipment conforming to ASTM C94.
- C. Use horizontal belt conveyors or mount at a slope which will not cause excessive segregation or loss of ingredients.
 - 1. Protect concrete against undue drying or rise in temperature.
 - 2. Handle to prevent segregation.
 - 3. Do not allow mortar to adhere to belt.
 - 4. Discharge long runs into a hopper or through a baffle.
- D. Use metal or metal-lined chutes with slope between 1 vertical and 2-3 horizontal.
 - 1. Chutes more than 20 FT long and chutes not meeting slope requirements may be used provided they discharge into a hopper before distribution.
- E. Pumping or pneumatic conveying equipment shall be of suitable kind with adequate pumping capacity.
 - 1. Control pneumatic placement so that segregation is not apparent in discharged concrete.
 - 2. Loss of slump in pumping or pneumatic conveying equipment shall not exceed 2 IN.
 - 3. Do not convey concrete through pipe made of aluminum or aluminum alloy.

3.8 DEPOSITING IN FORMS

- A. Work includes:

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1. Deposit concrete continuously or in layers of such thickness that no concrete is deposited on concrete which has hardened sufficiently to cause formation of seams or planes of weakness within section.
 2. Place at such a rate that concrete which is being integrated with fresh concrete is still plastic.
 3. Do not deposit concrete which has partially hardened or has been contaminated by foreign materials.
 4. Remove temporary spreaders in forms when concrete placing has reached an elevation rendering their service unnecessary.
 5. They may remain embedded in concrete only if made of metal or concrete and if prior approval has been obtained.
- B. Do not start placing concrete in supported elements until concrete previously placed in columns and walls is no longer plastic and has been in place at least two hours.
- C. Deposit concrete as nearly as practicable in its final position to avoid segregation due to re-handling or flowing.
1. Do not subject concrete to procedure which will cause segregation.
 2. Concrete shall not drop more than 6 FT unless approved by the Architect/Engineer. For greater heights, provide special mix design, chutes, spouts, tremies, or other approved method.
- D. Concrete buckets shall be equipped with rubber discharge tubes.
1. Tube size shall be effective in directing flow of concrete directly downward between reinforcing.
 2. Unless it can be demonstrated, no segregation will occur with greater distances, maximum free fall distance of concrete below flexible tube is limited to 4 FT.
- E. Consolidation:
1. Consolidate concrete by vibration, so that concrete is thoroughly worked around reinforcement, around embedded items and into corners of forms eliminating air or stone pockets which may cause honeycombing, pitting, or planes of weakness.
 2. Use internal vibrators having a minimum frequency of 8000 vibrations per minute to consolidate concrete effectively.
 3. Do not use vibrators to transport concrete within forms.
 4. Insert vibrators and withdraw at points approximately 18 IN apart.
 5. At each insertion allow duration sufficient to consolidate concrete but not sufficient to cause segregation; generally from 5 to 15 sec.

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6. Where concrete is to have an as-cast finish, bring a full surface of mortar against form by vibration process, supplemented if necessary by spading, to work coarse aggregate back from formed surface.

3.9 SLAB PLACEMENT

- A. Coordinate mixing and placing with finishing.
 1. Do not place concrete on subgrade or forms more rapidly than it can be spread, straight edged, and darbled or bull floated.
 2. Perform these operations before bleed water has an opportunity to collect on surface.
- B. To obtain good surfaces and avoid cold joints, plan size of finishing crews with due regard for effects of concrete temperature and atmospheric conditions on rate of hardening of concrete.
 1. If construction joints become necessary, construct as required under joints and embedded items.
- C. Consolidation:
 1. Thoroughly consolidate concrete in slabs.
 2. Use internal vibration in beams and girders of framed slabs and along bulkheads of slabs on grade.
 3. Obtain consolidation of slabs with vibrating screeds, roller pipe screeds, internal vibrators, or other approved means.

3.10 JOINTS AND EMBEDDED ITEMS

- A. Construction joints, other than slab on grade:
 1. Locate joints not indicated so as to least impair strength of structure.
 - a. Place joints in locations approved by Architect/Engineer.
 2. In general, locate near middle of spans of slabs, beams, and girders unless a beam intersects a girder at this point, in which case, offset joint in girder a distance equal to twice width of beam.
 - a. Locate joints in walls and columns at underside of floors, slabs, beams, or girders and at tops of footings or floor slabs.
 - b. Place beams, girders, brackets, column capitals, haunches, and drop panels at same time as slabs.
 - c. Make joints perpendicular to main reinforcement.
 3. Continue reinforcement across joints.
 4. Clean surface of concrete at joints thoroughly and remove laitance.

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- a. Prior to placing adjoining concrete, dampen (but do not saturate) hardened concrete of construction joints.

B. Joints in slabs-on-grade:

1. Construction joints:

- a. Place keyed dowelled or diamond plate construction joints as indicated on plans and at locations where a slab placement is terminated or interrupted.
- b. Size of placements and sequence of slab placement is Contractor's option, except construction joints shall be located at a control joint location.
- c. Construction joints act as control joints.

2. Control joints:

- a. Provide contraction (control) joints as indicated.
- b. If not shown, provide along column centerlines.
- c. Where column centerline spacing or spacing between column centerlines and walls exceeds 30 FT, provide an intermediate joint(s) at intervals not exceeding 30 FT. Locate joints to produce panels that are as square as possible with the length no more than 1.5 times the width
- d. Also provide joints where change in slab width occurs, such as at block-outs, pits, etc.
- e. If saw cut joints are required or permitted, time cutting properly with set of concrete by one of the following methods
 - 1) Start cutting as soon as concrete has hardened sufficiently to prevent aggregates being dislodged by saw. Complete sawing within 12 hours after placement.
 - 2) The soff cut saw shall be used within two hours of final finishing.
 - a) Cut depth not less than 10 percent of slab thickness with a 1-inch minimum.
 - b) Remove debris in path of cut and under Skid Plate before cutting. Skid Plate must remain flat on surface.
 - c) Use Soff-Cut blades and Skid Plates, using a new Skid Plate with each new blade.
 - d) Install Soff-Cut joint protector at saw-cut intersection prior to cross-cut.

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- e) Remove dry powder without disturbing finish.
- f) Avoid traffic across saw cut until sufficient strength is gained to protect joint edges.
- 3) If an alternate method or timing is proposed, submit detailed plans for review and acceptance.
- 3. Complete before shrinkage stresses become sufficient to produce cracking.
- 4. Isolation joints:
 - a. Provide isolation joints around columns, and between slab on grade and walls.
 - b. Also provide isolation joints around equipment or machinery isolation pads, pits, pipes, etc., unless detailed otherwise.
- C. Expansion joints:
 - 1. Do not permit reinforcement or other embedded metal items bonded to concrete, except dowels in floors bonded on only one side of joints, to extend continuously through expansion joint.
 - 2. Locate expansion joints as indicated.
- D. Acoustic Isolation Joint:
 - 1. Do not permit any reinforcing or other bonded items to extend through joint.
 - 2. Remove all forming material and clean joint thoroughly prior to cover installation. Locate as indicated.
- E. Place sleeves, inserts, anchors, and embedded items required for adjoining work or for its support, prior to concreting.
 - 1. Give Contractors whose work is related to concrete or supported by it ample notice and opportunity to introduce and/or furnish embedded items before concrete placement.
 - 2. Position expansion joint material, waterstops, and other embedded items accurately and support against displacement.
 - 3. Fill voids in sleeves, inserts and anchor slots temporarily with readily removable material to prevent entry of concrete.

3.11 BONDED JOINTS

- A. At construction joints indicated as bonded, obtain bond by one of following methods:

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1. Roughen surface of concrete in an approved manner which will expose aggregate uniformly and not leave laitance, loosened particles of aggregate or damaged concrete at surface.
 - a. Dampen (but do not saturate) hardened concrete of joints in exposed work; joints in middle of beams, girders, joists, and slabs; and joints in work designed to contain liquids.
 - b. Thoroughly cover with a coat of cement grout of similar proportions to mortar in concrete.
 - c. Use grout as thick as possible on vertical surfaces and at least 1/2 IN thick on horizontal surfaces.
 - d. Place fresh concrete before grout has attained its initial set.
2. Prepare joints receiving an adhesive and apply adhesive in accordance with manufacturer's recommendations prior to placing of fresh concrete.
3. Prepare surfaces of joints which have been treated with a chemical retarder in accordance with manufacturer's recommendations prior to placing of fresh concrete.

3.12 SLAB FINISHING

- A. See Section 03 35 00.

3.13 CURING AND PROTECTION

- A. Work includes: Beginning immediately after placement, protect concrete from premature drying, hot or cold temperatures, and mechanical injury, and maintain with minimal moisture loss at relatively constant temperature for period necessary for hydration and hardening of concrete. Materials and methods of curing subject to approval.
- B. Preservation of Moisture:
1. Interior Slabs:
 - a. Application of sheet curing materials.
 - b. Application of strippable curing compound.
 - 1) Submit written approval from floor covering manufacturer prior to use.
 - 2) Apply in accord with recommendations of manufacturer immediately after water sheen, which may develop after finishing, has disappeared.
 - 3) Apply continuous film at manufacturer's specified rate.

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- 4) Completely remove prior to application of floor covering material.
 2. Other concrete surfaces not in contact with forms apply one of following procedures immediately after completion of placement and finishing:
 - a. Ponding or continuous sprinkling.
 - b. Application of absorptive mats or fabric kept continuously wet.
 - c. Application of sand kept continuously wet.
 - d. Continuous application of mist spray, not exceeding 150 degF.
 - e. Application of sheet curing materials.
 - f. Application of other moisture-retaining covering as approved.
 - g. Application of curing compound.
 - 1) Apply in accord with recommendations of manufacturer immediately after water sheen, which may develop after finishing, has disappeared.
 - 2) Apply continuous film at manufacturer's specified rate.
 - 3) Do not use on surface against which additional concrete or other material is to be bonded, unless it is proven that curing compound will not prevent bond or positive measures are taken to remove curing compound completely from areas to receive bonded applications.
 3. Minimize moisture loss from surfaces placed against wooden forms or metal forms exposed to heating by sun by keeping forms wet until they can be safely removed.
 - a. After form removal cure concrete until end of time prescribed.
 4. Continue curing in accordance with ACI 318. Seven days for most concrete.
 - a. If tests made of cylinders, kept adjacent to structure and cured by same methods, indicate average compressive strength has reached 70 percent of specified strength, (fc'), moisture retention methods may be terminated.
 - b. If one of curing procedures indicated above is used initially, it may be replaced by one of other procedures indicated any time after concrete is 1-day old, provided concrete is not permitted to become surface dry during transition.
- C. Temperature, wind and humidity:

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1. Cold weather:
 - a. When mean daily outdoor temperature is less than 40 degF maintain temperature of concrete between 50 and 70 degF for required curing period.
 - b. When necessary make arrangements for heating, covering, insulating, or housing concrete work adequate to maintain required temperature without injury.
 - c. Do not use combustion heaters during first 24 hours unless precautions are taken to prevent exposure of concrete to exhaust gases which contain carbon dioxide.
 2. Hot weather:
 - a. When necessary make provision for windbreaks, shading, fog spraying, sprinkling, ponding, or wet covering with a light colored material.
 - b. Take such protective measures as quickly as concrete hardening and finishing operations will allow.
 3. Rate of temperature change:
 - a. Keep changes in temperature of air immediately adjacent to concrete during and immediately following curing period as uniform as possible.
 - b. Do not exceed 5 degF in any 1 hour or 50 degF in any 24-hour period.
- D. Protection from mechanical injury:
1. During curing period, protect concrete from damaging mechanical disturbances, such as load stresses, heavy shock, and excessive vibration.
 2. Protect finished concrete surfaces from damage by construction equipment, materials, or methods, and by rain or running water.
 3. Do not load self-supporting structures in such a way as to overstress concrete.
- E. Protection of slabs-on-grade from frost:
1. Interior slabs exposed to freezing temperatures shall be adequately protected so that frost does not develop in supporting subgrade.

3.14 CONCRETE CLEANING

- A. Clean all Cast-in-Place concrete walls which will remain exposed to view.
1. Including walls which are scheduled for painting.

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2. Areas: All exposed exterior concrete vertical surfaces.

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 03 33 00
ARCHITECTURAL CAST-IN-PLACE (ACIP) CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish all labor, materials, tools, equipment, and services for Architectural Cast-In-Place (ACIP) Concrete, as indicated, in accordance with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. Requirements of this section shall augment general requirements specified in Section 03 11 00, Section 03 21 00, Section 03 31 00, Section 03 31 10 and Section 03 35 00.
- B. Testing:
 - 1. Specified in Section 03 08 13.
- C. Design Reference Sample:
 - 1. Definition: Sample of approved ACIP color, finish and texture, pre-approved by Architect.

1.3 MOCK-UP

- A. Produce a Mock-up panel approximately 16 FT² for on-site review by Architect/Owner.
 - 1. For final approval of colors and textures and for quality assurance of subsequent work.
 - 2. Mock-up may be incorporated into the final work if approved.
- B. Requirements:
 - 1. Incorporate full scale details of architectural features, finishes, textures, and transitions to adjacent materials.
 - 2. Mock-up to be representative of the finished work in all respects including: colors, finishes, textures, anchors, connections, flashings, and joint fillers as accepted on the final Shop Drawings.
 - 3. Build Mockup to comply with following requirements, using materials indicated for completed work:
 - a. Locate where indicated or, if not indicated, as directed by Architect.

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- b. Maintain Mock-up during construction in an undisturbed condition as a standard for judging the completed Work.
- c. Damage part of an exposed-face surface for each finish, color, and texture, and demonstrate adequacy of repair techniques proposed for repair of surface blemishes.
- d. Obtain approval of Mock-up before starting subsequent work.
- e. Remove Mock-up when directed.

1.4 SUBMITTALS

A. Shop Drawings:

- 1. Shop drawings of forms for all exposed surfaces showing surface details, jointing of facing panels, locations of form ties, and any necessary alignment bracing.

B. Product Data:

- 1. Mix Design:
 - a. See Section 03 31 00.

C. Samples:

- 1. Sample:
 - a. Purpose: For pre-selection of colors and textures:
 - b. Minimum Size: 18 x 18 IN.
- 2. Mock-up; Refer to 1.3 of this document.

D. Project Information:

- 1. Test reports.
- 2. Design Mixes: For each concrete mix including compressive strength and water-absorption tests.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Other materials listed:

- 1. Base:
 - a. As indicated in Section 03 31 00.

B. Other manufacturers desiring approval comply with Section 00 26 00.

2.2 CONCRETE MATERIAL

A. General:

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1. Refer to Section 03 31 00 for general requirements and material quality standards.
 2. Comply with the following additional requirements listed below.
- B. Portland Cement, or equivalent:
1. Color:
 - a. As necessary to reproduce coloration of Design Reference Sample.
- C. Supplementary Cementitious Materials:
1. Fly ash, silica flume and ground slag.
- D. Aggregates:
1. Use normal weight, ASTM C33, aggregates for ACIP concrete.
 - a. Lightweight aggregates, ASTM C330, are not allowed for ACIP.
 2. Stockpile aggregates for each type exposed finish from a single source for entire project.
 3. Color:
 - a. To match selected Design Reference Sample.
- E. Coloring Admixture:
1. ASTM C979, synthetic or natural mineral-oxide pigments or colored water-reducing admixtures, temperature stable and non-fading.
 2. Lime and alkali resistant.
 3. Limit type and amount used so as not to reduce quality of concrete.
 4. Color: As required by Design Reference Sample.

2.3 REINFORCING MATERIALS

- A. Reinforcement:
1. Specified in Section 03 21 00.

2.4 CLEANING MATERIALS

- A. Cleaning Products:

2.5 MIXES

- A. General:
1. Refer to Section 03 31 00 for general requirements.
 2. Comply with the following additional requirements listed below.

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B. Mixing:

1. For concrete of a desired color, use same mixture proportions throughout.
2. Avoid volumetric changes in material proportions from batch to batch.
3. Use only:
 - a. One type and brand of cement from same mill.
 - b. One source and maximum size of coarse aggregate.
 - c. One source of fine aggregate.
 - d. One placing process.

C. Air-entrain Architectural CIP Concrete scheduled for exterior exposure.

1. Maximum water-cement ratio: 0.46 by weight.

D. Uniformity of final surfaces:

1. Unless plaster coat finish or final painting of surfaces is required, maintain designated colors and uniformity of color.

2.6 FORM MATERIALS

A. General:

1. Refer to Section 03 11 00 for general requirements.
2. Comply with the following additional requirements listed below.

B. Form Ties

1. Material: Stainless steel snap ties.

C. Form Sealants:

1. Use non-staining type sealant.

D. Form Facing Materials:

1. General:
 - a. As required to reproduce finish on Design Reference Sample.
2. Smooth as-cast finish:
 - a. Use smooth forms, liner sheets, or prefabricated panels, true to line, in order that surfaces produced will require little dressing to arrive at true surfaces.

2.7 FABRICATION - FORMS

A. General:

1. Refer to Section 03 11 00 for general requirements.

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2. Comply with the following additional requirements listed below.
- B. Design:
1. Design forms to produce required finish or finishes.
 2. Limit deflection of facing materials between studs as well as deflection of studs and walers to 0.0025 times span, or as otherwise indicated.
 3. Design forms to permit easy removal.
 4. Use only wooden wedges.
- C. Secure liner panels in forms by cementing or stapling, but not by methods which will permit impressions of nail heads, screw heads, washers, or like to be imparted to surface of concrete.
- D. Seal edges of liner panels to prevent bleeding of grout.

PART 3 - EXECUTION

3.1 FORM WORK

- A. Do not reuse forms if there is any evidence of surface wear or defect which would impair quality of surface.
1. Thoroughly clean and properly coat forms before reuse.
- B. Observe formwork continuously while concrete is being placed to see that there are no deviations from desired elevation, alignment, plumb, or camber.
1. If during construction any weakness develops and false work shows undue settlement or distortion, stop work and remove affected construction if permanently damaged.
 2. Strengthen false work.

3.2 PLACING OF CONCRETE

- A. Comply with general requirements specified in Section 03 31 10.
- B. Where a smooth rubbed or similar finish is required, work coarse aggregate back from forms, leaving a full surface of mortar avoiding production of surface voids.
- C. Do not allow vibrators to contact formwork for exposed concrete surfaces.
- D. Consolidate concrete by vibrating the forms or by other approved methods that produce an acceptable finish.

3.3 REMOVAL OF FORMS

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- A. Comply with general requirements specified in Section 03 31 10.
- B. Do not pry against face of concrete.
- C. Repair finish defects including form seam marks, fins, projections, large air bubbles, bug-holes etc.

3.4 FINISHES

- A. General:
 - 1. Comply with general requirements specified in Section 03 35 00.
 - 2. Surfaces exposed to construction activity will be protected in place to prevent any alteration in the concrete appearance.
 - 3. Finished faces: Free of joint marks, grain, and other obvious defects.
 - 4. Corners: Uniform, straight and sharp.
- B. Exposed Face and Edge Surfaces:
 - 1. Provide uniform color and texture for vertical and horizontal surfaces to match approved mock-up.

3.5 PATCHING FINISHES

- A. General:
 - 1. Total patched area may not exceed 1 in 500 of surface.
 - a. This is in addition to form tie patches, if ties are permitted to fall within as-cast areas.
 - 2. Closely match color and texture of surrounding surfaces.
 - a. Determine mix formula for patching mortar by trial to obtain a good color match with concrete when both patch and concrete are cured and dry.
 - b. After initial set, dress surfaces of patches manually to obtain same texture as surrounding surfaces.

3.6 CURING PATCHES

- A. Cure patches in architectural concrete surface for 7 days.
 - 1. Protect from premature drying.

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PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 03 35 00

CONCRETE FINISHING AND REPAIR OF SURFACE DEFECTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish all labor, materials, tools, equipment, and services for Concrete Finishing and Repair of Surface Defects, as indicated, in accordance with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. Floor finish tolerances:
 - 1. Follow F-Number System as defined in ASTM E1155.
 - a. Floor Flatness F-Number: Ff defines maximum floor curvature allowed over 24 IN computed on basis of successive 12 IN elevation differentials.
 - b. Floor Levelness F-Number: Fl defines relative conformity of floor surface to a horizontal plane measured over a 10 FT distance.
 - c. Above number pair to be stated in form: Ff/Fl.
 - d. Specified overall value is enumerated and is based on composite of all measured values in a placement.
 - e. Minimum local value (MLV) describes flatness or levelness below which repair or replacement is required. MLV is based on individual placement and applies to minimum local area not crossing construction or control joints.
- B. Trial concrete panels:
 - 1. Provide trial panels to permit evaluation of finishing properties and appearance of concrete proposed for use.
 - 2. Panels size: 8 x 8 FT, of specified thickness, and made with specified materials and proportions, using equipment and personnel comparable with those to be employed on work.

HDR

San Bernardino Transit Center Generator Modification

Omnitrans

City of San Bernardino

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3. Demonstrate concrete capable of being finished at a slump not exceeding that specified.
4. Construct panels and secure approval prior to proceeding with finish in specified location.
5. Approved panels shall serve as standards by which corresponding finishes in structure will be accepted or rejected.
6. Construct panels at approved location, not as part of structure. Protect from construction operations, weather, and damage until acceptance of completed concrete work. Remove from site when directed.
 - a. Provide one 2 IN thick approved panel for each slab finish specified. Panel(s) shall be on grade.
 - b. Provide one 2 IN thick approved panel for smooth form finish. Panel shall be vertical.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Bonding agent: Approximately one (1) part Portland cement, or equivalent, to one (1) part fine sand passing a No.30 mesh sieve. Mix to consistency of thick cream.
- B. Patching compound: Same materials and approximately same proportions as used for concrete, except omit coarse aggregate. Shall consist of not more than one (1) part Portland cement, or equivalent, to two and one half (2-1/2) parts sand loose volume. For exposed concrete, part of Portland cement, or equivalent, shall be white to produce a color matching color of surrounding concrete, as determined by a trial patch. Add no more water than necessary for handling and placing. Mix compound in advance and allow to stand with frequent manipulation, without addition of water, until it has reached stiffest consistency that will permit placing.
- C. Grout for grout cleaned rubbed finish: Mix one (1) part Portland cement, or equivalent, and one and one-half (1-1/2) parts fine sand with sufficient water to produce a grout with a consistency of thick paint.

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- D. Grout for cork floated rubbed finish: Mix one (1) part Portland cement, or equivalent, and one (1) part fine sand with sufficient water to produce a stiff grout.
- E. Proprietary materials: At Contractor's option, proprietary compounds for adhesion, patching, or finishing may be used in lieu of or in addition to foregoing grouts. Use such compounds in accordance with manufacturer's recommendations.

PART 3 - EXECUTION

3.1 FINISHING - GENERAL

- A. After removal of forms, repair and give surfaces of concrete finishes indicated.
 - 1. Top surface of slabs not included.
- B. Unspecified finish: If finish is not designated, use following finishes as applicable:
 - 1. Unpainted concrete surfaces not exposed to public view: Rough form finish.
 - 2. Unpainted concrete surfaces exposed to public view: Smooth form finish.
 - 3. Concrete surfaces to receive paint: Grout cleaned rubbed finish.
 - 4. Unformed surfaces (except slabs): As indicated.

3.2 REPAIR OF SURFACE DEFECTS

- A. Repair surface defects immediately after form removal. Remove honeycombed and other defective concrete down to sound concrete. Chip if necessary to make edges perpendicular to surface or slightly undercut. No feather edges will be permitted. Dampen area to be patched and an area at least 6 IN wide surrounding it to prevent absorption of water from patching compound. After surface water has evaporated from area to be patched, brush bonding agent into surface. When bonding agent begins to lose water sheen, apply patching compound. Thoroughly consolidate compound into place and strike off so as to leave patch slightly higher than surrounding surface. To permit initial shrinkage, leave undisturbed for at least 1 HR before final finish.

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Keep patched area damp for 7 days. Do not use metal tools in finishing a patch which will be exposed.

- B. Tie holes: Unless stainless steel, non-corrosive, or acceptably coated ties are used, tie holes shall be filled. Clean and thoroughly dampen tie holes; fill solid with patching compound.

3.3 AS-CAST FINISHES

- A. Rough form finish: No selected form facing materials are specified for rough form finish surfaces. Concrete surfaces must conform to tolerances in Section 03 11 00 "Concrete Formwork." Patch defects and tie holes. Chip or rub off fins exceeding 1/4 IN in height. Otherwise, leave surfaces with texture imparted by forms.
- B. Smooth form finish: Use form facing material to produce a smooth, hard, uniform texture on concrete. It may be plastic coated plywood, metal, plastic liners, or other approved material capable of producing desired finish. Arrange facing material orderly and symmetrical, with number of seams kept to practical minimum. Support by studs or other backing capable of preventing excessive deflection. Do not use material with raised grain, patches, or other defects which will impair texture of concrete surface.
1. Patch tie holes and defects. Remove fins completely.
 2. When surface texture is impaired and form joints misaligned by more than 1/8 IN grind bushhammer, or correct affected concrete as directed by Architect. Slurry grout areas evidencing minor mortar leakage to match adjacent concrete. Repair major mortar leakage as a defective area.
- C. Special architecture finish: Produce finish in accord with requirements of Section 03 33 00, Architectural Concrete.
- D. Finishing of related unformed surfaces: (Except Slabs).
1. Strike smooth tops of walls or buttresses, horizontal offsets, and similar unformed surfaces occurring adjacent to formed surfaces after concrete is placed.
 2. Float to a texture reasonably consistent with that of formed surfaces.

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- c. Floor finish tolerances Ff/FI conforms to that specified for particular finish and minimum local valves are not less than 75 percent of the floor finish tolerance specified.
- 4. Accumulated deviation from intended true plane of finished surface does not exceed 1 IN.
- 5. Accuracy of floor finish does not adversely affect installation and operation of movable equipment, floor supported items or items fitted to floor (doors, tracks, etc.).

C. Finishes:

- 1. Scratched finish: After concrete has been placed, consolidated, struck off, and leveled to a Ff15/FI13 tolerance, roughen surface with stiff brushes or rakes before final set.
- 2. Floated finish: After concrete has been placed, consolidated, struck off, and leveled, do not work further until ready for floating. Using a magnesium float, begin floating when water sheen has disappeared and surface has stiffened sufficiently to permit operation. During or after first floating, check planeness of entire surface with a 10 FT straightedge applied at not less than two different angles. Cut down high spots and fill low spots during this procedure to produce a surface within Ff20/FI15 tolerance throughout. Refloat slab immediately to a uniform sandy texture.
- 3. Troweled finish: First float-finish surface. Next power trowel, and finally hand trowel. First troweling after power floating shall produce a smooth surface which is relatively free of defects but which may still indicate some trowel marks. Perform additional trowelings by hand after surface has hardened sufficiently. Final trowel when a ringing sound is produced as trowel is moved over surface. Thoroughly consolidate surface by hand troweling. Leave finished surface essentially free of trowel marks, uniform in texture and appearance and plane to an Ff25/FI20 tolerance. On surfaces intended to receive floor coverings, grind off defects which would indicate through floor covering. On surfaces intended to receive waterproofing membranes grind off defects that might tear or otherwise damage membrane.

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4. Broom or belt finish: Immediately after concrete has received float finish, give it a coarse scored texture by drawing a broom or burlap belt across surface transverse to slope or traffic flow.
5. Non-slip slab finish:
 - a. Aggregate: Crushed ceramically bonded aluminum oxide particles. Apply at 25 LB per 100 SF.
 - b. Blend aggregate with Portland cement, or equivalent, in proportions recommended by manufacturer of aggregate.
 - c. Give surface a float finish.
 - d. Apply approximately two-thirds of blended material for required coverage to surface by a method that ensures even coverage without segregation. Begin floating immediately.
 - e. After material has been embedded by floating, apply remainder of blended material to surface at right angles to previous application. Make second application heavier in areas not sufficiently covered by first application. Follow with second floating immediately.
 - f. After selected material has been embedded by two floatings, complete operation with a broomed finish.

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 05 05 05
GALVANIC CORROSION PROTECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish all labor, materials, tools, equipment, and services for Galvanic Corrosion Protection, as indicated, in accordance with provisions of Contract Documents.
- B. Use information in this Section to coordinate, select and apply products listed in other Sections for purposes of Galvanic Corrosion Protection.
- C. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. Provide galvanic corrosion protection:
 - 1. Appendix C, SMACNA Sheet Metal Manual –6th. Edition.
 - 2. ASTM G82 and ASTM STP576.

1.3 GALVANIC CORROSION POTENTIAL

- A. Galvanic Scale: Less Noble, electropositive or anodic metals which corrode more readily are at top of scale. Those that are more electronegative or cathodic, Noble, are at bottom of scale.

GALVANIC SCALE	
Anodic / Corroded End / Less Noble Materials	
	Zinc
	Aluminum
	Galvanized Steel
	Cadmium
	Mild Steel / Wrought Iron
	Cast Iron
	Stainless Steel, Types 304 & 316 (active)
	Lead-tin Solder
	Lead
	Brass / Bronze
	Copper
	Stainless Steel, Types 304 & 316 (Passive)

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Cathodic / Protected End / Noble Materials

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Avoid contact between metals that are not adjacent in the scale.
- B. Do not couple a small exposed area of a less noble material with a large area of a more noble material.
- C. Coat noble metal with a suitable paint or other non-metallic coating or coat both surfaces at their interface with zinc chromate or bituminous coating.
- D. Separate the metals by tape, gasket, waterproof paper, elastomeric sheet, sealant or other non-absorptive, non-conductive material.
- E. Do not allow moisture run-off from noble material to drain onto less noble material.
- F. Do not use copper nails for fastening galvanized steel roof panels .
- G. Do not use galvanized steel nails on copper roofing.
- H. Do not use galvanized bolts, nuts or washers on stainless steel components.

3.2 METALS EMBEDDED IN CONCRETE

- A. Hot-dip galvanized with bituminous paint.
 - 1. Use at exterior and interior areas exposed to weather or high humidity.
- B. Non-galvanized steel with bituminous paint:
 - 1. Use at interior areas with low or ordinary humidity.
 - 2. Avoid direct embedment where exposed to weather or high humidity.
- C. Aluminum:
 - 1. Avoid direct embedment where exposed to weather or high humidity.
 - 2. Use of uncoated or uncovered aluminum in structural concrete is prohibited.
 - 3. Use of water or admixtures with deleterious amounts of chloride ions when aluminum is embedded in concrete is prohibited.

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PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 05 12 10
STRUCTURAL STEEL

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish all labor, materials, tools, equipment, and services for Structural Steel, as indicated, in accordance with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. Structural steel work covered herein shall be fabrication and erection of steel framing and bracing members including connections and steel material either supporting or connected to steel members shown on structural plans and not specified in other sections.
- B. Quality standards latest edition of the following standards plus any corresponding published revisions at the time of bidding shall be the applicable standard. The Local Building Code shall govern when conflicts occur.
 - 1. Local Building Code.
 - 2. American Institute of Steel Construction (AISC):
 - a. ANSI/AISC 360 "Specification for Structural Steel Buildings" (referred to herein as the AISC Specification).
 - b. Code of Standard Practice for Steel Buildings and Bridges (referred to as AISC Code of Standard Practice).
 - c. Quality Certification Program.
 - 3. American Welding Society:
 - a. Structural Welding Code - Steel ANSI/AWS-D1.1 (referred to herein as the AWS Code). The AWS Code shall govern the techniques and quality of welding and testing procedures. Statements contained in the AWS Code requiring information to Bidders and/or Contract Documents to define nondestructive testing or statements defining responsibilities and obligations for services and payment shall be disregarded.
 - 4. Research Council on Structural Connections: "Specifications for Structural Joints Using High Strength Bolts" (referred to herein as the RCSC Specification).

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5. Steel Structures Painting Council (SSPC): Steel Structures Painting Manual Vol. 2, "System and Specifications" (referred to herein as the SSPC Specification).

C. Qualifications:

1. Steel fabricator:

- a. Certified by AISC Quality Certification Program for Structural Steel Fabricators and is designated as AISC Certified Fabricator, Standard for Steel Building Structures.
- b. Fabricators not certified shall have minimum 10 years' experience and shall employ an approved testing agency to inspect fabrication work performed off site. The testing agency shall furnish weekly inspection reports and a final report to the Building Official and the Architect certifying the work was performed in accordance with the specifications and approved shop drawings.

2. Steel erector:

- a. Minimum 10 years' experience in erection of structural steel.
- b. Certified as Certified Steel Erector by AISC quality Certification Program.

3. Certification by other equivalent programs subject to approval of the Structural Engineer.

D. Source quality control:

1. Provide access and facilities for testing agency during shop and field inspections.

E. Testing and inspection: Testing, (except testing to qualify welders and as needed for Contractor's own quality control), will be performed at no cost to Contractor by a Testing/Inspection Agency employed by Owner. Owner's Testing/Inspection Agency may use nondestructive testing methods in addition to visual inspection to verify weld quality. Repair rejected welds as directed by Testing/ Inspection Agency at no additional cost to Owner.

F. Provide testing and inspection agency with sufficient notification and access so that inspection and testing can be accomplished.

G. Previous acceptance of material or finished members by testing and inspection agency or Architect/Engineer shall not prevent its rejection at later date if it does not comply with specifications.

H. Tolerances:

1. Rolling: ASTM-A6.

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2. Fabrication and Erection tolerances: AISC Code of Standard Practice.

1.3 SUBMITTALS

A. Shop Drawings:

1. Indicate details including cuts, copes, connections, holes and welds. Indicate shop and field welds using AWS symbols. Indicate connections where high strength bolts are required.

B. Product Data:

1. Source and certification of quality for high-strength bolts, nuts and washers.
2. Technical data on base plate grout.

C. Project Information:

1. Fabricator's AISC Certification or name of independent testing agency for use by non-certified fabricator along with proof that fabricator has 10 years' experience in fabrication of structural steel for buildings.
2. Inspection reports and certification of shop fabrication by independent testing laboratory for non-certified fabricator.
3. Steel erector's AISC Certification or proof that steel erector has 10 years' experience in erection of structural steel.
4. Welding Procedure Specification (WPS) for shop and field welds.

D. Contract closeout information:

1. Certificate by fabricator that steel was fabricated in accordance with the approved construction documents.
2. Certificate by erector that steel was erected in accordance with the approved erection plans and specifications.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Steel, structural "W" shapes and tee's: ASTM A992 (50 ksi yield point).
- B. Other steel shapes and plate: ASTM A36.
- C. Pipe round: ASTM A53, Grade-B.
- D. Tubing square or rectangular: ASTM A500, Grade-B (46 KSI minimum).
- E. Bolts, nuts, and washers, high-strength. Conform to RCSC Specification
 1. Twist off style, conform to ASTM F1852

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a. Approved bolts:

- 1) Tension control bolt by LeJeune Bolt Company, Burnsville, MN.
- 2) Tru-Tension Fasteners by Nucor Fastener a Division of Nucor Corporation, St. Joe, Indiana.
- 3) Lohr Fasteners by Lohr Structural Fasteners, Humble, TX.

F. Bolts, nuts and washers, standard strength:

1. Bolts: ASTM A307, Type A.
2. Nuts: ASTM A563.
3. Washers plain: ANSI/ASME-B18.22.1.

G. Anchor bolts, high-strength:

1. Bolts or rod for threading: ASTM F1554-105 ksi. meeting supplementary requirement S4. Pretension to load indicated on plans.
2. Nuts, heavy hex: ASTM-A563.
 - a. Up to 1 1/2 IN diameter: Grade D hex
 - b. Over 1-1/2 IN diameter: grade DH Heavy Hex.
3. Washers:
 - a. Hardened Steel: ASTM F436 type 1
 - b. Load indicator type: Direct Tension Indicating Washers as manufactured by TurnaSure LLC of Langhorne, PA or approved equal, Install per manufacturers recommendations
4. Thread tolerance: ANSI/ASME-B18.1, Class 2A.

H. Anchor bolts, standard strength:

1. Bolts or rod for threading: ASTM F1554-36 ksi.
2. Nuts and washers:
 - a. Nuts: ASTM A563.
 - b. Washers plain: ANSI/ASME-B18.22.1.
3. Thread tolerance: ANSI/ASME-B18.1, Class 2A.

I. Welding electrodes:

1. Shielded metal-arc: AWS A5.1 or AWS A5.5, E70XX
2. Submerged-arc: AWS A5.17 or A5.23, F7X-EXXX.
3. Gas metal-arc: AWS A5.18, ER70S-X.

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4. Flux cored-arc: AWS A5.20, E70T-X (except 2, 3, 10, GS).

J. Headed studs and deformed bar anchors:

1. Headed studs (HS)
 - a. Fabricated from cold drawn bar stock conforming to ASTM A 29, grades 1010 through 1020.
 - b. AWS D1.1 type B.
 - c. Minimum Yield strength: 51 ksi.
 - d. Minimum tensile strength: 65 ksi over 3/8 IN diameter.
 - e. Minimum tensile strength: 55 ksi 3/8 IN diameter and under.
2. Deformed anchor bars (DBA): Straight, unless otherwise indicated.
 - a. ASTM A496.
 - b. Minimum yield strength: 70 ksi.
 - c. Minimum tensile strength: 80 ksi.

K. Grout: Pourable.

1. "Duragrout" as manufactured by L&M Construction Chemicals, or equal.
2. Minimum Strength: 4000 PSI at 7 days and 8000 PSI at 28 days.

L. Expansion anchors:

1. Expansion anchors shall be a single-end expansion shield anchor which complies with the descriptive part of Federal Specification FF-S325, Group II, Type 4, Class 1 for concrete expansion anchors. Anchors shall be Hilti Kwik Bolt TZ Expansion anchor by Hilti fastening systems of Tulsa, OK (ICC Report No. ESR-1917) or equal.

M. Adhesive anchors:

1. Threaded rods, bolts, etc., indicated as adhesive anchors into concrete or solid masonry:
 - a. HIT HY-150 MAX - SD adhesive by Hilti Fastening Systems of Tulsa, OK (ICC Report No. ESR-3013) or equal.
 - b. Unless indicated otherwise, adhesive anchor bolt shall conform to HAS - E Standard ISO Class 5.8 by Hilti or equal. Do not field cut rods without engineer's approval.

N. Other manufacturers desiring approval comply with Section 00 26 00.

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2.2 FABRICATION

A. General:

1. Fabricate and assemble material in shop to greatest extent possible.
2. Use A325 bolts, twist-off type, unless otherwise indicated.
3. One sided or other types of eccentric connections not indicated, will not be permitted without prior approval.
4. Bevels for field welds may be flame cut provided such cutting is done automatically. Leave free of burrs and slag.
5. Grind flush web fillets at webs notched to receive backup plates for flange groove welds.
6. Flame cut edges of stiffener plates at field or shop butt welds. Do not shear.
7. Accurately mill bearing ends of columns.
8. Trusses, beams and girders over 50 FT in length shall be cambered in an amount required by the Architect. Members less than 50 FT in length shall be cambered when indicated on the drawings or otherwise fabricate such that after erection any natural camber due to rolling or assembly is upward.
9. Cut, drill, or punch holes at right angles to surface of metal.
 - a. Do not make or enlarge holes by burning.
 - b. Make holes clean cut, without torn or ragged edges.
 - c. Remove outside burrs resulting from drilling or reaming operations with tool making 1/16 IN bevel.
 - d. Provide holes in members to permit connection of work of other trades.
10. Make allowance for draw in of tension bracing.
11. Make splices only as indicated.
12. Headed stud type shear connectors (H.S.) and deformed bar anchors (D.B.A.), on Drawings: Automatically end welded in accordance with AWS Code.
 - a. When headed stud type shear connectors are to be either shop or field applied, clean top surface of beam flanges in shop to remove oil, scale, rust, dirt and other materials injurious to satisfactory welding.
 - b. Fillet welding of headed studs and deformed anchors is not allowed without prior approval.

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- c. Do not weld studs when temperature is below 0 degF or surface is wet with rain or snow.
- d. After welding, remove ceramic ferrules and maintain clean and free from substances which would interfere with function as anchor or bond of deformed anchor bars.
- e. Quality control: Weld minimum of 2 studs at start of each production period to determine proper generator, control unit, and stud welder settings.
 - 1) These studs shall be capable of being bent 45 degrees from vertical without weld failure. These studs shall not be included as a part of the required construction.
 - 2) All production studs shall be sounded by a sharp blow with a hammer.
 - 3) If, after welding, a stud does not ring when struck by a hammer or visual inspection reveals that sound weld or full 360 degree fillet has not been obtained for a particular stud, that stud shall be struck with hammer and bent approximately 15 degrees off perpendicular to nearest end of beam.
 - 4) Studs meeting this test shall be considered acceptable and shall be left in this position.
 - 5) Studs bent beyond 15 degrees shall be considered ineffective and replaced.
 - 6) Studs failing under this test shall be replaced.

B. Welding:

- 1. Welding, techniques of welding employed, appearance and quality of welds, and methods used to correct defective work shall comply with AWS Code, and requirements indicated.
- 2. Test and qualify welding operators and tackers in compliance with AWS Code for position and type of welding to which they will be assigned.
 - a. Conduct tests in presence of approved testing agency.
 - b. Certification within last 12 months from a welding inspector will be acceptable provided samples of welder's work are satisfactory.
 - c. At discretion of testing agency, shop personnel continuously employed at welding process for which they have been qualified may be accepted from older qualification tests.
- 3. Qualify joint welding procedures or test in accordance with AWS qualification procedures.

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4. Before start of welding work, meet with testing agency and welders to review and verify procedures.
5. Comply with AWS Code to minimize shrinkage and distortion stress.
6. Use back-up plates in accordance with AWS Code, extending minimum of 1 IN either side of joint.
7. Make flange welds before making web welds.
8. For manual shielded metal-arc welding: Comply with Article 4.6 of AWS Code.
9. Low hydrogen electrodes: Dry and store electrodes in compliance with AWS Code.
10. Do not perform welding when ambient temperature is lower than 0 degF, or where surfaces are wet or exposed to rain, snow, or high wind, or when welders are exposed to inclement conditions.
11. Before starting welding:
 - a. Carefully plumb and align members.
 - b. Fully tighten bolts.
 - c. Assembly and surface preparation shall comply with AWS Code.
 - d. Preheat base metal to temperature stated in AWS Code.
 - 1) When no preheat temperature is given and base metal is below 32 degF, preheat base metal to at least 70 degF.
 - 2) Maintain temperature during welding.
 - 3) Preheating shall bring surface of base metal within distance from point of welding equal to thickness of thicker part being welded or 3 IN, whichever is greater, to specified preheat temperature.
 - 4) Maintain this temperature during welding.
 - e. Each welder is to provide identifying mark at welds worked on.

2.3 SURFACE PREPARATION AND SHOP-APPLIED COATINGS

A. Surfaces not to be coated:

1. Do not coat the following surfaces:
 - a. Surfaces to be fireproofed with spray-on material.
 - b. Machined surfaces, surfaces adjacent to field welds, contact surfaces of bolt connections where connection is specified as slip critical, and top of top flanges of beams.
 - c. Other members for which no coating is specified.

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2. Clean thoroughly before shipping; remove loose mill scale, rust, dirt, oil and grease.
- B. Hot-dip Galvanized (HDG) members:
 1. Galvanize following members:
 - a. Members set in, or in contact with, exterior surface material, including:
 - 1) Brick ledge angles.
 - 2) Embedded items in exterior surfaces.
 - b. Exterior exposed structure not indicated to be shop otherwise shop finished.
 - c. Other members indicated.
 2. Clean thoroughly before galvanizing.
 3. Galvanize in accordance with ASTM A123.

PART 3 - EXECUTION

3.1 ERECTION

- A. Safety:
 1. Contractor is solely responsible for safety. Construction means and methods and sequencing of work is the prerogative of the Contractor.
- B. Capacity of partially complete construction:
 1. Consider that full structural capacity of many structural members is not realized until structural assembly is complete; That is, until slabs, decks and diagonal braces are installed. Partially complete structural members shall not be loaded out of sequence without an investigation.
 2. Until elements of the permanent lateral bracing system of the structure are complete, temporary lateral bracing for the partially complete structure will be required.
- C. Temporary bracing:
 1. Adequate temporary bracing to provide stability and resist loads to which the partially complete structure may be subjected to including construction activities and operation of equipment is the responsibility of the Contractor.

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2. If not obvious from the drawings, confer with the Architect to identify those structural elements that must be complete before the structure's permanent lateral bracing system is effective. The design of the temporary bracing system must consider the sequence and schedule of placement of such elements and effects of loads imposed on the structural steel frame by partially or completely installed work of other trades. Do not remove temporary bracing until the permanent lateral bracing system is effective.
- D. General:
1. Set base and bearing plates accurately and grout immediately as indicated.
 - a. Use metal wedges, shims or setting nuts as required.
 - b. Pack grout solidly between plate and bearing surface.
 2. Clean bearing and contact surfaces before assembly.
- E. Install A325SC bolts with washers. Install and tighten in accordance with the RCSC Specifications or in accordance with manufacturer's instructions when twist-off bolts are used.
- F. Field weld as specified in paragraph "Welding."
- G. Do not use gas cutting to correct fabrication errors on major members.
1. Gas cutting on minor members may be permitted when members are not loaded, only after approval by Architect.
- H. Tighten and leave in place erection bolts used in welded construction.
- I. Provide beveled washers to give full bearing to bolt head or nut where bolts are to be used on surfaces having slopes greater than 1:20 with a plane normal to bolt axis.
- J. After installation, touch up damaged or abraded areas of primed steel using same materials used for shop priming.
1. Clean field welds, bolted connections and abraded areas before touching up.
- K. After installation, repair galvanized surfaces damaged or abraded using zinc rich paint in accordance with ASTM A780.
1. Surfaces to be repaired with paint containing zinc dust shall be clean, dry, and free of oil, grease, preexisting paint, corrosion, and / or rust.

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2. Surfaces to be repaired shall be blast cleaned to the requirements of SPC SP10 (near white). Where circumstances do not allow blast or power tool cleaning to be used, then hand tools may be used. Cleaning shall meet the requirements of SSPC SP2 (removal of loose rust, mil scale, or paint to the degree specified by hand chipping, scraping, sanding and wire brushing)
3. If the areas /surfaces to be repaired include welds, first remove all weld flux residue and weld spatter by blasting, chipping, grinding, or power scaling.
4. Spray or brush apply the paints containing zinc dust to the prepared surfaces/areas. Apply the paint in accordance with the manufacturer's recommendations in a single application employing multiple passes to achieve a dry film thickness equal to the original zinc coating thickness.

PART 4 - MEASUREMENT AND PAYMENT

- A. Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 05 12 13
ARCHITECTURALLY EXPOSED STRUCTURAL STEEL

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish labor, materials, tools, equipment, and services for Architecturally Exposed Structural Steel, as indicated, in accordance with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. Section covers fabrication and erection requirements in addition to those specified in Section 05 12 10 for structural steel, indicated to be Architecturally Exposed Structural Steel (AESS).
- B. Quality standards, qualifications, source quality control and testing and inspection, specified in Section 05 12 10, shall apply to Architecturally Exposed Structural Steel.
 - 1. Fabricator and erector shall have successfully completed AESS work similar to work indicated for this project.
- C. Tolerances: AISC, Code of Standard Practice for Steel Buildings and Bridges, Section 10, or as noted.
- D. Final design of connections not defined on Contract Documents as specified in Section 05 12 10.

1.3 PRE-INSTALLATION CONFERENCE

- A. Schedule and conduct conference at project site to comply with requirements of Section 01 31 19.
 - 1. Attendees shall include Contractor, Fabricator, Erector, finish painter.
 - 2. Topics for discussion shall include coordination requirements for shipping, special handling, attachment of safety cables, temporary erection bracing, and touch-up painting.

1.4 MOCK-UP

- A. Submit shop drawings for proposed mock-up sample prior to fabrication.
- B. Approved sample shall serve as the basis for acceptance for all AESS assemblies.
- C. Mock-up shall include no less than following;

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1. Plate seam.
2. Butt or miter joint in plate, rolled sections, or both.
3. Welds required for installation.

1.5 SUBMITTALS

A. Shop Drawings:

1. Provide erection drawings indicating AESS members.
2. Details indicating compliance with fabrication and erection requirements, including connections consistent with concepts indicated in drawings.
3. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, showing size, length and type of each weld, and identifying grinding, finish and profile of each weld.
4. Indicate bolts by type, size, finish and length, distinguishing between shop and field bolts, identifying high-strength bolted, direct-tensioned shear/bearing connections, and showing which direction bolt heads are to be oriented.
5. Indicate surfaces and edges exposed and class of surface preparation used.
6. Indicate tolerances and erection requirements as defined in drawings or specified in this section.

B. Product Data:

1. Source and certification of quality for high-strength bolts, nuts and washers.
2. Technical data on base plate grout.

C. Project Information:

1. Fabricator and Erector Qualifications:
 - a. List completed project names and addresses, and names and addresses of their Architects and Owners.
 - b. Fabricator's AISC certification or name of independent testing agency for use by non-certified fabricator.
 - c. Proof fabricator has 10 years' experience in fabrication of structural steel for buildings.
 - d. Steel erector's AISC Certification or proof that steel erector has 10 years' experience in erection of structural steel.

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2. Inspection reports and certification of shop fabrication by independent testing laboratory for non-certified fabricator.
 3. Connection design calculations.
 4. Welding Procedure Specification (WPS) for shop and field welds.
- D. Contract Closeout Information:
1. Certificate by fabricator that steel was fabricated in accordance with approved construction documents.
 2. Certificate by erector that steel was erected in accordance with approved erection plans and specifications.

PART 2 - MATERIALS

2.1 ARCHITECTURALLY EXPOSED STRUCTURAL STEEL

- A. Apply to members open to view.
- B. Epoxy filler:
1. Solvent resistant, two component metal and epoxy compound compatible with required protective coating systems.
 2. Acceptable product:
 - a. Tnemec, 215 Surfacing Epoxy, or equivalent.
- C. Primer:
1. As recommended by finish top coat manufacturer for substrate.

2.2 FABRICATION

- A. Fabricate and assemble in shop to greatest extent possible.
1. Locate field joints at concealed locations unless otherwise indicated.
 2. Detail assemblies to minimize field handling and expedite erection.
- B. Fabricate with exposed surfaces smooth, square and with consistent surface quality.
- C. Fabrication Tolerance: Fabricate steel to one-half of normal tolerances specified in AISC Code of Standard Practice for Steel Buildings and Bridges, Section 10.
- D. Welds:
1. Grind welds smooth.
 2. Groove welds: Make flush to surfaces each side to within + 1/16 IN to – 0 IN of plate thickness.

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- 3. Contouring and Blending of Welds: Oversize fillet welds for grinding to smooth transitions.
- 4. Continuous welds: Uniform size and profile.
- 5. Minimize weld show-through at locations where welding on far side of exposed connection.
- E. Coping and Blocking Tolerance, and Joint Gap Tolerance: Uniform gap of 1/8 IN +/- 1/32 IN.
- F. Fabricate each piece such that piece mark is fully hidden in the final structure or made with such media to permit full removal after erection.
- G. Steel shall be delivered with no mill marks in exposed locations.
 - 1. Mill marks shall be omitted by cutting of mill material to appropriate lengths where possible.
 - 2. Where not possible, fill and grind mark area to a surface consistent with surrounding surface.
 - 3. Filler caulk, or body putty type materials, other than filler metal deposited by welding process, is not acceptable for remedial work.
 - 4. Epoxy filler may be applied to pockets, voids, pitting, or other blemishes on exposed surfaces of interior steel to be painted, including welds.
- H. All edges of sheared, punched or flame-cut steel shall be ground smooth.
- I. Roll members to final curved shape in the shop and tied during shipping to prevent stress relieving.
 - 1. Distortion of web or stem and of outstanding flanges or legs of angles will be visibly acceptable only if not perceived from a distance of 20 FT under any lighting condition.
 - 2. Tolerances for vertical and horizontal walls of regular HHS members after rolling shall be specified dimension +/- 1/2 IN.
- J. Seal weld ends of round and rectangular hollow structural sections with 3/8 IN thick closure plates, and provide continuous sealed welds at angle to gusset plate connections and similar locations where exposed to weather.
- K. Shop Connections: Comply with Section 05 12 10, and for:
 - 1. Bolt Connections: Provide bolt type and finish and align bolt heads as indicated on approved shop erection drawings.

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2. Weld Connections: Comply with AWS-D1.1, and assemble and weld build-up sections by methods maintaining alignment of members without warp exceeding tolerance specified.

2.3 SHOP PRIMING

- A. Shop-prime steel surfaces except surfaces embedded in concrete or mortar, and surfaces to be field welded.
 1. Extend priming of partially embedded members to a depth of 2 IN.
- B. Do not prime surfaces to be high-strength bolted with slip-critical connections if primer does not meet specified AISC slip coefficient.
- C. Surface Preparation: Clean surfaces to be painted by removing loose rust, loose mill scale, and spatter, slag or flux deposits.
 1. Prepare surfaces concealed by other work minimally according to SSPC-P3 Power Tool Cleaning.
 2. Prepare exterior surfaces minimally according to SSPC-P6 Commercial Blast Cleaning.
 3. Coordinate required blast profile with approved paint submittal prior to beginning surface preparation.
- D. Priming:
 1. Apply primer immediately after surface preparation, in accordance with manufacturer's instructions.
 2. Provide a dry film thickness of not less than 2.5 mils and with full coverage of joints, corners, edges and other exposed surfaces.
 3. Stripe paint lap joints, plate edges, corners, crevices, bolts, welds and sharp edges.
 4. Apply two (2) coats of shop primer to surfaces inaccessible after assembly or erection.

2.4 GALVANIZING

- A. Where galvanizing is indicated, apply zinc coating by hot-dip process according to ASTM A123.
 1. Fabricate galvanized assemblies for all field connections made by bolted connections.
 2. Provide galvanized finish in consistent color and surface texture throughout.

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2.5 FINISH PAINTING

- A. Finish painting is specified in Section 09 91 13 for exterior. Verify finish painting will be done in the field, or indicate shop finished.
- B. Finish painting shall be field applied after erection.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify members are free of twist, kinks, gouges or other imperfections which may result in rejection of the appearance of the member.
- B. Replace defective members or correct defects.

3.2 PREPARATION

- A. Provide connections for temporary shoring, bracing and supports only where indicated on approved shop drawings.
- B. Temporary connections not shown on shop drawings shall be made at locations not exposed to view in the final structure.
- C. Handle, lift, and align pieces using padded slings and other protection required to maintain appearance of through process of erection.
- D. Handle to prevent twisting or warping of members.

3.3 ERECTION

- A. Set accurately in locations and to elevations indicated and according to AISC specifications, as specified in Section 05 12 10 and per following:
 - 1. Erection Tolerances: AISC Code of Standard Practice for Steel Buildings and Bridges Section 7, except Section 10, where AESS is located within 20 FT of personnel.
 - 2. Provide field welds complying with the same requirements required for welds during fabrication, including grinding for flush finish conditions.
 - a. Assemble and weld build-up sections by methods maintaining true alignment of axes without warp.
 - b. Verify weld sizes, fabrication sequence and equipment used will limit distortion to acceptable tolerances.
 - 3. Provide bolting complying with same requirements required for bolting during fabrication, including orientation of bolt heads to same side.

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4. Remove run-out tabs, erection bolts and other steel members added to connections to allow for alignment, fit-up or field welding,
 - a. Make remaining surfaces made smooth to match adjacent surfaces.
 - b. Holes for erection bolts shall be plug welded and ground smooth.
 - c. Holes cut to permit field welding shall be filled by procedures to minimize restraint and thermal stress.
5. Ream holes to permit bolts; burning and use of drift pins are not allowed.
6. Replace misaligned connection plates where holes cannot be aligned for acceptable final appearance.
7. Remove and replace welded material deemed inferior to quality of mock-up.
8. Repair only when proposed procedures are approved.

3.4 ADJUSTING AND CLEANING

- A. Clean and touch-up painting of field welds, bolted connections and abraded areas.
 1. Touch-up priming, painting, or both:
 2. Stripe paint lap joints, plate edges, corners, crevices, bolts, welds and sharp edges as required.
 3. Finish to blend with adjacent surfaces and comply with paint manufacturer's instructions.
- B. Galvanized Surfaces: Clean field welds, bolted connections and abraded areas, and repair galvanizing in compliance with ASTM A780.

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 05 50 10
MISCELLANEOUS METAL FABRICATIONS

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish labor, materials, tools, equipment, and services for Miscellaneous Metal Fabrications, as indicated, in accordance with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. Materials and operations standards:
 - 1. AAMA, Architectural Aluminum Manufacturer's Association.
 - 2. AISC, American Institute of Steel Construction.
 - 3. ASTM, American Society for Testing and Materials.
 - 4. AWS, American Welding Society.
 - 5. NAAMM, National Association of Architectural Metals Manufacturers.
 - 6. AISI, American Iron and Steel Institute.

1.3 SUBMITTALS

- A. Shop drawings for fabrication and erection of assemblies to include:
 - 1. Plans and elevations showing all members and connections.
 - 2. Anchors and accessory items.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Materials listed:
 - 1. Base: As noted.
- B. Galvanizing Repair Paint:
 - 1. Base:
 - a. Tnemec.
 - 2. Optional:
 - a. ZRC Worldwide.
 - b. Sherwin-Williams.

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C. Shop Primer:

1. Base:
 - a. As recommended by finish coat manufacturer for substrate.
2. Optional:
 - a. Sherwin-Williams.
 - b. Tnemec.

D. Non-shrink Grout:

1. Base:
 - a. Dayton Superior Corporation.
2. Optional:
 - a. Sauereisen.
 - b. CGM Building Products (Por-Rok).

E. Decorative Bollard Covers:

1. Base:
 - a. Thermoprene.

F. Welded Wire Mesh & U-edging

1. Base:
 - a. McNichols Quality 1 Square Welded Wire Mesh

G. Other manufacturers desiring approval comply with Section 00 26 00.

2.2 MATERIALS

A. Structural steel:

1. Steel, Structural W shapes and tee's: ASTM-A992 (50ksi yield point)
2. Other steel shapes and plate: ASTM-A36
3. Pipe – Round ASTM A53 Grade B
4. Tubing square or rectangular: ASTM-A500, Grade-B (46ksi minimum)

B. Cast steel: ASTM-A27, Grade-65-35; and ASTM-A148, Grade-80-50.

C. Steel forgings: ASTM-A668.

D. Bolts: ASTM-A307, ASTM-A325, ASTM-A354.

E. Filler metal: AWS Standards.

F. Cast iron: ASTM-A48, Class 30, minimum 206 850 kPa 30,000 PSI tensile.

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- G. Malleable iron: ASTM-A47 and ASTM-A197.
- H. Aluminum: ASTM-B308 for particular alloy in standard shapes and extrusions, ASTM-B26 for castings.
- I. Stainless steel: ASTM-A484 and ASTM-A276.
1. Concealed: Type 302 or Type 304.
 2. Exposed: Type 304.
 - a. Finish: ASTM-A480 AISI finish #4, unless otherwise indicated.
 3. Exposed: Type 316.
 - a. Finish: ASTM-A480 AISI finish #4, unless otherwise indicated.
- J. Anchorage devices - masonry:
1. Standard manufactured items.
 2. Lead expansion shields for machine screws and bolts 1/4 IN and smaller: Head out embedded nut type.
 3. For machine screws and bolts larger than 1/4 IN: Manufacturers' standard.
 4. Bolt anchor expansion shields for lag bolts: Zinc alloy, long shield anchors.
 5. Bolt anchor expansion shields for bolts: Closed end bottom bearing type.
 6. Anchor to embed or set device in setting compound or epoxy grout where shown.
- K. Fasteners:
1. Galvanized or stainless where built into exterior walls.
 2. Select fasteners for type, grade and class required.
 3. Bolts and Nuts: Regular hexagon head ASTM-A307, Grade-A.
 4. Lag Bolts: Square or octagonal head type.
 5. Machine Screws: Cadmium plated steel.
 6. Wood Screws: Flat head carbon steel.
 7. Plain Washers: Round, carbon steel.
 8. Lock Washers: Helical spring carbon steel.
- L. Non-shrink grout:
1. Compressive strength: 48.2 MPa 9000 PSI at 7 days.
 2. Base Product: 1107 Advantage Grout by Dayton Superior.

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M. Abrasive warning tape:

1. Self-adhering, tape with slip resistive mineral surface.
2. Color: Safety Yellow.
3. Width: 2 IN, except where noted otherwise.
4. Tape Type 2:
 - a. Base Product: Safety-Walk 530 Conformable by 3M, or equivalent.
 - b. Backing: Aluminum foil.
 - c. Thickness: 0.035 IN.

N. Welded Wire Mesh:

1. Square Welded Wire Mesh
2. 0.0630" Wire
3. Pre-Galvanized
4. 88% Open Area
5. 0.26"/sf
6. 1" square mesh

O. U-edging

1. Galvanized Steel
2. Provide around entire perimeter of Welded Wire Mesh Ceiling.

P.

2.3 FABRICATION

- A. Form to shapes indicated with straight lines, sharp angles, and smooth curves.
- B. Drill or punch holes with smooth edges for temporary field connections and attachment of work by other trades.
- C. Make permanent shop and field connections with continuous fillet type welds.
- D. Grind exposed welds smooth.
- E. Conceal fastenings where practicable.
- F. Shop fabricate in as large assemblies as practicable.
- G. Meet requirements specified under Structural Steel for fabricating items of structural nature or use.

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H. Qualify welding processes and welding operators in accordance with AWS.

2.4 SURFACE PREPARATION AND SHOP-APPLIED COATINGS

A. Items not to receive coatings:

1. Surfaces scheduled to be fireproofed with spray-on material.
2. Machined surfaces.
3. Surfaces adjacent to field welds.
4. Contact surfaces of bolt connections at slip connections.
5. Top flanges of beams to receive shear connectors.
6. Items for which no coating or field finish is specified.

B. Shop Primer for Interior (non-wet) Items:

1. Primer: Coordinate with finish systems specified in Section 09 91 13.
2. Apply primer for interior finish paint to following surfaces not receiving other coating:
 - a. Surfaces exposed on interior.
3. Clean thoroughly before priming; remove mill scale, rust, dirt, oil, and grease in accordance with SSPC-SP3.
4. Apply in accordance with paint manufacturer's instructions.
 - a. Apply minimum 0.002 IN, dry film thickness.
5. Finish Paint (applied in field): Specified in Section 09 91 13.

C. Hot-dip Galvanized (HDG) Coating for Exterior items:

1. Galvanize (HDG) the following items:
 - a. Items to be installed on site, roof or other areas that are outside of building enclosure walls. This shall include items "attached to" exterior walls of building.
 - b. Items to be installed in wet or humid (>70% RH) areas of building.
 - c. Partial listing of items to receive HDG:
 - 1) Masonry lintels, ledge angles and shelf angles.
 - 2) Pipe Bollards.
 - 3) Exterior Ladders, Stairs and railings.
 - 4) Exterior gratings and substructure.
 - 5) Exterior equipment supports.

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- 6) Similar items which are exposed to weather or built-in to Exterior walls.
- 7) Other items indicated.
- 2. Clean thoroughly before galvanizing.
- 3. Galvanize in accordance with ASTM-A123.
- D. Galvanizing repair coating:
 - 1. Tnemec Series 94-H20 Hydro-Zinc.
 - 2. ZRC Worldwide, Galviline 221.
 - 3. Sherwin Williams Zinc Clad III HS 100.

2.5 PAINTING

- A. Paint exterior steel items (in field) as Specified in Section 09 91 13.
- B. Paint interior steel items (in field) as Specified in Section 09 91 13.

2.6 METAL FABRICATIONS

- A. General:
 - 1. Supply items required to complete construction and installation.
 - 2. Minimum Workmanship Standards (unless noted otherwise): Class 1 (Architectural) per NAAMM AMP-555, Code of Standard Practice for the Architectural Industry.
 - 3. Anchorage accessories:
 - a. Items required to secure wood to metal, wood to masonry, metals to masonry or concrete, metal to metal or metal to other items.
- B. Metal Gratings:
 - 1. Complying with NAAMM Metal Bar Grating Manual.
 - 2. Material and Thickness (except were otherwise indicated):
 - a. Galvanized steel, nominal 1-1/2 IN thick.
 - 3. Load Capacity: Support minimum uniform load of 9575 Pa 200 PSF.
 - 4. Provide hold down clips.
 - 5. Furnish with frames and support items of comparable material and finish.
- C. Steel Support Angles, Members and Loose Lintels:
 - 1. ASTM-A36 steel, Sizes and configurations as indicated.
 - 2. Items to be HDG (galvanized):

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- a. Items to be permanently exposed to weather, high-humidity, or wet conditions.
 - b. Items set into exterior walls.
- 3. Shop Prime interior items (in non-wet areas).
- D. Miscellaneous Equipment Supports:
 - 1. ASTM A36 steel, Sizes and configurations as indicated.
 - 2. Examples of items included:
 - a. Supports for Folding Partitions, Operable Walls, Coiling Doors and Grilles.
 - b. Supports for ICU Doors.
 - c. Support of Medical Equipment including Surgical Lights, Power Columns. And other items indicated.
 - d. Ceiling hung toilet partitions.
 - e. Other miscellaneous support items as indicated.
 - 3. Items to be hot dipped galvanized:
 - a. Items to be permanently exposed to weather, high-humidity, or wet conditions.
 - b. Items set into exterior walls.
 - 4. Shop Prime interior items (in non-wet areas).

2.7 BOLLARDS

- A. General:
 - 1. Provide where indicated.
 - 2. Supply items required to complete construction and installation.
 - 3. Minimum Workmanship Standards (unless noted otherwise): Class 1 (Architectural) per NAAMM AMP-555, Code of Standard Practice for the Architectural Industry.
- B. Type DB-1 (Steel Bollards with Decorative Cover):
 - 1. Assembly including a concrete-filled steel pipe with a decorative cover sleeve.
 - 2. Steel pipe bollard:
 - a. 6 IN diameter extra strength, HDG (galvanized), steel pipe.
 - b. Length: Unless otherwise indicated; minimum 42 IN projection above ground and 36 IN embedment into concrete.

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- c. Fabricate with welded on anchors.
- d. Fill with 3000 PSI concrete, flush at top.
- 3. Decorative Bollard Covers:
 - a. Description: 1/8 IN thick, HDPE.
 - b. Size as appropriate for pipe.
 - c. Color: To be selected by Architect.
 - 1) 5-year warranty for color-fastness, cracking and UV-resistance.
 - d. Dual reflective stripes near top of cover.
 - e. Base Product: Bollardgard by Thermoprene, or equivalent.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Verify suitability of substrate to accept installation.
- B. Installation constitutes acceptance of responsibility for performance.
- C. Ensure that adequate Wall Backing has been installed where required for wall-mounted items specified in this Section.

3.2 INSTALLATION

- A. General:
 - 1. Set work level, true to line, plumb.
 - 2. Shim and grout as necessary.
 - 3. Weld field connections and grind smooth.
 - 4. Where practical, conceal fastenings.
 - 5. Secure metal to wood with lag screws of adequate size with appropriate washers.
 - 6. Secure metal to concrete with embedded anchors, setting compounds, caulking and sleeves, or setting grout.
 - a. Use expansion bolts, toggle bolts, or screws for light duty service.
 - 7. Meet structural requirements for erecting items of structural nature.
 - 8. Do not field splice fabricated items unless size requires splicing.
 - 9. Weld splices.
 - 10. Provide fabricated items complete with attachment devices as required to install.

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B. Galvanic Repair:

1. After galvanized units have been erected and anchored apply galvanizing repair paint in accordance with manufacturer's recommendations.
2. Surface preparation: Remove contaminates in accordance with SSPC SP-1.

C. Bollards:

1. Direct-buried: Prepare hole in earth which is at least:
 - a. Hole Depth: 6 IN deeper than embedment length specified for bollard.
 - b. Hole Diameter: 24 IN diameter for 6 IN diameter pipes.
 - c. Set pipe bollards plumb and to the exposure height indicated.
2. Surface-Bolted and other means of attachment: Install as detailed.
3. Fill annular space with concrete fill having a compressive strength of at least 20,685 kPa 3000 PSI.
4. Paint or cover with decorative sleeves as scheduled.

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 09 91 13
EXTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish all labor, materials, tools, equipment, and services for Exterior Painting, as indicated, in accordance with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. Definitions:
 - 1. "Paint" and "painting" refer to applied coatings.
 - 2. Mechanical work and equipment: Work included in Mechanical Specification Divisions.
 - 3. Electrical work and equipment: Work included in Electrical Specification Divisions.
- B. Work included:
 - 1. Exterior surfaces scheduled to be painted, unless indicated to be painted under other sections.
 - 2. Except for colored, split-face, patterned, ground-face, glazed, and other concrete masonry units with integral architectural finish; paint exposed exterior and on-site concrete masonry unit surfaces, including areaway walls, backside faces of parapets, screen walls, and retaining walls.
 - 3. Mechanical and electrical work:
 - a. Exterior equipment and items not completely factory finished.

1.3 SUBMITTALS

- A. Product Data:
 - 1. Manufacturer's data for each paint type to be applied indicating conformance to specifications.

Default. Finishes scheduled in the Drawings.

- B. Samples:
 - 1. Three 8 1/2 IN x 11 IN samples of each color and finish as noted in Drawing I-001 Interior Notes & Finish Legend.

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- 2. Gloss samples.
- C. Contract Closeout Information:
 - 1. Maintenance data.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Provide paint as product of one manufacturer as far as possible.
- B. Paint, stain, and coating systems listed are Sherwin Williams unless noted otherwise.
 - 1. Use comparable performance and aesthetic requirements for paints by Optional manufacturers.
- C. Paints:
 - 1. Base:
 - a. Sherwin-Williams.
 - 2. Optional:
 - a. PPG Architectural Finishes.
 - b. Benjamin Moore.
 - c. Glidden Professional.
- D. Other manufacturers desiring approval comply with Section 00 26 00.

2.2 MATERIALS

- A. Paints and stains: As shown on drawings.
 - 1. Unscheduled items: Bring to the attention of Architect.
 - 2. Colors:
 - a. As shown on drawings.
 - 3. Gloss range: Refer to Part 3.10 for schedule. MPI Standards as measured in accordance with ASTM D523:
 - a. Gloss Level 1 (Flat): Maximum 5 at 60 degrees, maximum 10 at 85 degrees.
 - b. Gloss Level 2 (Velvet): Maximum 10 at 60 degrees, 10-35 at 85 degrees.
 - c. Gloss Level 3 (Eggshell): 10-25 at 60 degrees, 10-35 at 85 degrees.

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- d. Gloss Level 4 (Satin): 20-35 at 60 degrees, minimum 35 at 85 degrees.
- e. Gloss Level 5 (Semi-gloss): 35-70 at 60 degrees.
- f. Gloss Level 6 (Gloss): 70-85 at 60 degrees.
- g. Gloss Level 7 (High gloss): More than 85 at 60 degrees.
- 4. If the gloss range is not indicated, provide top coat with a MPI Gloss Level 3 (Eggshell) finish.
- 5. Submit gloss samples for approval prior to use.
- 6. Add flatteners if necessary to achieve specified gloss.
- 7. Part 3 includes a listing of surfaces and type of paint to be applied.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine surfaces carefully for defects which cannot be corrected and might prevent satisfactory results.
- B. Commencing of work in a specific area constitutes acceptance of surfaces, and responsibility for performance.

3.2 SURFACES NOT TO BE PAINTED

- A. Anodized aluminum, stainless steel, chromium plate, glass, copper, bronze or similar materials.
- B. Moving parts of valves, operating units, mechanical and electrical parts, such as valve and damper operators, sending devices, motor and fan shafts.
- C. Code labels, such as UL, FM that are mylar or flat (non-embossed) plates.
 - 1. Embossed plates and labels stamped into frames will be painted, label and information on label to be readily visible and convenient for identification by authority having jurisdiction.
- D. Equipment identification or rating plates.
- E. Items having complete factory finish with exception of:
 - 1. Exterior mechanical equipment.
 - 2. Exterior electrical equipment.

3.3 PREPARATION - GENERAL

- A. Assure that surfaces are clean and dry.

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- B. Assure that surfaces are free of foreign materials which will affect adhesion or appearance.
- C. Remove mildew and neutralize surface.
- D. Eliminate efflorescence before painting.
- E. Before painting, test surfaces with moisture meter.
- F. Paint when moisture is within paint manufacturer's acceptable limits.

3.4 MATERIAL PREPARATION

- A. Mix and prepare materials per manufacturer's specifications.
- B. Stir, agitate or blend materials to produce a mixture of uniform density as required for application of materials.

3.5 PREPARATION - FERROUS METAL SURFACES AND HOLLOW METAL

- A. Follow requirements of SSPC SP1 and SP3.
 - 1. Except where higher prep levels are indicated.
- B. Wire brush, or grind as necessary to remove shoulders at edge of sound paint to prevent telegraphing.
- C. Touch up damaged shop coats.
- D. For surfaces with touched up shop coat, omit first coat.
- E. Hollow metal frame joints at intersections of Rabbets, Stops, and Soffit Joints:
 - 1. Neatly fill corner seam with painter's caulk (in field) prior to painting.

3.6 PREPARATION - GALVANIZED METAL SURFACES AND NON-ANODIZED ALUMINUM

- A. Follow requirements of SSPC SP1.
- B. Treat surfaces with galvanized surface cleaner as recommended by primer and topcoat manufacturer.

3.7 PREPARATION – CONCRETE AND MASONRY

- A. Repair minor defects.
- B. Remove oil from concrete by washing with xylol.
- C. Block Filler:
 - 1. Apply masonry to fill pinholes and minor surface defects, and to prime surface for topcoat.
 - 2. Apply by brush, roller or sprayer.
 - a. Where spray-applied: Back-roll with roller or squeegee.

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3. Minimum Nominal Thickness: 10 mil DFT.
 - a. Comply with manufacturer's recommended coverage rates for conditions encountered.
 4. Provide complete cover with recommended coating system.
- D. Obtain architect's approval of finish for surfaces to receive high build glazed coatings.

3.8 APPLICATION - GENERAL

- A. Paint surfaces as specified in paragraphs "Schedule - Exterior Paint Systems".
- B. Provide complete coverage and hide.
 1. Paint systems are to cover.
 2. When color or undercoats show through, apply additional coats at no additional cost until paint film is of uniform finish and color.
- C. Employ only skilled mechanics.
- D. Mix and apply as recommended by manufacturer.
- E. Install when temperature, humidity, and surface conditions are acceptable to manufacturer.
- F. If Architect so directs, do not apply succeeding coats until Architect has an opportunity to observe previous coat.
- G. Remove and protect hardware, accessories, plates, fixtures, finished work, and similar items; or provide ample in-place protection.
- H. Upon completion of painting, carefully replace removed items and/or remove protection.
- I. Apply materials under adequate illumination.
- J. Evenly spread and smoothly flow on for full, smooth cover.
- K. Assure that coats are dry before recoating.
- L. Touch up suction or hot spots in plaster, concrete block, and concrete before painting.
- M. Touch up abraded areas of shop prime coats before subsequent coats are applied.
- N. Back prime wood trim with penetrating sealer.
- O. Finish colors not indicated shall be selected by Architect from paint manufacturer's standard colors.

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3.9 PROTECTION AND CLEANUP

- A. Protect adjacent work against damage by painting and finishing work.
- B. Clean, repair or replace, and repaint damaged work as directed by Architect.
- C. Provide "WET PAINT" signs.
- D. Remove temporary protective wrappings, after completion of operations.
- E. Clean paint spattered surfaces.
- F. Use care not to damage finished surfaces.
- G. Remove surplus materials, scaffolding and debris.
- H. Leave areas broom clean.

3.10 SCHEDULE - EXTERIOR PAINT SYSTEMS

- A. Select elastomeric – smooth, or elastomeric – textured. Coordinate with plaster section, coating may be specified there. Add if required.
- B. Metal doors and frames; Metal handrails and guardrails; Miscellaneous metals (ferrous, primed, zinc-coated, and aluminum):
 - 1. Acrylic, Level 5 (Semi-Gloss) See drawings:
 - a. Sherwin Williams:
 - 1) Primer coat: Recommended by topcoat manufacturer for each substrate.
 - 2) Intermediate coat: PRO INDUSTRIAL, ACRYLIC, B66-650.
 - 3) Topcoat: PRO INDUSTRIAL, ACRYLIC, B66-650.
 - b. PPG:
 - 1) Primer coat: Recommended by topcoat manufacturer for each substrate.
 - 2) Intermediate coat: Pitt-Tech Plus Exterior Semi-Gloss DTM Industrial Enamel
 - 3) Topcoat: Pitt-Tech Plus Exterior Semi-Gloss DTM Industrial Enamel
 - c. Benjamin Moore:
 - 1) Primer coat: Recommended by topcoat manufacturer for each substrate.
 - 2) Intermediate coat: Aura Grand Entrance Exterior Paint
 - 3) Topcoat: Aura Grand Entrance Exterior Paint

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- d. Glidden Professional:
 - 1) Primer coat: Recommended by topcoat manufacturer for each substrate.
 - 2) Intermediate coat: Fortis 450.
 - 3) Topcoat: Fortis 450.
- C. Structural steel (exposed):
 - 1. Acrylic, Gloss Level 5 (Semi-Gloss):
 - a. Sherwin Williams:
 - 1) Primer coat: Recommended by topcoat manufacturer for each substrate.
 - 2) Intermediate coat: PRO INDUSTRIAL, ACRYLIC, B66-650.
 - 3) Topcoat: PRO INDUSTRIAL, ACRYLIC, B66-650.
 - a) Clear coat: Recommended by topcoat manufacturer for each substrate.
 - b. Glidden Professional:
 - 1) Primer coat: Recommended by topcoat manufacturer for each substrate.
 - 2) Intermediate coat: Devthane UVA Aliphatic Urethane Gloss Enamel; 389.
 - 3) Topcoat: Devthane UVA Aliphatic Urethane Gloss Enamel; 389.
 - 4) Clear coat: Manufacturer recommended.
 - c. PPG:
 - 1) Primer coat: Recommended by topcoat manufacturer for each substrate.
 - 2) Intermediate coat: Pitthane Ultra Gloss Urethane 95-812.
 - 3) Topcoat: Pitthane Ultra Gloss Urethane 95-812.
 - 4) Clear coat: Pitthane Ultra Gloss Urethane 95-812.
 - D. Other manufacturers desiring approval comply with Section 00 26 00.

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include

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furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 09 96 23
GRAFFITI – MOISTURE PROTECTION SURFACE SEALER

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish labor, materials, tools, equipment, and services for Anti-Graffiti Coating and Remover, as indicated, in accordance with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. Applicator must be licensed by manufacturer, or approved in writing.
- B. ASTM D2369 Standard Test Method for Volatile Content of Coatings.
- C. Mockup:
 - 1. Minimum 4 FT x 4 FT area on each surface type.
 - 2. Coordinate location with Architect.
 - 3. Apply in accordance with Manufacturer's recommendations and instructions.
 - 4. Allow protective treatment cure before testing inspection.
 - 5. Keep test panels available for comparison throughout protective treatment project.
 - 6. Accepted test area may be included in work.

1.3 SUBMITTALS

- A. Contract Closeout Information:
 - 1. Maintenance data.
 - a. See Section 01 78 23.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Anti-Graffiti Coating System and Remover:
 - 1. Base:
 - a. Monopole, Inc.
 - 2. Optional:
 - a. Prosoco, Inc.

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- b. Hydrozo.
- c. Chemprobe.

B. Other manufacturers desiring approval comply with Section 00 26 00.

2.2 MATERIALS

A. Anti-Graffiti Coating System:

- 1. Penetrating, clear, solvent-based silicone elastomer.
- 2. UV stable.
- 3. Total solids: 50 percent minimum.
- 4. VOC Content: Comply with USEPA AIM VOC regulations (40 CFR 59.403).
- 5. Base Product: Permashield Premium by Monochem, Monopole, Inc., or equivalent.
- 6. Non-sacrificial

B. Graffiti Remover:

- 1. Base product: Monochem Citrus Clean Super, or equal, Monopole, Inc.
- 2. Water-Miscible

PART 3 - EXECUTION

3.1 INSPECTION

A. Verify suitability of substrate to accept installation.

- 1. Bring holes, voids, and cracks to Architect's attention.

B. Application constitutes acceptance of responsibility for performance.

3.2 PREPARATION

- A. Verify concrete was steel troweled, hair broomed, and free of fins, ridges and voids.
- B. Assure curing agents are compatible with sealer or completely removed.
- C. Concrete must be cured for minimum of 28 days, with moisture content not exceeding 8 percent.
- D. Remove surface contamination by cleaning or if necessary by sandblasting.
- E. Repair, holes, voids, and cracks.
- F. Apply test patch.

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1. If test patch indicates lack of adhesion, re-prepare surface.

3.3 APPLICATION

A. General:

1. Apply in accordance with Manufacturer's recommendations and instructions.
2. Do not apply to surfaces scheduled to receive cementitious coatings or toppings, such as concrete, terrazzo, polyester or epoxy coatings.

B. Spray Application:

1. Apply sealer wet-on-wet and saturate from bottom up, creating a 6 IN to 8 IN rundown below spray contact point.
2. Allow first application to penetrate 2 - 3 minutes.
3. Resaturate surface with sealer.
4. Spray in overlapping X-pattern to fluted surfaces to ensure coverage of recessed surfaces.
5. Reduce rundown to 4 IN to 6 IN below contact point when applying to burnished, ground face or similar smooth surfaces.

C. Brush or Roller Application:

1. Apply sufficient material to thoroughly saturate surface.
2. Avoid excessive overlapping.
3. Brush out non-penetrating heavy runs and drops.
4. Dense Surfaces:
 - a. Apply a single coat to wet surface without creating drips, puddles or rundown.
 - b. Do not over apply.
5. Porous Surfaces:
 - a. Apply 2 coats.
 - b. Apply second coat within 2 hours of first coat, or first coat is dry to touch.

D. Protect treated surfaces from rain for 4-6 hours.

3.4 PATCHING AND CLEANING

- A. Recoat areas which fail to match adjacent work.**
- B. Remove debris resulting from these operations.**

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END OF SECTION

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SECTION 10 14 03
IDENTIFICATION DEVICES - EXTERIOR

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish all labor, materials, tools, equipment, and services required for fabrication and installation of Identification Devices as indicated in the Drawings and described in this Section.
- B. Completely coordinate with work of other trades.
- C. Although such work is not specifically indicated, provide supplementary or miscellaneous items, appurtenances and devices incidental to, or necessary for a sound, secure and complete installation.
- D. Identification devices indicated in AG-Series Drawings are specified in this Section.
- E. Definitions:
 - 1. Identification devices refers to signage and graphics designed, fabricated, and installed for the purpose of effectively communicating directional information to persons within a building, and throughout the building campus.

1.2 QUALITY ASSURANCE

- A. UL compliance: Light fixtures and electrical components.

1.3 SUBMITTALS

- A. Shop Drawings:
 - 1. Fabrication and erection drawings for identification device types.
 - a. Complete, fully dimensioned, large scale, and detailed fabrication drawings of major components.
 - b. Include plans, elevations, and full scale details of identification device wording and lettering layout.
 - 2. Field verify dimensions and locations for identification device types prior to developing shop drawings.
 - 3. Template drawings: Furnish location template drawings for items supported or anchored to permanent building construction.
- B. Samples:
 - 1. Laser output proof: Full character set, or sets with a minimum cap height of 2 IN.

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2. Full scale pen plot of each identification device legend.
3. Full-size spacing templates for building mounted letters and numbers.
4. Full-size sample letter required for identification device types in the specified typeface, materials, and finish.
 - a. Where possible, provide on the actual background material.
5. Minimum 6 IN x 6 IN sample of materials for identification device types.
6. Minimum 6 IN x 6 IN sample of colors requiring color matches on samples of actual identification device material.
7. Prototypes:
 - a. Fabricate 1 prototype of each identification device type for verification and testing after shop drawing and sample submittals are approved, and prior to fabrication.
 - b. Due to the scale and complexity of some identification device types, partial section prototypes will be required for the following:

To be determined.
 - c. Submit clarification drawings detailing scale, materials, finishes, fasteners, etc. for section prototypes for review and approval prior to fabrication.
 - a) Contract Closeout Information:

(1) Operating and Maintenance Data.
8. Warranties.
9. Spare parts.

1.4 WARRANTY

- A. Manufacturer shall warrant workmanship and materials for a period of 2 years.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Identification devices:
 - a. Base:
 - 1) Poblocki Sign Company.
 - b. Optional:
 - 1) ASI Sign Systems.

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- 2) Best Manufacturing Sign Systems.
 - 3) Inpro Corporation.
 - 4) Interface Architectural Signage.
 - 5) Mohawk Sign Systems.
 - 6) Signscape.
2. Other manufacturers with a complete line of identification devices desiring approval must comply with Section 00 26 00.

2.2 IDENTIFICATION DEVICES

A. General:

1. References to Drawings are primarily to sheets labeled "AG". Information may be listed on other sheets such as "A" and "E".
2. The following information is shown on Drawings for each sign type:
 - a. Individual component and accent materials.
 - b. Letter style, case and height.
 - c. Character proportions.
 - d. Letter colors.
 - e. Background color and other graphics.
 - f. Mounting method and shims or spacers used.
 - g. Location of sign relative to other building elements.
 - h. Finish level.
3. Direction and identification devices for communications systems: International Symbols.

B. Identification device types:

- 1) See drawings.

2.3 IDENTIFICATION DEVICE FINISH LEVEL

A. High Finish:

1. May include following materials, or combination of materials:
 - a. Back-painted, sandblasted glass panel with silkscreened letters.
 - b. Etched, paint-filled letters.
 - c. Etched stainless steel panel.
 - d. Full round bar stock stainless steel letters.

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- e. LED digital matrix display.
- f. Painted aluminum letters.
- g. Painted aluminum panel.
- h. Painted die-cut vinyl letters.
- i. Pre-patina copper panel.
- j. Water-jet cut stainless steel letters.

B. Medium Finish:

- 1. May include following materials, or combination of materials:
 - a. Painted acrylic letter.
 - b. Painted acrylic panel.
 - c. Clear acrylic panel with paper insert.
 - d. Painted aluminum panel with reflective die-cut vinyl letters.
 - e. Painted photopolymer panel with silkscreened letters.
 - f. Scotchprint Panaflex digital vinyl.

C. Finish and contrast:

- 1. Characters and background:
 - a. Non-glare.
 - b. Characters must contrast with background; recommend 70 percent.

2.4 MATERIALS

A. All materials to be inert.

B. Contractor ensure and prevent galvanic reactions between products used.

C. Acrylic:

- 1. Cast Acrylic Sheet: Cast, not extruded or continuous cast, methyl methacrylate monomer plastic sheet.
 - a. Provide in sizes and thicknesses indicated.
 - b. Minimum flexural strength: Mean 110MPa 16,000 PSI when tested in accordance with ASTM-D790.
 - c. Minimum allowable continuous service temperature of 80 degC 176 degF.
- 2. General types:
 - a. Transparent Sheet: Clear, colorless sheet, matte finish.

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- 1) Light transmittance: 92% when tested in accordance with ASTM-D1003.
- b. White Translucent Sheet:
 - 1) Density required to produce uniform brightness and minimum halation effects.
- c. Opaque Sheet:
 - 1) Colored opaque acrylic sheet in colors and finishes indicated; If not indicated, provide in colors selected from the manufacturer's full range of standard colors.
 - 2) 30-30 Acrylic: Tinted.
3. Edges: Polish edges.
4. Abrasive Resistance Coating (ARC):
 - a. Product: Abrasive resistant coating as recommended by manufacturer.
 - b. Apply ARC to exposed faces of acrylic sheet after graphics have been applied.
- D. Graphics:
 1. Electrostatic or electronic graphics process.
 2. Applicator: Applied Image, Farmingdale, New Jersey.
- E. Paints:
 1. Under-coating: Apply paint under-coating for identification devices for deterioration of metals prevention.
 2. Finish:
 - a. Evenly spray apply finish in accordance with manufacturer's recommendation.
 - b. Finish to be free of grit, dirt, smears, spots, and orange peel effect.
 3. Compatibility: Ensure paint compatible with metal used.
 4. Ultra-violet inhibitors: Each coat shall have UV Inhibitors
 5. Manufacturer: Matthews Paint Company, Pleasant Prairie, WI.
 6. Other manufacturers desiring approval must comply with Section 00 26 00.
- F. Polymer:
 1. Photopolymer:
 - a. Sheet photopolymer:

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- 1) Manufacturer: Nova Polymers Inc., Yeadon, PA.
 - 2) Product: NovAcryl, PT Series nylon based photopolymer on extruded, clear, UV stable copolyester PETG thermoplastic base.
 - a) Model: PT-236.
 - 3) High resolution, ADA compliant, raised graphic sign.
 - a) Minimum face relief: .032 IN in compliance with ADA.
 - b) Maximum face relief: .040 IN in compliance with ADA.
 - 4) Base thickness: 6.0 mm.
 - 5) Face relief: 1.0 mm Nylon resin based photopolymer layer.
 - 6) Substrate: Clear PETG plastic base with UV inhibitor.
 - 7) Photopolymer Durometer: 80 Shore D Durometer hardness.
 - 8) Other manufacturers desiring approval must comply with Section 00 26 00.
- b. Process in accordance with manufacture's General Processing Guidelines.
- c. Laminated photopolymers are not acceptable.
- d. Finishes:
- 1) Automotive grade acrylic polyurethane finishes.
 - 2) Manufacturer:
 - a) Base: Matthews Paint Company, Pleasant Prairie, WI.
 - b) Optional: Carbit Paint, Co, Inc., Chicago, IL
 - 3) Lacquer based finishes are not acceptable.
2. Solid polymer:
- a. Material: Solid sheet nonporous polymer, homogeneous filled acrylic.
 - 1) Coated, laminated, or composite construction are not acceptable.
 - b. Provide material in compliance with ANSI-Z124.3 and ANSI-Z124.6.
 - c. Manufacturer:
 - 1) Base: DuPont Corian.
 - 2) Optional:

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- a) Avonite.
- b) Surrell.
- d. Other manufacturers desiring approval must comply with Section 00 26 00.

3. Removable reflective film:

- a. Adhesive coated opaque sheeting.
 - 1) Liner: Easy release for removable messages.
 - 2) Sheetting: Reflective even when wet by rain.
- b. Properties:
 - 1) Adhesion on etched aluminum: 2.5 LBS/IN.
 - 2) Applied temperature: Minus 1 degC to plus 93 degC Minus 30 degF to plus 200 degF.
 - 3) Dimensional stability: .025 cm .010 IN.
 - 4) Entrance angle: Minus 4 Deg 35 to 18/40 Deg 7 to 4.5.
 - 5) Flexibility: No cracking.
 - 6) Observation angle: .2 Deg to .5 Deg.
 - 7) Removability: Up to 18 months.
 - 8) Thickness: .010 IN.

G. Fasteners and Anchors:

- 1. Anchors and inserts:
 - a. Exterior installations, and areas requiring corrosion resistance:
 - 1) Non-ferrous metal, or hot-dipped galvanized anchors and inserts.
 - b. Concrete and masonry work: Toothed steel, or lead expansion bolt devices with inserts for drilled-in-place anchors.
- 2. Bracket mounting:
 - a. Identification devices which project at right angles from walls or ceilings.
 - 1) Manufacture's recommended standard concealed brackets, fittings, and hardware.
 - 2) Attach brackets and fittings securely to walls or ceilings with concealed fasteners and anchoring devices in accordance with manufacturer's recommendations.

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3. Cast metal: Mount cast plaques using standard method recommended by manufacturer for each type of wall surface.
4. Concealed mounting:
 - a. Mounting plaques: Insert threaded studs into tapped lugs on back of plaque.
 - b. Set in predrilled holes filled with quick setting cement.
5. Face mounting: Mount plaques with exposed fasteners anchored through face of plaque into wall surface.
6. Flush mounting: Letters mounted with backs in contact with wall surface.
7. Mechanical fastening: Manufacturer's recommended fasteners based on identification device type and substrate.
8. Metal letters and numbers:
 - a. Manufacturer's standard fastening method for letter form, type of mounting, wall construction, and condition of exposure.
 - b. Heavy paper template: Provided by Manufacturer for establishing letter spacing and for locating holes for fasteners.
9. Projected mounting: Mount letters at a projected distance from the wall surface as indicated.
10. Reclosable fasteners:
 - a. Manufacturer: 3M.
 - b. Fastener types.
 - 1) Dual Lock SJ3562, Type 170.
 - 2) Dual Lock SJ3560. Type 250.
 - 3) Dual Lock SJ3561, Type 400.
 - c. Provide fastener types as recommended by manufacturer.
 - d. Other manufacturers desiring approval must comply with Section 00 26 00.
11. Shim plate mounting:
 - a. Concealed aluminum shim plates 1/16 IN thick, with predrilled and countersunk holes.
 - b. Provide at locations indicated, and where other mounting methods are not practicable.

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- c. Attach shim plate with fasteners and anchors providing secure attachment to substrate.
- d. Attach panel identification devices to shim plate and substrate.
- 12. Wall mounting: Attach panel identification devices to wall surfaces using following methods:
 - a. Vinyl tape mounting: Double-sided foam tape, thickness indicated, or as required to mount identification devices to smooth, non-porous surfaces.
 - b. Silicone adhesive mounting:
 - 1) Liquid silicone adhesive recommended by Manufacturer for attaching identification devices to irregular, porous, or vinyl-covered surfaces.
- 13. Installer requirements:
 - a. Based on manufacturer recommendations, installer shall be responsible for fastener compatibility with substrates.
 - b. Insure that oxidation does not occur, or that other reactive processes do not occur between related signage materials and fasteners.

H. Adhesives:

- 1. Double faced laminating film:
 - a. Manufacture: Fasson, Division of Avery International Company.
 - b. Type: FASTAPE A Laminating Film, or as recommended by manufacturer.
- 2. Permanent double faced tape:
 - a. Manufacturer: 3M.
 - b. Type: 1/32 IN, Scotch Mount Neoprene Tape No. 4962, or as recommended by manufacturer.
- 3. Removable double faced tape:
 - a. Manufacturer: 3M.
 - b. Type: 1/32 IN, double faced removable tape No. 4432, or as recommended by manufacturer.
 - c. Color: Black.
- 4. Silicon adhesive:
 - a. Manufacturer: General Electric Corporation.

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- b. Type: Silicon paneling adhesive as recommended by manufacturer.
- 5. Permanent adhesive:
 - a. Manufacturer: 3M.
 - b. Scotch 468MP, hi-performance adhesive, or as recommended by manufacturer.
- 6. Installer ensure adhesive compatibility with substrates.
- 7. Other manufacturers desiring approval must comply with Section 00 26 00.

I. Finishes:

- 1. Metal finishes: Finish in compliance with NAAMM Metal Finishes Manual for finish designations and application recommendations.
- 2. Paint: Satin finish.
- 3. Stainless steel: ANSI No. 4 finish, horizontal grain, unless otherwise noted or specified..
- 4. All finishes comply with American with Disabilities Act:
 - a. Measure finishes with a Glossimeter to insure compliance.

2.5 GRAPHICS

A. Image process:

- 1. Graphic content and style:
 - a. Provide identification device copy in compliance with requirements indicated for content, finishes, materials, positions, sizes, spacing, styles, and colors of letters, numbers, symbols, and other graphic images.

B. Typography:

- 1. Typography and graphics: Photographically and/or mechanically reproduced.
- 2. International Symbols: In accordance with U.S. Department of Transportation current standards publication.
- 3. Identification device typeface fonts: Provide as indicated on drawings.
- 4. Letter forms:
 - a. Use approved type font masters from the original type foundry.

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- b. Cut letter forms with Signus equipment, only.
- c. Die cutting: Letter forms edges and corners are to be clean and true.
 - 1) Letterforms with ragged edges, rounded positive or negative corners will not be acceptable.

C. Artwork:

- 1. Manufacturer provide typesetting, and mechanical artwork required for identification device types.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine conditions under which materials are to be installed.
- B. Installation constitutes acceptance of responsibility for performance.

3.2 FABRICATION

A. General requirements:

- 1. Fabricate and assemble identification devices in shop to the greatest extent possible.
- 2. Fabricate parts and assemblies ready for installation at the building site.
- 3. Surface defects considered unacceptable: Oil canning, cupping, and warping.
- 4. Grind welds shall smooth.
- 5. Be responsible for structural stability and mounting for graphics and identification devices.
- 6. Provide vandal-resistant materials and finishes. Make recommendations of vandal-resistant design or manufacturing processes that may not be indicated in drawings.

B. Identification device panels:

- 1. Comply with requirements indicated for colors, designs, details of construction, finishes, materials, shapes, sizes, and thicknesses.
- 2. Surfaces: Smooth, even, and level.
- 3. Identification device panel flatness:
 - a. Fabricate panels to remain flat within 1/32 IN over the concave surface.

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- b. Fabricate panels to remain flat under installed conditions within a tolerance of plus or minus 1/16 IN measured diagonally.
- 4. Edge Condition: 90 degree square cut, unless otherwise noted.
- 5. Corner condition: Provide square corners, unless otherwise noted. Ease corners to prevent injury/clothing snags.
- 6. Panel materials:
 - a. See drawings for types and locations.
- C. Applied copy:
 - 1. Die-cut copy characters from vinyl film.
 - 2. Provide pressure sensitive adhesive backing.
 - 3. Apply copy to exposed face of identification device panel.
 - 4. Apply copy to other surfaces where indicated.
- D. Photo-etched copy:
 - 1. Fabricate raised lettering on metal background using acid etching process.
 - 2. Metal background for acid etching: Stainless steel or magnesium plate.
 - a. Finish metal background as indicated.
 - b. Paint raised surface.
- E. Engraved copy:
 - 1. Graphic elements, letters, numbers, and symbols machine engraved into identification device panel face.
 - a. Engrave to a precisely formed copy, incised to uniform depth.
 - b. Engrave using high speed cutters, mechanically linked to master template in a pantographic system.
 - 2. Engraved acrylic: Epoxy enamel fill engraved acrylic copy.
 - 3. Face engraved clear acrylic:
 - a. Epoxy enamel fill engraved copy.
 - b. Opaque background color coating shall be applied to back face of acrylic sheet.
 - c. Copy shall be engraved to a minimum depth of 1/32 IN, and 1/4 IN minimum stroke thickness.
 - 4. Engraved metal: Epoxy enamel fill engraved copy.

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5. Engraved plastic laminate: Engrave through exposed plastic laminate face ply to expose contrasting core ply.
6. Subsurface engraved acrylic sheet:
 - a. Back face: Reverse engrave.
 - b. Engraved copy: Fill with epoxy enamel.
 - c. Opaque background color coating: Apply over epoxy-enamel filled copy.

F. Silkscreened copy:

1. Subsurface copy:
 - a. Form panel face: Apply copy to back face of clear acrylic sheet to form panel face.
 - b. Produce precisely-formed opaque images with smooth edges.
 - c. Print copy: Reverse silkscreen process.
 - 1) Copy shall be over sprayed with opaque background color coating.

G. Raised copy:

1. Exterior grade:
 - a. Fabrication of raised lettering on metal background to magnesium alloy plate shall be by acid etching process.
2. Machine-cut letter forms, and chemically weld to indicated materials.
 - a. Form characters with square cut edges free from burrs and cut marks.
 - b. Panel material, and raised copy thickness: Not less than 1/32 IN.

H. Metal letters and numbers:

1. Comply with requirements indicated for manufacturing process, finish, materials, message content, style, and size.
2. Metal: Stainless steel, unless otherwise indicated.

I. Fabricated metal letters and numbers:

1. Fabricate metal letters and numbers in sizes and styles indicated.
 - a. Thicknesses: As indicated.
 - b. Form exposed faces and sides of characters.
 - c. Produce surfaces free from warp and distortion.
 - d. Provide internal bracing for stability.

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- e. Provide internal bracing for attachment of required mounting accessories.

3.3 INSTALLATION

A. General requirements:

1. Locate identification devices and accessories where shown, or scheduled in AG-Series drawings.
 2. Use mounting method types indicated and as described, and in accordance with manufacturer's recommendations.
 3. Field determine exact locations and dimensions for identification devices prior to fabrication.
 4. Contractor immediately notify Owner and Architect if building and site conditions are at variance with drawings.
 - a. Do not to proceed until the unsatisfactory conditions have been corrected.
 5. Install identification devices in positions shown on drawings.
 - a. Install identification devices at heights indicated, plumb, and in alignment.
 - b. Brace devices securely until permanent anchorage is made.
 - c. Identification device surfaces are to be installed free from distortion or other defects in appearance.
 - d. Perform cutting, drilling, and fitting carefully.
 - e. When required, fit at site before finishing.
- B. Mount identification devices according to methods specified or as indicated on drawings for each type.
- C. Manufacturer to provide printed instructions or drawings on wall blocking locations and type required to Contractor in a timely manner to allow installation.

3.4 CLEAN-UP

- A. At completion of the installation, clean identification devices with appropriate cleaning agents prior to final inspection and acceptance. Grease, fingerprints, smudges, adhesive, etc. remaining on identification devices or components will not be acceptable. Protect identification device units from damage until acceptance by Owner.

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- B. Remove packing and debris from the project site upon completion and leave the site in a condition which is clean and free of damage and abuse.

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 10 44 00
FIRE PROTECTION SPECIALTIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish labor, materials, tools, equipment, and services for Fire Protection Specialties in accord with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.

1.2 QUALITY ASSURANCE

- A. Provide fire extinguishers, cabinets and accessories by single manufacturer.
- B. National Fire Protection Association (NFPA):
 - 1. NFPA 10 Standard for Portable Fire Extinguishers.
- C. Americans with Disabilities Act (ADA):
 - 1. Standards for Accessible Design.

1.3 SUBMITTALS

- A. Contract Closeout Information:
 - 1. Maintenance data.
 - a. See Section 01 78 23.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Fire Protection Specialties:
 - 1. Base:
 - a. Potter Roemer Fire Pro.
 - 2. Optional:
 - a. Badger.
 - b. Larsen's Manufacturing.
 - c. Nystrom.
- B. Fire Extinguishers:
 - 1. Base:
 - a. JL Industries.
 - 2. Optional:

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- a. Amerex.
 - b. Badger.
 - c. Larsen's Manufacturing.
 - d. Nystrom.
3. Other manufacturers desiring approval comply with Section 00 26 00.

2.2 FIRE EXTINGUISHER (FE)

A. Multi-Purpose Chemical Fire Extinguishers:

1. Typical FE, except where more specialized types are required.
2. Fluidized and siliconized chemical powder extinguishing agent suitable for classes A, B and C fires.
3. Construction:
 - a. Heavy-duty steel cylinder with metal valve and siphon tube with replaceable molded valve stem seal, visual pressure gauge, pull pin and upright squeeze grip.
 - b. Corrosion and impact-resistant, powder coat finish.
 - c. Color: Red, in accord with OSHA requirements.
4. Capacity: 10 LBS.
 - a. UL-rating: 4A-80BC.
 - b. Base Product Model: Cosmic 10E by JL Industries.
5. Provide one FE for each:
 - a. Fire Extinguisher Cabinet (FEC).

2.3 FIRE EXTINGUISHER CABINETS (FEC)

A. General:

1. Provide FIRE EXTINGUISHER decal for each cabinet. Orient letters vertically on door.
2. Provide break-away release handle at each cabinet.
3. Keys to Door Locks: Three per lock.

B. FEC-4: Surface-mounted, Stainless Steel, Fire Extinguisher Cabinet:

1. Description: Stainless steel cabinet box fully exposed and mounted directly on wall with no trim.
2. Material: 0.028 IN (22 GA) #304 stainless steel.
 - a. Finish: #4 brushed.

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3. Tub Size, inside clear (WxHxD): 11-1/2 x 20-1/2 x 6 IN.
4. Door Style: Duo-Vertical Panel w/ Lock, Tempered Safety Glass & break-away release; Clear acrylic.
5. Lock: Cam lock with emergency break-away release handle/mechanism.
6. Base Product: Surface Alta Fire Extinguisher Cabinets: 7059-SURFACE-DVL-6-STAINLESS_STEEL-VR

2.4 WALL BRACKETS

A. Wall Brackets:

1. Manufacturer's standard steel, designed to secure fire extinguisher to wall or structure, of sizes required for types and capacities of fire extinguishers indicated
2. Finish: Baked-enamel or powder coat.
3. Include mounting accessories suitable for substrate wall type.
4. Locations: Install wall brackets for each fire extinguisher (FE) not indicated to be installed in a cabinet.

2.5 FABRICATION

A. Cabinets:

1. Weld joints and grind smooth.
2. Provide factory-drilled mounting holes.
3. Install door locks at factory.

B. Cabinet Doors:

1. Fabricate doors according to manufacturer's standards, from materials indicated and coordinated with cabinet types and trim styles selected.
2. Fabricate door frames with tubular stiles and rails and hollow-metal design, 1/2 IN thick.

C. Cabinet Trim:

1. Fabricate cabinet trim in one piece with corners mitered, welded, and ground smooth.

2.6 FINISHES

- ### **A. Comply with NAAMM's Metal Finishes Manual for Architectural and Metal Products.**

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- B. Protect mechanical finishes on exposed surfaces of fire protection cabinets from damage by applying a strippable, temporary protective covering before shipping.
- C. Finish fire protection cabinets after assembly.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Verify suitability of substrates to accept installation.
- B. Installation constitutes acceptance of responsibility for performance.

3.2 INSTALLATION

- A. Install extinguishers and cabinets within limitations of NFPA-10 and ADA.
- B. Securely fasten mounting brackets and cabinets to structure, square and plumb, to comply with manufacturer's instructions.
- C. Provide unistrut or welded steel support where needed to mount cabinets or brackets in mechanical rooms and similar locations.
- D. Provide required closures.
- E. Installation Heights:
 - 1. Fire Extinguisher Cabinets (FEC):
 - a. Locate with centerline of cabinet door handle not more than 48 IN AFF.
 - 2. Fire Extinguishers (FE) not contained in a cabinet:
 - a. Locate wall brackets such that extinguisher release mechanism will not be higher 48 IN AFF.

3.3 ADJUSTING AND CLEANING

- A. Remove temporary protective coverings and strippable films.
- B. Adjust fire protection cabinet doors to operate easily without binding.
 - 1. Verify that integral locking devices operate properly.
- C. Clean interior and exterior surfaces.

END OF SECTION

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SECTION 31 11 00
SITE CLEARING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Site clearing and grubbing of trees, stumps, undergrowth, brush, trash, grass, weeds, roots, rubbish, refuse, or other debris, modifying irrigation systems, stripping of topsoil and protecting trees within the limits of excavation, embankment, borrow, and other areas as shown on the Contract Plans or required to perform the Work of this Contract.

B. Related Specification Sections include but are not necessarily limited to:

1. Division 01 - General Requirements.
2. Section 31 11 50 - Demolition, Cutting, and Patching.

1.2 SUBMITTALS

A. General:

1. Submittals shall be made in accordance with Division 01 requirements.

B. Site Clearing Plan:

1. A site clearing plan must be prepared by the Contractor and submitted to the Engineer for acceptance prior to commencing work. The site clearing plan shall include:
 - a. Location and limits of clearing and grubbing.
 - b. Methods for protection of areas of vegetation designated as "no construction zones" and trees noted in plans to be saved.
 - c. Methods to be employed and equipment to be used.
 - d. Safety measures including signs, barriers, temporary walkways and hand railing.
 - e. Haul routes and disposal sites.
 - f. Permits for transport of materials off the Work Site where applicable and other permits as required by local agencies, project environmental documents and the project Plans.

C. Permits, Notices, Certifications and Authorizations:

1. The following permits, notices, certifications and authorizations shall be obtained with copies submitted by the Contractor to Omnitrans:

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- a. Delivery manifests for disposed materials in accordance with site clearing plan and permit conditions in accordance with Division 01 requirements.
- b. Private property owner's release for material removed and deposited on private property in accordance with Division 01 requirements.
 - 1) Releases shall absolve Omnitrans and its member agencies from any responsibility in connection with the disposal of materials on private property.
 - 2) Releases shall be signed by the owner(s) of the property on which the material will be deposited.
 - 3) Two copies of the releases must be submitted to the Engineer for approval not more than 15 days before the start of material being deposited on private property.
- c. Disposal Certification for materials removed from Job Site indicating they have been disposed of in accordance with applicable laws and regulations in accordance with Division 01 requirements.

1.3 ENVIRONMENTAL CONDITIONS

- A. On-site burning or burial of site clearing materials will not be allowed.
- B. Contractor must take possession of material and debris collected from site clearing procedures and shall be responsible for disposing of them in accordance with these Specifications, any project permits, and applicable laws and regulations in accordance with Division 01 requirements.
- C. Contractor shall provide noise abatement in accordance with Division 01 requirements.
- D. Site cleanliness, sweeping and dust control shall be in accordance with Division 01 requirements.

PART 2 - PRODUCTS - (NOT APPLICABLE TO THIS SECTION)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect existing trees, other vegetation, and existing site improvements on Omnitrans or adjacent property that are to remain.
 - 1. Do not smother trees by stockpiling construction materials or excavated materials within drip line.
 - 2. Avoid foot or vehicular traffic or parking of vehicles within drip line of trees or shrubs.

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3. Provide barricades, coverings, temporary fencing, or other types of temporary protection as required by the Project environmental documents or the Engineer in accordance with the Plans and these Specifications.
- B. Repair or replace trees, vegetation, and existing site improvements including modifying irrigation systems that are to remain that are damaged by construction operations.
 1. Repair of damaged trees and shrubs to be performed by a certified arborist or tree surgeon.
 2. Remove trees that are damaged to the extent that a certified arborist or tree surgeon determines cannot be repaired and restored to full-growth status.
 - a. Replace with new trees of minimum 4 IN caliper.
 3. Damaged vegetation shall be replaced in-kind as approved by the Engineer.
 4. Existing site improvements will be repaired or replaced as approved by the Engineer.
 5. Irrigation systems shall be modified as shown in the Plans.
- C. Omnitrans will obtain authority for removal and alteration work, as required by the Plans, on adjoining property prior to Contractor starting work.
- D. Within the limits of clearing, all stumps, roots, root mats, logs, debris and other objectionable material shall be removed as follows:
 1. Grubbing shall extend to the outside excavation and fill slope lines except where tops of slopes are to be rounded. In these locations, the areas shall extend to the outside limits of slope rounding.
 2. Grub where subdrainage trenches will be dug, unsuitable material removed, or structures built.
 3. Grub areas in which hillsides or existing embankments will be terraced.
 4. Grub areas upon which embankments, foundations or other structures will be placed.
 - a. Areas beneath embankments greater than 3 FT in depth shall be free from all vegetation and roots to a depth of 6 IN below the ground surface (after topsoil has been removed).
 - b. For embankments 3 FT in depth or less, roots that are over 2 IN DIA shall be removed to a depth of 1 foot below ground surface.

3.2 CLEAN-UP

- A. Remove and dispose of barricades, coverings or other protections used to prevent damage to existing vegetation or improvements upon clean-up of the Work.

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3.3 SCHEDULE

- A. Contractor must complete clearing and grubbing work far enough in advance of other operations to permit the placement of construction stakes. Construction schedule shall be adjusted so cleared areas are not left susceptible to erosion or sediment runoff due to weather.

3.4 ACCEPTANCE

- A. Upon completion of the site clearing, obtain Engineer's written acceptance of the extent of clearing, depth of stripping, and removal of deleterious material.

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 31 11 50
DEMOLITION, CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes but is not limited to:

1. Demolition, removal and disposal, salvage, cutting and patching of existing construction, surface or subsurface, where shown on Plans, or as required to accommodate new work shown or specified; including backfilling of excavations and depressions to restore the Work Site to final grade.
2. Demolition, removal and disposal of existing Reinforced Concrete Pipe (RCP), Portland Cement Concrete Pavement (PCCP), Asphalt Concrete Pavement (ACP), Polyvinyl Chloride Pipe (PVC), Corrugated Metal Pipe (CMP) storm drain where shown on Plans, and other related manmade features or as required to accommodate new work shown.
3. Demolition, removal and disposal of existing Under Drain (UD) pipe and UD cleanouts where shown on Plans, or as required to accommodate new work shown.
4. Demolition, removal and disposal of existing storm drain manholes, inlets and headwalls where shown on Plans, or as required to accommodate new work shown.
5. Saw cut of existing concrete pavement, existing Asphalt Concrete / HMA pavement at the locations shown on the Contract Plans or as required to perform the Work of this Contract.
6. Removal of existing HMA pavement and Aggregate Base (AB) Material at the locations shown on the Contract Plans or as required to perform the Work of this Contract.
7. Removal and disposal of existing chain link fence as shown on the contract plans or required to perform the Work of this Contract.
8. Removal and salvage of existing wrought iron fencing regardless of location or use as shown on the contract plans.
9. Demolition and removal of existing minor structures (bollards, planter, manholes, storm drain inlets, headwalls) as shown on the Contract Plans or required to perform the Work of this Contract.
10. Removal and disposal of existing pavement markings and markers as shown on the Contract plans or required to perform the Work of the Contract.

B. Related Specification Sections include but are not necessarily limited to:

1. Division 01 - General Requirements.
2. Section 31 11 00 - Site Clearing.
3. Section 31 22 00 - Site Excavation and Rough Grading.

1.2 SUBMITTALS

A. General

1. Submittals shall be made in accordance with requirements.

B. Contractor shall provide a Site Demolition Plan:

- a. Proposed materials and methods to be used for cutting and patching, or matching and repairing existing construction to remain.
- b. Safety measures including signs, barriers, temporary walkways and hand railing.
- c. Haul routes and disposal sites.
- d. Traffic control measures or traffic plan where required by Contractor's proposed methods in accordance with Division 01 requirements.
- e. Identification of permits as required by the project environmental documents, federal, state or local agency in accordance with requirements.

C. Contractor shall provide copies of notices, permits, certifications and authorizations:

1. Copies of demolition authorization permits and other permits as required by project environmental documents, federal, state or local agency in accordance with requirements.
2. Delivery manifests for materials hauled and disposed by Contractor.
3. Private Property Owner's Release for material removed from the Omnitrans project site and deposited on private property.
 - a. Releases shall absolve Omnitrans and its member agencies from any and all responsibility in connection with the disposal of materials on private property.
 - b. Releases shall be signed by the owner(s) of the property on which the material will be deposited.
 - c. Two copies of the releases shall be submitted to the Engineer for approval a minimum of 15 days prior to the start of material being deposited on private property.
4. Disposal Certification for materials removed from Job Site indicating they

have been disposed of in accordance with applicable laws and regulations.

D. Contractor shall provide material certification:

1. Indicating manufacturer and type of proposed nonshrink grout and/or epoxy bonding adhesive for patching or repairs to existing concrete structure to remain.

1.3 DELIVERY, STORAGE, AND HANDLING

A. General:

1. Contractor to salvage items, designated for Owner's salvage, as a functional unit.
2. Clean, list and tag each item in a manner acceptable to the Engineer for storage.
3. Protect salvage items from damage and deliver to location designated in the Plans or as directed by the Engineer.
4. Salvage each item with auxiliary or associated equipment required for operation.

B. Demolished Materials:

1. On-site burning or burial of demolished materials will not be permitted.
2. Contractor shall take possession of all demolished materials except as noted in the Contract Documents to be salvaged.
3. Contractor shall be responsible for disposing of demolished materials in accordance with applicable federal, state and local laws and regulations in accordance with Division 01 requirements.

C. Environmental Requirements:

1. Cleanliness, Sweeping and Dust Control shall be maintained in accordance with Division 01 requirements.
2. Contractor will provide noise abatement as required by environmental permits or local agency requirements in accordance with Division 01 requirements.

1.4 SITE CONDITIONS

- A. Perform preliminary investigations as required in Section 31 22 00 and in accordance with Division 01 requirements to ascertain extent of work.

1.5 SEQUENCING AND SCHEDULING

Coordinate and reschedule work as required to avoid interference with other operations of Omnitrans, as identified in the Construction Documents or in accepted schedule of site demolition, cutting and patching.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

2.2 MATERIALS

A. Nonshrink Grout:

1. Nonmetallic, noncorrosive and nonstaining.
2. Premixed with only water to be added in accordance with manufacturer's instructions at jobsite.
3. Grout to produce a positive but controlled expansion. Mass expansion not to be created by gas liberation or by other means.
4. Minimum compressive strength at 28 days to be 6500 psi.
5. Coat exposed edges of grout with a cure/seal compound recommended by grout manufacturer.

B. Epoxy Bonding Adhesive:

1. Two component, moisture insensitive adhesive manufactured for the purpose of bonding fresh concrete to hardened concrete.

C. Other Temporary or Permanent Material:

1. Other temporary or permanent Material shall be provided by the Contractor for proper execution of work in this Section.

D. Backfill Material:

1. Material used for backfill shall conform to the requirements of Section 31 23 33.

PART 3 - EXECUTION

3.1 GENERAL

- A. No party other than the Contractor shall remove demolished material from Omnitrans property.
- B. Contractor shall perform the demolition, removal, salvage, cutting and patching (including handling of demolished debris) in accordance with the Contract Plans, Project Specifications and the submitted and approved Site Demolition Plan.
- C. Sawcut Existing Pavement and Remove Structural Sections:
 1. Remove Structural Sections (Existing HMA Pavement) includes the removal of existing AC/HMA pavement and AB base to the limits shown in the plans.
 2. The outline of the AC/HMA surface to be removed shall be cut on neat lines along score lines where they exist with a power-driven saw to a minimum depth of 0.15 FT before removing the surfacing. Surfacing and base shall

be removed without damage to surfacing that is to remain in place. Damage to pavement which is to remain in place shall be repaired to a condition satisfactory to the Engineer, or the damaged pavement shall be removed and replaced with new asphalt concrete if ordered by the Engineer. Repairing or removing and replacing pavement damaged outside the limits of pavement to be replaced shall be at the Contractor's expense and no compensation will be provided thereof.

3. Removed materials shall become the property of the Contractor and shall be disposed of outside the public right of way in conformance with the provisions in Section 300-1.3 "Removal and Disposal of Materials" of the Standard Specifications for Public Works Construction 2009.
 4. All concrete that is to be removed shall be saw cut and removed to the next expansion joint or score mark. All asphalt removals shall be to a clean saw cut line. All cuts are to be perpendicular to the curb and gutter with no longitudinal cuts. No diagonal cuts will be allowed. Any curb, gutter, or sidewalk sections which are to be removed and/or reconstructed shall be replaced in minimum 5 FT sections.
- D. Remove Existing Bollards, Headwalls, Manholes, and Inlets:
1. Remove Existing Bollards, Planter, Headwalls, Manholes, and Inlets include the removal of existing reinforced concreted storm drain headwalls, manholes, and inlet structures as shown on the Plans.
 2. Removed structures shall be removed in conformance with the provisions in Section 15-3, "Removing Concrete," of the Caltrans Standard Specifications.
- E. Removed materials shall become the property of the Contractor and shall be disposed of outside the public right of way in conformance with the provisions in Section 01 74 19 - Construction Waste Management and Disposal and reference Section 300-1.3 "Removal and Disposal of Materials" of the Standard Specifications for Public Works Construction 2009.
- F. All demolition materials shall be removed to a legal disposal site. Burning of materials will not be allowed. The roadway and adjacent areas shall be left with a neat and finished appearance.

3.2 EXISTING STRUCTURES AND RELATED FACILITIES

- A. Where demolition is indicated, remove and dispose of:
1. Existing fences as identified in the Plans.
 - a. Coordinate fence removal with maintaining temporary and permanent site security.
 - b. Fence removal shall to be done to the nearest post to provide clean removal limits.
 - c. Fence removal shall include the fence posts and fence post foundations.

2. Temporary fences when no longer required to protect and secure the construction site.
 3. Structures in their entirety or portions to be demolished as indicated in the Plans.
 - a. Exposed remaining concrete faces shall be saw cut to neat lines or finished with epoxy binder and non-shrink grout.
 - b. Concrete shall be removed as required, and any remaining concrete to be utilized in the finished work or left as an existing structure shall be protected from damage and finished with epoxy binder and non-shrink grout or as indicated in the Plans.
 4. Obstructions in their entirety or portions of obstructions as indicated in the Plans; including abandoned concrete signal foundations, footings and bases located within the right-of-way shall be demolished.
 5. Removal and disposal shall be in accordance with these Specifications and the submitted and approved site demolition plan.
- B. Where salvage of material or portions of structures and related facilities is indicated, material shall be carefully removed as shown in the plans for installation of new work and neatly stacked at a location approved in advance by and in accordance with the approved Site Demolition Plan. The materials shall be left in a satisfactory condition for use by as identified in the Plans or in future projects.
- C. The Contractor shall replace or repair, at no expense to Omnitrans, any existing structure or portion of existing structure or related facility designated to remain that is damaged during removal of the portions designated for demolition.

3.3 PAVEMENT

- A. Pavement shall be demolished as indicated in the Plans and removed in accordance with the submitted and approved Site Demolition Plan.
- B. Pavement shall be removed to clean, straight lines. Saw cutting of edges to be joined is required. Saw cuts shall be a minimum depth of 1-1/2 IN.
 1. Portland cement concrete pavement (PCCP) removal shall have a second full depth relief saw cut offset 12 to 18 IN parallel to the initial saw cut unless approved otherwise.
 2. If a saw cut in concrete falls within three feet of a construction joint, cold joint, expansion joint, or edge, the concrete shall be removed to the joint or edge.
- C. Contractor shall provide surface drainage of resulting surfaces following pavement removal in accordance with Section 01 57 19 of these Specifications.
- D. Contractor shall replace at no expense to Omnitrans any existing pavement designated to remain that is damaged as a result of Contractor activities.

- E. All existing pavement markings and markers that are being relocated or removed shall be removed by sand blasting.

3.4 WIRING AND POLES

- A. Wiring and Poles designated to be removed by the Contractor shall be removed in accordance with the Plans and the approved Site Demolition Plan. No work shall be performed until clearance to proceed has been provided by the Engineer.

3.5 UTILITIES

- A. Demolition of existing utilities removed by others as shown in the Plans shall be coordinated by the Contractor with the utility companies and agencies in accordance with Division 01 of these Specifications and the approved Site Demolition Plan.
- B. Existing utilities shall be permanently or temporarily rerouted/relocated and deemed operational by Omnitrans before the existing utilities are taken out of service.
- C. Contractor shall cap and plug storm drain (sanitary sewer) and underdrains in accordance with the utility owner's standard details and instructions. Cap and plug pipe and other conduits abandoned due to demolition, with approved type caps and plugs as required by the utility owners.
- D. Abandoned utilities under railroad tracks shall be removed and backfilled or filled with slurry in accordance with these Specifications and the Project Plans and Technical Specifications.

3.6 BACKFILL OF DEMOLITION EXCAVATIONS

- A. Any shoring used for support of demolition excavations shall be removed and submitted and approved Site Demolition Plan.
- B. Excavations created by demolition activities shall be backfilled and compacted in the same manner as backfilling excavations.

3.7 CLEANING OF RIGHT-OF-WAY

- 1. Contractor shall, upon completion of the work to be performed within the right-of-way and/or properties of the Railroad and adjacent to its tracks, wire lines and other facilities, promptly remove from the Railroad right-of-way all Contractor's tools, implements and other materials whether brought upon the right-of-way by the Contractor or any subcontractors employee or agent of Contractor or of any subcontractor, and leave the right-of-way in a clean and presentable condition to the satisfaction of the Railroad.

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 31 22 00
SITE EXCAVATION AND ROUGH GRADING

PART 1 - GENERAL

1.1 DESCRIPTION

A. Definitions:

1. Unsuitable material: Debris and/or soil material judged unsuitable by Engineer for support of slabs or other site improvements.

1.2 EXTRA WORK

A. Removal and replacement of unsuitable material below design elevations will be paid for as extra work.

1. Notify Owner's agent in time to have Engineer measure and record quantity removed.
2. Recorded quantity will be basis for payment.
3. Include unit price per cubic yard on Bid Form.

1.3 QUALITY ASSURANCE

A. Compaction density test:

1. Standard Proctor, ASTM-D698.

B. Layout work by Surveyor or Civil Engineer registered in the State of California.

C. Tolerances of sub-grade:

1. Unsurfaced areas: Plus/minus 0.20 FT from required elevations.
2. Paved areas: Plus/minus 0.10 FT from required elevations.

1.4 JOB CONDITIONS

A. Protect existing facilities, utilities (overhead and underground), sidewalks, pavement.

1. Repair damaged items.
2. Cost of repair to items not indicated paid by Owner.
3. Notify Owner and make emergency repair as directed.

B. Protect graded areas against erosion.

1. Re-establish grade where settlement or washing occurs at no extra cost.

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PART 2 - PRODUCTS

2.1 MATERIALS

A. Fill materials:

1. Reasonably free of roots, organic material, trash, frozen matter, and stones larger than 6 IN.
2. Add water to dry material, as required.
3. Allow wet material to dry, as required.
4. Fill can only be obtained on site where removed from excavating and grading.
5. Provide additional off-site borrow or fill as required, at no extra cost.

B. Surplus material:

1. Remove from site.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Layout units, structures, piping, roads, parking areas and walks and establish their elevations.
- B. Perform other layout work required.
- C. Replace property corner markers to original location if disturbed or destroyed.

3.2 GENERAL

- A. Excavate for miscellaneous footings, slabs, walks and other structures.
- B. Maintain ditches and drains to provide drainage.
- C. Provide pumping if required.
- D. Do not fill under footings. If excavation is deeper than necessary, fill with concrete of same strength as footing concrete.
- E. Remove unsuitable materials which cannot be compacted as specified and replace with suitable material.
 1. Dispose material on site as directed.
 2. Dispose material off site as directed.
- F. Remove materials unsuitable to receive fill and replace with suitable material.

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PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 31 23 33

TRENCHING, BACKFILLING AND COMPACTING FOR UTILITIES

PART 1 - GENERAL

1.1 DESCRIPTION

A. Definitions:

1. Unsuitable material: Debris and/or soil material judged unsuitable by Engineer for support of slabs or other site improvements.
2. Engineer: Soils Engineer employed by Owner and empowered to undertake necessary inspections and approvals.
3. Rock excavation: Excavation of rock material which is sufficiently solid and of such strength that it cannot be loosened or broken down in a single pass with following equipment.
 - a. Late model tractor mounted hydraulic ripper equipped with single digging point sized to use with and propelled by crawler type tractor rated at a minimum 200 net flywheel horsepower, operating in low gear.
 - b. A 3/4 cubic yard hydraulic backhoe with a rock tooth.

1.2 EXTRA WORK

- A. Removal and replacement of unsuitable material will be paid for as extra work.
1. Notify Owner's agent in time to have Engineer measure and record quantity removed.
 2. Recorded quantity will be basis for payment.
 3. Include unit price per cubic yard on Bid Form.
- B. Rock excavation will be paid for as extra work.
1. Notify Owner's agent in time to have Engineer measure and record quantity removed.
 2. Recorded quantity will be basis for payment.
 3. Include unit price on Bid Form.

1.3 QUALITY ASSURANCE

A. Compaction density test:

1. Standard Proctor, ASTM-D698.

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- B. Owner will hire an independent soils laboratory to conduct in place moisture and density tests.
 - 1. Contractor to pay for retests of material not passing initial tests.
 - 2. Notify Owner at least 2 weeks prior to anticipated date of testing.
 - 3. Contractor to pay additional costs if work is delayed due to Contractor's failure to notify party as specified above.
- C. Comply with aspects of "Safety Rules and Regulations for Excavation" as promulgated by State law for state in which excavation will occur.

1.4 JOB CONDITIONS

- A. Verify location and existence of underground utilities.
 - 1. Omission or inclusion of located utility items on drawings does not constitute non-existence or definite location.
 - 2. Secure and examine local utility surveyor records for available location data.
- B. Protect existing utilities from damage.
 - 1. Repair damages to utility items.
- C. Avoid overloading.
- D. Keep surcharge sufficient distance back from edge of excavation to prevent slides or caving.
- E. Maintain and trim excavated materials in such a manner to be as little inconvenience as possible to public and adjoining property owners.
- F. Provide full access to public and private premises, to fire hydrants, at street crossings, sidewalks and other points as designated by Engineer to prevent serious interruption of travel.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Backfill material:
 - 1. As approved by Engineer.
 - 2. Free of rock cobbles, roots, sod or other organic matter, and frozen material.
 - 3. Moisture content at time of placement:
 - a. Within 3 percent of optimum moisture content.
 - b. Wet dry material, as required.

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- c. Dry wet material, as required or:
- d. Furnish off site material at no additional cost to Owner.

PART 3 - EXECUTION

3.1 GENERAL

- A. Remove and dispose materials Engineer finds unsuitable.
- B. Trench backfill and compact for underground utilities.

3.2 TRENCH EXCAVATION

- A. Excavate trenches by open cut method to depth indicated and necessary to accommodate work.
 - 1. Permission may be granted for tunnel work for crossing under crosswalks, driveways or existing utility lines.
 - 2. Such tunnels are limited to 10 FT in length.
- B. Open no more than 300 LF of trench at one time, or less, as required by Engineer.
- C. Failure to comply may necessitate shutdown of entire project until backfilling is performed.
- D. Carry rock excavations minimum of 12 IN below indicated invert elevations.
- E. Do not excavate below indicated grades unless required to remove unsuitable material.
- F. Backfill over excavations in maximum 8 IN lifts compacted to specified density.
- G. Trench size:
 - 1. Excavate only sufficient width to accommodate free working space.
 - 2. Cut trench walls vertically from bottom of trench to top of pipe, conduit, or utility service.
 - 3. Trench width at top of pipe or conduit may not exceed outside diameter of utility service by more than following dimensions:

Overall Diameter	
of Utility Service	
Excess Dimension	
33 IN and less	16 IN
more than 33 IN	24 IN
- H. Keep trenches free of water.

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- I. Brace and sheet trenches as soil conditions dictate.
- J. Do not remove until backfilling has progressed to a stage that no damage to piping, utility service, or conduit will result due to removal.

3.3 PREPARATION FOR PIPE LAYING

- A. See drawings and specific pipe material sections for embedment requirements.
- B. When discrepancy exists between those requirements and these specifications, provide type of embedment which provides greatest load factor.
- C. Types of embedment:
 - 1. Class A: Concrete cradle.
 - a. Load factors:
 - 1) 2.2 - Lightly Tamped.
 - 2) 2.8 - Carefully tamped.
 - 3) 3.4 - Reinforced Concrete with $p=0.4$ percent.
 - 2. Class 4: Concrete arch type bedding.
 - a. Load factors:
 - 1) 2.8 - Plain Concrete.
 - 2) 3.4 - Reinforced Concrete with $p=0.4$ percent.
 - 3) 4.8 - Reinforced Concrete with $p=1.0$ percent.
 - 3. Class B: First-class bedding.
 - a. Shaped bottom with tamped backfill, or:
 - b. Compacted granular bedding with tamped backfill.
 - c. Load factor:
 - 1) 1.9 - Carefully compacted backfill.
 - 4. Class C: Ordinary bedding.
 - a. Granular bedding with tamped backfill.
 - b. Load factor:
 - 1) 1.5 - Lightly compacted backfill.
- D. Form bell holes in trenches such that only barrel of pipe is firmly supported by bedding material.

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3.4 BACKFILLING

- A. Do not backfill until tests are performed on system, and system complies with specified requirements.
- B. Hand or pneumatic tamp backfill around and over pipe in lifts not exceeding 8 IN loose thickness.
- C. Compact to specified density.
- D. Exercise care in backfilling operations to avoid displacing pipe joints either horizontally or vertically and to avoid breaking pipe.
- E. Do not water flush or puddle to consolidate backfill.

3.5 COMPACTION

- A. Compact trench backfill in areas under paved roads, parking areas, sidewalks and other structures as directed by Engineer to at least 95 percent of maximum dry density.
- B. In locations where trench will not be under paved areas, compact backfill to minimum 90 percent of maximum dry density.

3.6 CLEANUP

- A. Cleanup debris resulting from work.

PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

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SECTION 32 13 13
CONCRETE PAVING

PART 1 - GENERAL

1.1 GENERAL CONDITIONS

- A. The Conditions of the Contract and Division 1 apply to this section as fully as if repeated herein.

1.2 WORK INCLUDED

- A. Provide all equipment and materials to perform all work necessary to construct the exterior concrete paving work, complete, as indicated on the Plans and as specified.
 - 1. Pedestrian concrete paving shall include but is not limited to: concrete sidewalks.

1.3 RELATED WORK

- A. Division 03 - Concrete.
- B. Division 31 – Earthwork.
- C. Division 32 – Exterior Improvements.
- D. Section 32 13 23 – Special Concrete Finishes.
- E. Section 32 13 13 – Concrete Pavers.

1.4 REFERENCES

- A. ASTM C33 – Standard Specification for Concrete Aggregates
- B. ASTM C94 – Standard Specification for Ready-Mixed Concrete
- C. ASTM C150 – Standard Specification for Portland Cement
- D. ASTM C260 – Standard Specification for Air Entraining Admixtures for Concrete
- E. ASTM C494 – Standard Specification for Chemical Admixtures for Concrete
- F. ASTM C309 – Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
- G. ACI 117 – Tolerances for Concrete Construction and Materials
- H. ACI 301 – Structural Concrete
- I. ACI 303.1 – Cast-in-Place Architectural Concrete

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- J. ACI 305.1 – Hot Weather Concreting
- K. ACI 306.1 – Cold Weather Concreting
- L. ACI 308R – Curing Concrete
- M. ACI 316R-82 – Construction of Concrete Pavements and Concrete Bases
- N. ACI 347 – Formwork for Concrete
- O. SSPWC – Standard Specifications for Public Works Construction 2009
- P. CPUC – California Public Utilities Commission, General Orders 26D and 118
- Q. California Code of Regulations Title 24 CBC

1.5 QUALITY ASSURANCE

- A. Construction minimum standards: State of California Department of Transportation, "Standard Specifications for Road and Bridge Construction," as amended to date.
- B. Should conflicts arise between standard specifications of government agencies mentioned herein and Contract Documents, Contract Documents shall govern.
- C. Where a particular type of material or method is specified, no other type of material or method will be permitted, except as described in Section 00 26 00, but balance of State Specifications shall apply.
- D. Paving work, base course, and related construction, shall be done only after all excavation and construction work which might damage the paving has been completed. Damage caused during construction shall be repaired before acceptance.
- E. Any existing paving area shall, if damaged or removed during the course of this project, be repaired or replaced under this section, unless marked for demolition. Workmanship and materials for such repair and replacement, except as otherwise noted, shall match as closely as possible those employed in existing work.

1.6 SUBMITTALS

- A. Description of Methods and Sequence of Placement.
- B. Shop Plans:
 - 1. Indicating all joint locations identified by type and shown for review
 - 2. Method of keying
- C. Product Data:
 - 1. Concrete mix design

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2. Form release agent
 3. Prefabricated control joint
 4. Preformed joint filler
 5. Sealants
 6. Slip plane joint
- D. Samples of:
1. Aggregate and sand
 2. Form facing materials
 3. Surface retarder
 4. Form release agents
- E. See Section 32 13 23 for additional finish information and submittal requirements.
- F. Delivery tickets: Copies of delivery tickets for each load of concrete delivered to the site, showing date, time of loading, time of delivery, class, strength of concrete, Contract number, mix design, slump ordered, type of cement, admixtures, name of purchasing Contractor, batch weights of all materials, number of the revolution counter when the truck left the plant, any water added at the site, and the authorizing person.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Aggregates: protect aggregates staged on-site from weather and contamination.
- B. Cement: protect sacks of cementitious materials from damp or wet conditions.
- C. Formwork: insure form lumber is stored so to preserve shape and structural integrity.

1.8 ENVIRONMENTAL CONDITIONS

- A. Comply with requirements of Division 03 for techniques of placing concrete.
- B. Concrete Paving: schedule placement to minimize exposure to wind and hot sun before curing materials are applied; avoid placing concrete if rain, snow, or frost is forecast within 24 hours. Protect fresh concrete from moisture and freezing.
- C. Formed Concrete: schedule work to minimize differences in curing conditions; when possible, apply curing compound as soon as forms are stripped.

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1.9 PRECONSTRUCTION MOCK-UP PANELS:

- A. Coordinate mock-up requirements with mock-ups specified in other sections; the same mock-up may be used for more than one purpose.
- B. Provide mock-ups simulating actual design and execution conditions for concrete mix materials, reinforcement, form work, placing sequence, form removal, curing, finishing, and methods and materials of stain removal and correction of defective work. Sample full-scale mock-up panel, 5 foot X 5 foot minimum, shall be constructed prior to start of paving.
- C. General Mock-Up Requirements:
 - 1. Schedule mock-up casting for acceptance at least 7 days prior to casting of concrete surfaces represented by the mock-ups.
 - 2. Locate mock-up panels in non-public areas accepted by the Owner.
 - 3. Mock-up sequences of forming, placing, form removal, curing, and finishing shall be reviewed and accepted by the Owner.
 - 4. Mock-up form-work shall be reviewed and accepted by the Owner's Representative before placing of concrete.
 - 5. Construct mock-up panels or areas as indicated to demonstrate the ability to cast concrete for concrete layout, banding or detail to achieve shape, color, and textured finish required.
 - 6. Continue to cast mock-ups until acceptable mock-ups are produced. Accepted mock-ups shall be the standard for color, texture, finish, and workmanship for the work of this section.
 - 7. Demonstrate in the construction of the mock-up form work the sealer material, form release agent, and curing materials and methods to be used.
 - 8. Use the same concrete mixes and placement procedures, accepted in mock-ups, in the final work, unless otherwise directed by the Owner.
 - 9. Protect accepted mock-ups from damage until completion and acceptance of the work represented by the mock-up.
 - 10. Remove mock-up panels at completion of project, as directed by the Owner.

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- D. Source of Materials: Utilize the same source, stock, or brand of concrete materials for each class or mix of concrete which is to be exposed. Do not interchange materials or mixes until an additional mock-up shows that uniformity in finish texture and color as compared to original mock-up will be maintained. If necessary, obtain and stockpile materials in sufficient quantity to ensure continuity and uniformity.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Portland Cement Concrete (Air-Entrained):
1. Ratio per Geotechnical recommendation.
 2. Conforming to ACI 325.9F, Guide for Construction of Concrete Pavements and Bases, and ASTM C94 and ASTM C231.
 3. Minimum compressive strength at 28 days shall be 3500 psi.
 4. Concrete slump shall be no less than 2 inches nor greater than 4 inches, in accordance with ASTM C143.
 5. Fine and coarse aggregates shall conform to ASTM C33.
 6. Concrete shall contain a water reducing agent to minimize cement and water content of the concrete mix at the specified slump. Water reducing agent shall conform to ASTM C494.
 7. No admixtures other than those specified shall be used in the concrete without the specific written permission of Resident Engineer in each case.
 8. Conform to Caltrans Section 26 and the Green book for Aggregate Base Courses.
- B. Steel Reinforcement:
1. Steel reinforcing bars:
 - a. Shall conform to ASTM A 615.
 - b. Bars employed as reinforcement shall be deformed type.
 - c. Bars employed as dowels shall be hot-rolled plain rounds.
 - d. Unless otherwise indicated on the Plans, reinforcing bars shall be Grade 60.
 2. Welded wire fabric reinforcement:
 - a. ASTM-A185 or ASTM-A497.
 - b. Vehicular paving: 6 x 6 - W2.9 x W2.9.

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- C. Refer to Section 32 13 23 for finish information.
- D. Dowels, load transfer devices, tie bars, etc.: ASTM-A615, Grade-60.
- E. Expansion Joint Filler:
1. Preformed, non-bituminous type joint filler conforming to ASTM D 1752, Type II, similar to Sealtight Cork Expansion Joint Filler, or approved equal or ASTM-D545, flexible foam.
 2. Thickness:
 - a. Pedestrian: 1/2"
 3. Pre-molded filler shall be one piece for the full depth and width of the joint leaving a sealant recess as indicated. Use caps to match filler width.
 4. Use of multiple pieces of lesser dimensions to make up required depth and width of joint will not be permitted.
 5. Expansion joint shall receive joint backer rod and shall be sealed with joint sealant.
- F. Sealant:
1. F.S.TT-S-00227F, Type 1, Class A, polyurethane type.
 2. Use self-leveling type for horizontal joints.
 3. Use gun grade, non-sag type for horizontal and vertical joints.
 4. Color of sealant shall be selected by the Owner's Representative from the manufacturer's full color range.
 5. Primer shall be that recommended by the sealant manufacturer for the use intended.
 6. Joint backing where required shall be as recommended by the sealant manufacturer.
- G. Bond breaker:
1. Liquid membrane, plastic film or asphalt saturated felt or paper.
 2. Bond breaker shall be round closed-cell polyethylene by DFC, Sonneborn or approved equal.
- H. Curing Materials:
1. Curing Blankets:
 - a. McTech Group UltraCure disposable curing blankets for colored or decorative concrete, or approved equal.
 2. Curing Material for Colored Concrete:

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- a. Davis Colors W-1000 Clear Cure and Seal, or approved equal.
- 3. Curing Material for Uncolored Concrete:
 - a. Curing shall be by moist curing or by use of curing compound.
 - b. Curing paper shall be non-staining, fiber reinforced laminated Kraft bituminous product conforming to ASTM C 171. 4 mil polyethylene sheeting may be substituted for curing paper.
 - c. Curing compound shall be a resin-base, white pigmented compound conforming to ASTM C 309, Type 2.

PART 3 - EXECUTION

3.1 CONSTRUCTION - GENERAL

- A. Construct to line and grade indicated.
- B. Construct in accordance with State and Federal specifications.

3.2 PREPARATION OF SUBGRADE

- A. Areas to be paved shall be compacted and brought to subgrade elevation per soils report before work of this section is performed. Final fine grading, filling, and compaction of areas to receive paving, as required to form a firm, uniform, accurate, and unyielding subgrade at required elevations and to required lines, shall be done under this Section.
- B. Existing subgrade material which will not readily compact as required shall be removed and replaced with satisfactory materials. Additional materials needed to bring subgrade to required line and grade and to replace unsuitable material removed shall be material conforming to this Section.
- C. Subgrade of areas to be paved shall be re-compacted per soils report.
- D. Excavation required in pavement subgrade shall be completed before fine grading and final compaction of subgrade are performed. Where excavation must be performed in complete subgrade, sub base, base, or pavement, subsequent backfill and compaction shall be performed per soils report.
- E. Areas being graded or compacted shall be kept shaped and drained during construction. Ruts greater than or equal to 2 feet deep in subgrade, shall be graded out, reshaped as required, and re-compacted before placing pavement.
- F. Materials shall not be stored or stockpiled on subgrade.

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- G. Disposal of debris and other material excavated under this section, and material unsuitable for or in excess of requirements for completing work of this section shall be disposed of off-site.
- H. Prepared subgrade will be inspected by Soils Engineer.
 - 1. Subgrade shall be approved before installation of gravel base course.
 - 2. Disturbance to subgrade caused by inspection procedures shall be repaired under this section of the specification.

3.3 AGGREGATE BASE COURSE

- A. Aggregate base course for paving and the spreading, grading, and compaction methods employed shall conform to standard requirements for usual base course of this type for first class road work, and the following:
 - 1. Standard Specifications for Public Works Construction Section 200-2.
- B. Aggregate material shall be applied in lifts less than or equal to 6 inches thick, compacted measure. Each lift shall be separately compacted to specified density, using a 6-ton steel wheel roller or vibratory roller equivalent to a 6-ton static roller, or an approved equivalent.
 - 1. Material shall be placed adjacent to wall, manhole, catch basin, and other structures only after they have been set to required grade and level.
 - 2. Rolling shall begin at sides and progress to center of crowned areas, and shall begin on low side and progress toward high side of sloped areas. Rolling shall continue until material does not creep or wave ahead of roller wheels.
 - 3. Surface irregularities which exceed 1/2 inch as measured by means of a 10-foot long straightedge shall be replaced and properly recompacted.
- C. Base course shall be compacted at optimum moisture content to not less than 95% of maximum density as determined by ASTM D 1557.
- D. Subgrade and base course shall be kept clean and uncontaminated. Less select materials shall not be permitted to become mixed with gravel. Materials spilled outside pavement lines shall be removed and area repaired.
- E. Portions of subgrade or of construction above which become contaminated, softened, or dislodged by passing of traffic, or otherwise injured, shall be cleaned, replaced, or otherwise repaired to conform to the requirements of this specification before proceeding with next operation.

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3.4 STEEL REINFORCEMENT

- A. Before being placed in position, reinforcing for reinforced concrete shall be thoroughly cleaned of loose mill and rust scale, dirt, ice and other foreign material which may reduce the bond between the concrete and reinforcing. Where there is delay in placing concrete after reinforcement is in place, bars shall be reinspected and cleaned when necessary.
- B. Any bar showing cracks after bending shall be discarded.
- C. Unless otherwise indicated on the Plans, reinforcing shall extend within 2 inches of form work and expansion joints. Reinforcing shall continue through control joints. Adjacent sheets of fabric reinforcing shall lap 6 inches.
- D. After forms have been coated with form release agent, but before concrete is placed, reinforcing steel anchors shall be securely wired in the exact position called for, and shall be maintained in that position until concrete is placed and compacted. Chair bars and supports shall be provided in a number and arrangement satisfactory to the Owner's Representative.

3.5 PORTLAND CEMENT CONCRETE PAVING

- A. Paving mix, equipment, methods of mixing and placing, and precautions to be observed as to weather, condition of base etc., shall meet the requirements of ACI 316R.
- B. Place concrete in accordance with ACI 301.
- C. Owner's Representative shall be notified of concrete placement sufficiently in advance of start of operation to allow his representative to complete preliminary review of the work, including subgrade, forms, and reinforcing steel, if used.
- D. Concrete shall arrive at the job site so that no additional water will be required to produce the desired slump. When conditions develop that require addition of water to produce the desired slump, permission of the Owner's Representative must be obtained. The concrete shall be transported from the mixer to its place of deposit by a method that will prevent segregation or loss of material.
- E. Work shall not be performed during rainy weather or when temperature is less than 40° F.
- F. Form areas of different colors and different materials separately.
- G. Adjacent work and existing conditions of context shall be thoroughly protected from stain and damage during entire operation. Damaged and stained areas shall be replaced or repaired to equal their original conditions.

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- H. Existing concrete, earth, and other water-permeable material against which new concrete is to be placed shall be thoroughly damp when concrete is placed. There shall be no free water on surface.
- I. Concrete which has set or partially set before placing shall not be employed. Re-tempering of concrete will not be permitted.
- J. Concrete shall be thoroughly spaded and tamped to secure a solid and homogeneous mass, thoroughly worked around reinforcement and into corners of forms.
- K. Ensure reinforcement, inserts, embedded parts, and formed joints are not disturbed during concrete placement.
- L. Place concrete continuously between predetermined construction and control joints. Do not break or interrupt successive pours such that cold joints occur.
- M. Honeycomb or embedded debris in concrete is not acceptable. Notify Owner's Representative upon discovery.
- N. When joining fresh concrete to concrete which has attained full set, the latter shall be cleaned of foreign matter, and mortar scum and laitance shall be removed by chipping and washing. Clean, roughened base surface shall be saturated with water, but shall have no free water on surface. A coat of 1:1 cement-sand grout, approximately 1/8" thick, shall be well scrubbed into thoroughly dampened concrete base. New concrete shall be placed immediately, before grout has dried or set.

3.6 CONCRETE WALK PAVING

- A. Refer to Section 32 13 23 for Concrete Finish information.
- B. On properly compacted sub-grade, install 4" layer of concrete.
 - 1. Place walk paving 1/4" above top of curb.
 - 2. Slope surface at 1:50 transversely toward curb.
 - 3. See plans for finish information.
- C. At single width walks of 8 feet or less, provide bond breaker between walk paving and back of curb.
 - 1. At other locations, provide expansion joint material between walk paving and back of curb.
- D. Provide contraction joints:
 - 1. Construct tooled (dummy) joints as indicated on plans or at 10' intervals as applicable.
 - 2. Keep joints straight and perpendicular to edge of walk unless otherwise indicated.

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GENERATOR PROJECT - SAN BERNARDINO TRANSIT CENTER

3. Locate joints as indicated on hardscape layout plans.
- E. Provide expansion joints as indicated and where walks meet other structures.
 1. Expansion joints at maximum 20 feet OC
 2. Set joint filler to within 1/2" of surface
 3. Do not seal transverse joints of single width walks
 4. Seal other joints
- F. Correct any isolated low points to eliminate ponding conditions.
 1. Correct surface deviations by removing and replacing the non-complying sections; or by grinding as approved by Engineer.
 2. Reevaluate final grade after any adjustments to insure compliance with all State and Federal universal accessibility laws.
- G. Do not place concrete where standing water is present.

3.7 EXPANSION JOINTS

- A. Unless otherwise indicated in the plans, expansion joints shall adhere to the following:
 1. Pre-molded filler shall be one piece for the full depth and width of the joint leaving a sealant recess as indicated on the plans. Utilize caps to match filler width.
 2. Use of multiple pieces of lesser dimensions to make up required depth and width of joint will not be permitted.
 3. Except as otherwise noted on the drawings, joint filler shall be 1/4" thick.
- B. Expansion joint shall receive joint backer rod and shall be sealed with joint sealant.

3.8 CONTROL JOINTS

- A. Control joints (noted as score lines or "paving joint" on plans) shall meet the requirements of weakened plan joints in conformance with SSPWC 2009, Section 302-6.5.4.
- B. Unless otherwise dimensioned on the Plans, control joints shall be located 10 feet OC maximum, integrated into jointing pattern on Plans.
- C. Saw cut joints shall be sawn using a diamond blade concrete power saw. Joint shall be made after concrete is finished and when the surface is stiff enough to support the weight of workmen without damage to the slab. If early sawing causes undercutting or washing of the concrete, delay the sawing operation and repair the damaged areas.

ATTACHMENT A – TECHNICAL SPECIFICATIONS
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- D. Saw shall cut into slab no less than 25% of slab depth. Cuts shall be full depth for entire area indicated; no radical transitions. Hand cut with hand saw radial end ducts for full cut.
- E. The saw cut shall not vary more than 1/4" from the true joint alignment. Discontinue sawing if a crack develops ahead of a saw cut. Immediately after each joint is sawed, thoroughly clean the saw cut and adjacent concrete surface. Re-spray surfaces treated with curing compound which are damaged during the sawing operations as soon as the water disappears. Protect joints in a manner to prevent the curing compound from entering the joints.
- F. Unless otherwise indicated, score lines shall be tooled into the concrete slab in pattern indicated on the Plans, or every 10 feet OC maximum. Joint shall be made after concrete is finished and when the surface is stiff enough to support the weight of workmen without damage to the slab, but before slab has achieved its final set.

3.9 CONSTRUCTION JOINTS

- A. Transverse construction joints shall be placed whenever placing of concrete is suspended for more than 30 minutes. All joints may not be shown on drawing; adhere to locations or patterns shown on plans where possible.
 - 1. Butt joint with dowels and thickened edge joint shall be used if construction joint occurs at location of control joint.
 - 2. Keyed joints with tie bars shall be used if the joint occurs at any other location.

3.10 SEALING OF JOINTS

- A. Sealant for sealing of control joints and expansion joints in concrete paving shall be a two component polyurethane based sealant conforming to ASTM C920, Type M, Grade P, Class 25, Use T1 with a Shore A hardness of 30 plus or minus 5, or better.
- B. Verify color of sealant with Owner's Representative; primer shall be utilized as recommended by the sealant manufacturer for the use intended.
- C. Joint backing shall be as recommended by the sealant manufacturer.

ATTACHMENT A – TECHNICAL SPECIFICATIONS
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3.11 CURING AND SEALING

- A. Keep concrete continuously damp from time of placement until end of specified curing period. Water is not to be added to surface during floating and troweling operations, and not earlier than 24 hours after concrete placement. Between finishing operations, protect surface from rapid drying by a covering of waterproofing paper. Surface shall be damp when the covering is placed over it, and shall be kept damp by means of a fog spray of water, applied as often as necessary to prevent drying, but not sooner than 24 hours after placing concrete. None of the water so applied shall be troweled or floated into surface.
- B. All concrete shall be cured with new, non-staining, curing paper and sealed with a penetrating, non-gloss finish sealer. The concrete shall be at least one month old, dry, clean, and free of dust, paint plaster, oils and waxes, curing compounds, and other marks and discoloration.
- C. If concrete is cured with a curing compound, compound shall be applied at a rate of 200 SQ FT/GAL, in 2 applications perpendicular to each other.
- D. Maintain concrete between 65-85° F during curing.
- E. Curing Colored Concrete:
 - 1. Colored concrete shall not under any circumstances, be cured using water fog misting or ponding, burlap, plastic sheeting, or other wet covering.
 - 2. Curing material and method shall be in strict conformance with manufacturer's guidelines and recommendations.
 - 3. Only if additional protection is absolutely required, the surface should remain uncovered for at least 4 days, after which time new and unwrinkled non-staining reinforced waterproof Kraft curing paper may be used.
- F. Sealant:
 - 1. General:
 - a. Color of sealant shall be selected by the Owner's Representative from the manufacturer's full color range.
 - b. Primer shall be that recommended by the sealant manufacturer for the use intended.
 - c. Joint backing where required shall be as recommended by the sealant manufacturer.

3.12 PATCHING

- A. Patching is limited to 2% of any exposed surface.

ATTACHMENT A – TECHNICAL SPECIFICATIONS
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- B. Patch voids larger than 3/4" wide or 1/2" deep; remove projections larger than 1/2"
- C. Immediately after removing forms, patch minor defects and honeycombed area; patch before concrete is thoroughly dry.
- D. Repair by cutting back to full solid surface and in a manner to form a key for cement mortar fill.
- E. Thoroughly wet areas to be patched prior to placing patching mortar.
- F. Patch and compact patching material into place; neatly finish exposed surface. Match adjoining surface per accepted mockup.

3.13 TOLERANCES

- A. Unless otherwise noted, conform to ACI 302.1R.

3.14 PROTECTION OF CONCRETE SURFACES

- A. Concrete surfaces shall be protected from traffic or damage until surfaces have hardened sufficiently. If necessary, 1/2-inch-thick plywood sheets shall be used to protect the exposed surface.

PART 4 - MEASUREMENT AND PAYMENT

- A. Refer to Section 01 22 00, Part 4, regarding measure and payment.
- B. Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

ATTACHMENT A – TECHNICAL SPECIFICATIONS
HRS18-68
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ATTACHMENT A – TECHNICAL SPECIFICATIONS
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SECTION 32 13 23
SPECIAL CONCRETE FINISHES

PART 1 - GENERAL

1.1 GENERAL CONDITIONS

- A. The Conditions of the Contract and Division 1 apply to this section as fully as if repeated herein.

1.2 SCOPE OF WORK

- A. Integrally colored concrete with surface retardant.
- B. Integrally colored concrete with surface retardant and specialty aggregate.
- C. Exposed aggregate concrete.

1.3 RELATED WORK

- A. Section 32 13 13 - Concrete Paving.
- B. Division 03 - Concrete.

1.4 REFERENCES

- A. ASTM C33 – Standard Specification for Concrete Aggregates
- B. ASTM C260 – Standard Specification for Air Entraining Admixtures for Concrete
- C. ASTM C494 – Standard Specification for Chemical Admixtures for Concrete
- D. ASTM C979 – Standard Specification for Pigments for Integrally Colored Concrete
- E. ACI 117 – Tolerances for Concrete Construction and Materials
- F. ACI 303.1 – Cast-in-Place Architectural Concrete

1.5 QUALITY ASSURANCE

- A. Perform work in accordance with ACI 301.
- B. Work is to be performed by an installer regularly engaged in installation of architectural concrete having a record of successful installations acceptable to the Owner's Representative.

1.6 SUBMITTALS

- A. For each type of specialty-finished concrete indicated on Plans, provide description of methods and sequence of placement.

ATTACHMENT A – TECHNICAL SPECIFICATIONS
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B. Product Data:

1. Concrete mix design
2. Concrete additives
3. Curing products
4. Form facing materials
5. Form releasing agents
6. Proprietary cleaning agents
7. Surface retardants

C. Samples of:

1. Concrete color additive (sample chips) for verification
2. Additional/specialty aggregate and sand

1.7 DELIVERY, STORAGE AND HANDLING

- A. Color Additives: Comply with manufacturer's instructions; deliver to site or batch plant in original, unopened packaging and store in dry conditions. Schedule delivery of concrete to provide consistent mix times from time color additive is placed in mixture until placement of concrete on site.
- B. Aggregates: protect aggregates staged on-site from weather and contamination.

1.8 ENVIRONMENTAL CONDITIONS

- A. Comply with requirements of Division 03 for techniques of placing concrete.
- B. Concrete Paving: schedule placement to minimize exposure to wind and hot sun before curing materials are applied; avoid placing concrete if rain, snow, or frost is forecast within 24 hours. Protect fresh concrete from moisture and freezing.
- C. Formed Concrete: schedule work to minimize differences in curing conditions; when possible, apply curing compound as soon as forms are stripped.

1.9 PRECONSTRUCTION MOCK-UP PANELS:

- A. Coordinate mock-up requirements with mock-ups specified in other sections; the same mock-up may be used for more than one purpose.

ATTACHMENT A – TECHNICAL SPECIFICATIONS
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- B. Provide mock-ups simulating actual design and execution conditions for concrete mix materials, reinforcement, form work, placing sequence, form removal, curing, finishing, and methods and materials of stain removal and correction of defective work. Sample full-scale mock-up panel, 5-foot X 5-foot minimum, shall be constructed prior to start of paving.
- C. General mock-up requirements:
1. Schedule mock-up casting for acceptance 7 days prior to casting of concrete surfaces represented by the mock-ups.
 2. Locate mock-up panels in non-public areas accepted by the Owner.
 3. Mock-up sequences of forming, placing, form removal, curing, and finishing shall be reviewed and accepted by the Owner.
 4. Mock-up form-work shall be reviewed and accepted by the Owner's Representative before placing of concrete.
 5. Construct mock-up panels or areas as indicated to demonstrate the ability to cast concrete for concrete layout, banding or detail to achieve shape, color, and textured finish required.
 6. Continue to cast mock-ups until acceptable mock-ups are produced. Accepted mock-ups shall be the standard for color, texture, finish, and workmanship for the work of this section.
 7. Demonstrate in the construction of the mock-up form work the sealer material, form release agent, and curing materials and methods to be used.
 8. Use the same concrete mixes and placement procedures, accepted in mock-ups, in the final work, unless otherwise directed by the Owner.
 9. Protect accepted mock-ups from damage until completion and acceptance of the work represented by the mock-up.
 10. Remove mock-up panels at completion of project, as directed by the Owner.
- D. Source of materials: Utilize the same source, stock, or brand of concrete materials for each class or mix of concrete which is to be exposed. Do not interchange materials or mixes until an additional mock-up shows that uniformity in finish texture and color as compared to original mock-up will be maintained. If necessary, obtain and stockpile materials in sufficient quantity to ensure continuity and uniformity.

ATTACHMENT A – TECHNICAL SPECIFICATIONS
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PART 2 - PRODUCTS

2.1 CONCRETE MIX

- A. Mixes shall result in concrete to match approved samples.
- B. Mix color additives in accordance with manufacturer's instructions until color additives are uniformly dispersed throughout mixture and disintegrating bags, if used, have completely disintegrated or their remnants are removed.
- C. Mix in admixtures of quantities specified and in accordance with manufacturer's instructions; maintain consistent quantities throughout job.
- D. Maintain water content as constant as possible; use only fresh, clean and potable water.
- E. Control slump (4") to maintain constant color; if greater slump is required, use water-reducing or super-plasticizing admixture; do not add water.
- F. Do not retemper mix or add water in field.

2.2 SPECIALTY AGGREGATES

- A. Must adhere to ASTM C33
- B. Type: Fine-graded silica carbide
- C. Size: 16/36
- D. Application rate: 0.20 to 0.25 pounds per square foot

2.3 COLOR ADMIXTURE:

- A. Must adhere to ASTM C979; do not use calcium chloride admixtures.
- B. Color admixture shall be of a type and quality which will not adversely affect workability, setting, or strength of concrete. Color pigments shall consist of chemically inert, non-fading, alkali-fast mineral oxides, finely ground and specially prepared for the use in both cement and mortar.
- C. Mix design shall conform to manufacturer's recommendations, and directions of the Owner's Representative to achieve desired color. Strictly monitor additive/cement ratio throughout job to ensure uniform color.
- D. Shall be factory-formulated and packaged in one cubic yard dosage increments, preferably in pre-measured mix-ready disintegrating bags.
- E. Manufacturer: Davis Colors or approved equal.
- F. Colors:
 - 1. Miami Buff #5447

ATTACHMENT A – TECHNICAL SPECIFICATIONS
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2.4 SURFACE RETARDER

- A. Must comply with ACI 303.1 and ASTM C494.
- B. Manufacturer: Dayton Superior TopCast or approved equal.
- C. Apply in accordance with manufacturer's recommendations.

PART 3 - EXECUTION

3.1 FINISHES

- A. See drawings for finish schedule.
- B. All finishes shall be consistent throughout and shall match approved mock-up and be per product instructions, if used.
- C. Where finishing is performed before end of curing period, concrete shall not be permitted to dry out and shall be kept continuously moist from time of placing until end of curing period, or until curing membrane is applied.
- D. Broom Finish:
 - 1. Pull broom across freshly floated concrete to produce medium texture in straight lines perpendicular to main direction of travel.
 - 2. Do not dampen brooms.
- E. Trowel Finish:
 - 1. Provide smooth surface; hard-trowel to densify surface.
 - 2. Do not over-trowel or begin troweling late.
 - 3. Hand-trowel: use steel trowel.
 - 4. Machine-trowel: Use steel-reinforced plastic or steel trowel blades.
- F. Abraded/Retarded Surface:
 - 1. Utilize Surface Retardant per manufacturer's recommendations.
 - 2. Standard TopCast finish gradation applies; adhere to final finish exposure size as closely as possible.

3.2 APPEARANCE TOLERANCES

- A. Appearance: Minor variations in appearance of integrally colored concrete that are similar to natural variations in color and appearance of uncolored concrete are acceptable.

3.3 CLEANING

- A. Efflorescence: Remove efflorescence as soon as practical after it appears and as part of final cleaning.

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- B. Use least aggressive cleaning techniques possible.
- C. Do not use muriatic or hydrochloric acid on integrally colored concrete.
- D. If proprietary cleaning agents are used, pre-wet surface, test cleaning agent on small, inconspicuous area, and check effects prior to proceeding. At walls, begin cleaning at top and work downward. Thoroughly rinse surface afterward with clean water. Follow cleaner manufacturer's instructions.

3.4 DEFECTIVE CONCRETE

- A. Modify or replace concrete not conforming to required color, texture, levels and lines, details and elevations.
- B. Repair or replace concrete not properly finished or of the specified type.

3.5 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Section 32 13 13.

3.6 PROTECTION

- A. Protect finished work under provisions of Section 32 13 13.
- B. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- C. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- D. Defer to manufacturer's recommendations when curing concrete containing specialized or proprietary additives; confirm process with Owner's Representative.

3.7 CLEANING

- A. When desired finish is achieved, wash and rinse exposed aggregate surface with water or with trisodium phosphate and water, if necessary.

ATTACHMENT A – TECHNICAL SPECIFICATIONS
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PART 4 - MEASUREMENT AND PAYMENT

Work of this Section is considered incidental to work under other payment items and no separate measurement and payment will be made to the Contractor for Work of this Section. Work of this section shall include furnishing all labor, materials, tools, equipment, supplies, supervision, and incidentals necessary as described by the Contract Documents.

END OF SECTION

ATTACHMENT A – TECHNICAL SPECIFICATIONS
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OMNITRANS - SAN BERNARDINO COUNTY PUBLIC TRANSIT

SAN BERNARDINO TRANSIT CENTER OMNITRANS BUS FACILITY (SBTC)

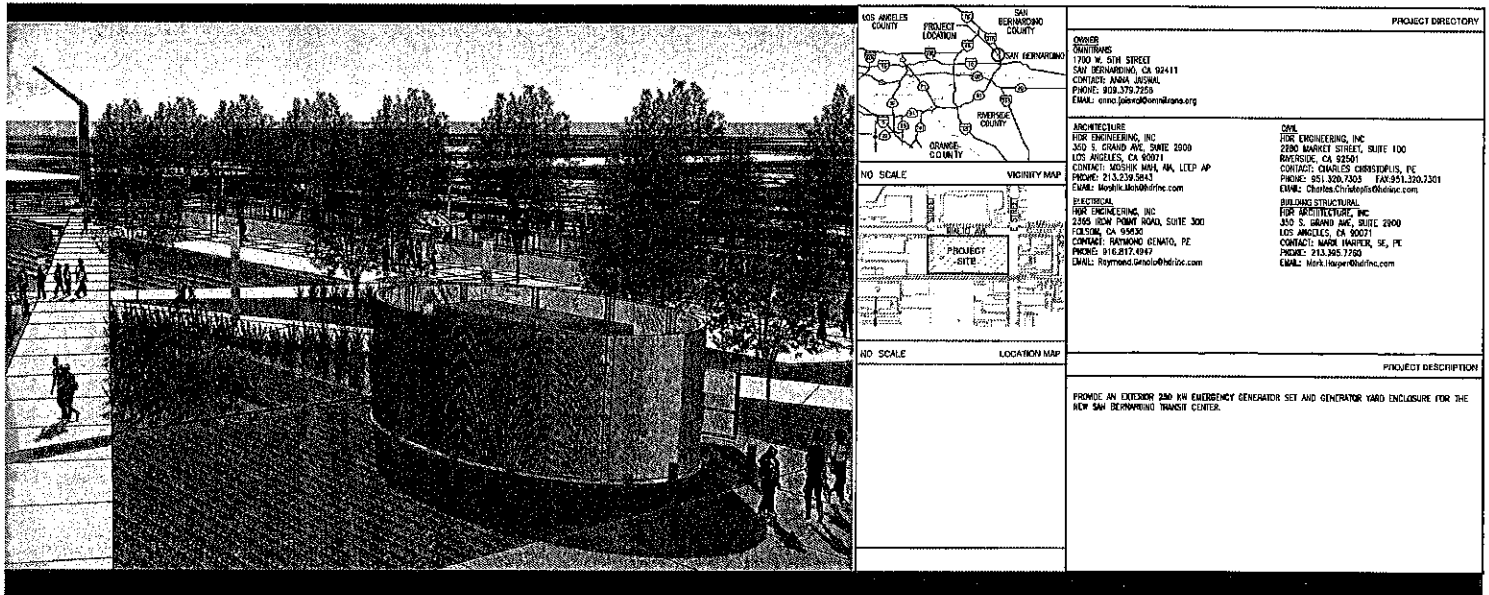
599 WEST RIALTO AVENUE SAN BERNARDINO, CA 92410

EMERGENCY GENERATOR MODIFICATIONS BID SET

HDR CONTRACT No. C12077/100612 PERMIT No. MM15-30 B1600167 OMNITRANS No. HRS18-68

APN#0136-021-23,24,25; 0136-021-12; 0136-021-28

JANUARY 4, 2018



SUBMITTED BY: Moshi Mah, Design Principal DATE: 1/4/18



SYMBOLS:

	SECTION ON DRAWINGS		TRASH RECEPTACLE
	DRAWING NUMBER ON SHEET NUMBER		SEE SYMBOL, LEGEND PER SHEET
	ELEVATION ON DRAWINGS		WORKING POINT, DATUM POINT
	ELEVATION NUMBER ON SHEET NUMBER		NORTH ARROW
	INTERIOR ELEVATION ON DOOR		SCALE BAR
	DRAWING NUMBER ON SHEET NUMBER		BREAK LINE
	DIRECTION OF VIEW		FIRE EXTINGUISHER CABINET - SURFACE MOUNTED
	DETAIL ON DRAWINGS		
	DRAWING NUMBER ON SHEET NUMBER		
	LOCATION OF DETAIL		
	SECTION/DETAIL		
	SCALE		
	SECTION NUMBER		
	SHEET NUMBER		
	DRAWING TITLE		
	DRAWING SCALE		
	ROOM NUMBER/STAIR-ESCALATOR NUMBER		
	ROOM NAME		
	COLUMN CENTERLINE		
	STRUCTURAL GRID (IDENTIFICATION)		
	STRUCTURAL GRID LINE		
	CENTER LINE		
	PRIORITY LINE		
	FLOOR ELEVATION-PLAN		
	PROJECT ELEVATION		
	ELEVATION ON SECTION		
	DESCRIPTION		
	PROJECT ELEVATION		
	SPOT ELEVATION-PLAN		
	PROJECTION DIMENSION (CROSSHAIRS) (X)		
	INDICATE SPOT		
	PARTITION TYPE		
	PARTITION TYPE NUMBER		
	WINDOW TYPE		
	WINDOW NUMBER		
	DOOR TYPE		
	DOOR NUMBER		
	REVISION NUMBER		
	CHaise LONGUE		
	FINISH CODE		

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GENERAL NOTES TO CONTRACTOR

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LEGEND

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ABDREWMATHOMIS

[illegible][illegible]

BENCH MARK / BASIS OF MEASUREMENT

[illegible]

POB: M 19912725, E 6766472.6, GRID POINT = 166.79°
LAT: M 161035.5, E 1663647.0, GRID POINT = 165.64°

LOCAL PRODUCT COUNCIL, AS DETERMINED FROM THE ABOVE-REPRODUCED PARENT COUNCIL, IS AS FOLLOWS:

GOS BLUE STAZZAR 999, IN REVERSED, E APPROX 10, DIV-1627/82, SET FROM STATE AND MARCH STARTED U.S. 2014". 232' WEST OF THE NORTH BEACH OR "E STREET, AT SOUTH OF THE SOUTH POINT OF BAY LINE OF THE SHARPENING.

12654, N 159°P23.55, E 373420.00, DIST=1026.35, SCI SCORED X IN QUARTZ W/IT, 1' SOUTH OF THE END OF GRID AT THE SOUTH ALBERT OF WAY OF BULLY MOUNT, 2' WEST OF THE SOUTH PREDOMINANCE OF THE CONTINENT OF 1' SENEAL.

TRAIL, N. 169179403, E. 61353523, ELEV. 1611.34, SET SLORED N IN CORNER WHERE AT THE S.W. INTERSECTION OF ALTO RIVER AND E. TRAIL, OFF SOUTH OF THE FOOT OF CLARK, E. WEST OF THE WEST CORNER REMAIN ALONG FLOOD CHANNEL.

THE HISTORICAL BASIS FOR THE ABOVE-MENTIONED PROJECT CONTROL IS THE NORTH AFRICAN (AFRICAN) OF 1948. THIS PARTY PROPOSED A PROJECT WHICH IT WAS TO BE THE MAIN-ARMED FOR THE CONTROL OF THE TERRITORY OF THE

M.S. DUKHAYEK W 471, PO BOX 207, ALBANY, NY 12242.

TRANSIT CENTER

ILANSON CENTER

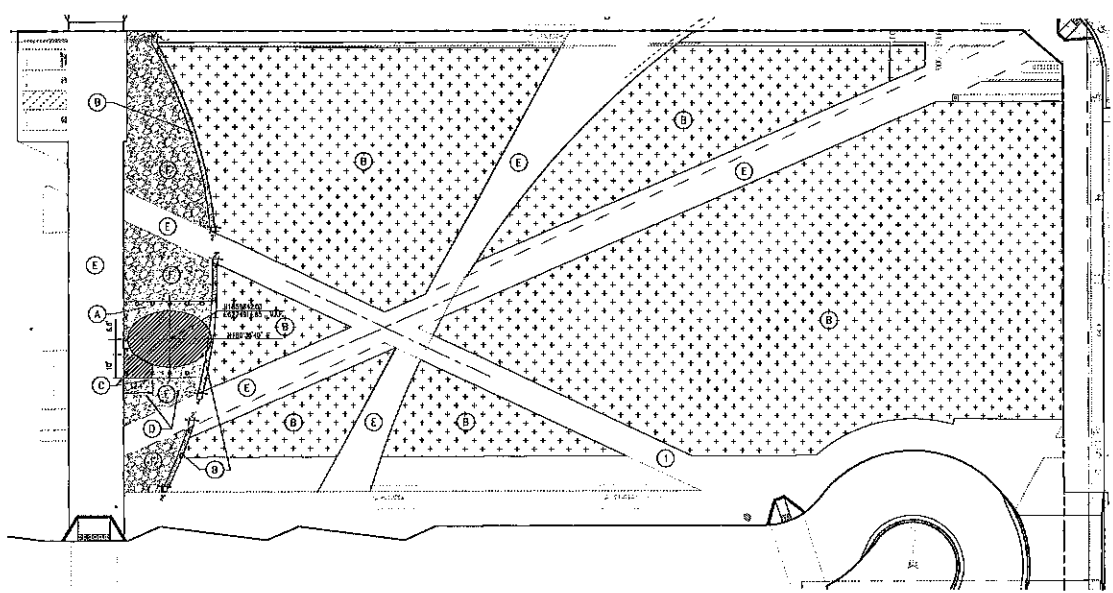
CIVIL

GENERAL NOTES, LEGENDS & CONSTRUCTION

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- GENERAL NOTES**
- SEE A-1003 FOR BALLING AND EQUIPMENT PAD DIMENSIONS AT VEGETATION AREA.
 - ALL TREES IN SHOWNED COLOR ARE EXISTING. PROTECT IN PLACE.

- DEMOLITION NOTES**
- (A) REMOVE EXISTING DECORATIVE DRIVEWAY, REPLACE PLANTING, AND LANDSCAPE WITH EXISTING PLANT AND BALLING AREA, SEE C-204, B-TREE FOR FAN AND BALLING LAYOUT.
 - (B) LANDSCAPE NOT IN CONTRACT.
 - (C) EXISTING UTILITY EXHAUST, V.I.F., PROTECT IN PLACE.
 - (D) EXISTING TREES, V.I.F., PROTECT IN PLACE.
 - (E) EXISTING PATIOLINE, PROTECT IN PLACE.
 - (F) EXISTING DECORATIVE DRIVEWAY, PROTECT IN PLACE.

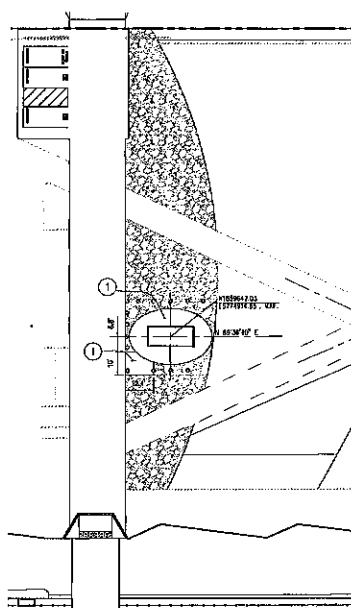


DEMOLITION PLAN
125

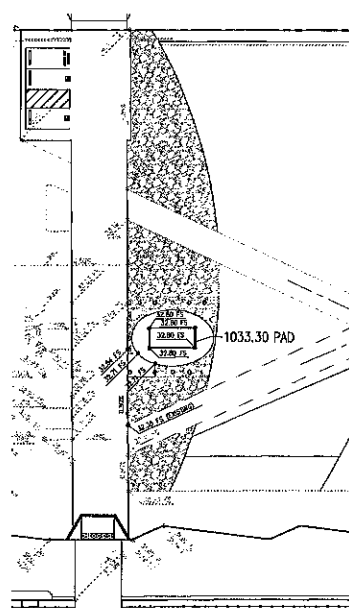
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1. SEE 3-104C FOR COLLARD AND EQUIPMENT PAD DIMENSIONS AT GENERATOR AREA

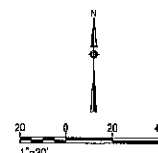
① CONSTRUCT 8" PCC PAVEMENT OVER 6" GAB, WHICH PER FLANK, COULD JOINT BETWEEN NEW AND EXISTING. SEE SHEET L-NB FOR CONCRETE FINISH, SEE 7/A-401 FOR EQUIPMENT PAD DETAIL.



LAYOUT PLAN



GRADING PLAN



91.04.16 GENERATOR AND/OR MOTOR BED SET		PROJECT NO. CORNERUS DRAWING NO. C-204		CONTRACT NO. C12677 / 1006	
DESIGNED BY BLANK CHECKED BY BLANK APPROVED BY BLANK DATE 01.04.18		 HDR 801 S. GROUND AVENUE Suite 100 Los Angeles, CA 90058-1433		 CITY OF LOS ANGELES CIVIL	
SUBMITTER: PROJECT NUMBER APPROVED: _____		TRANSIT CENTER LAYOUT & GRADING PLAN - GENERATOR AREA		SHEET NO. _____ OF _____ SCALE: 1"=30'	

RIALTO AVENUE

HARDSCAPE LEGEND

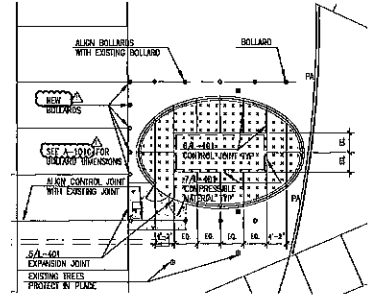
- CONCRETE TYPE 1
- CONCRETE TYPE 2
- LANDSCAPE EXTERIOR
- BOLLARD
- EXISTING TREES
- PLANTING AREA - SEE PLANTING PLANS

HARDSCAPE AND LAYOUT NOTES

- SEE SPECIFICATIONS FOR MATERIAL, SAMPLE AND INSPECTION REQUIREMENTS
- LAYOUT AND SHARE ALL PLANS FOR APPROVAL WITH OWNER COORDINATION PRIOR TO CONSTRUCTION

CONCRETE FINISHES:

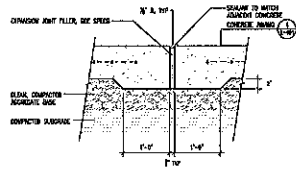
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- TYPE 2: NATURAL GRAY, FLAT



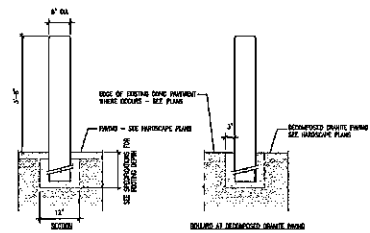
HARDSCAPE PLAN
1"=20'-0"

ENLARGED PAVING PLAN
1"=10'-0"

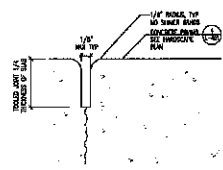
DESIGNED BY: R. HARRIS DRAWN BY: E. GUERRERO CHECKED BY: A. COITIN APPROVED BY: A. COITIN DATE: 03.11.17 SUBMITTED: [REDACTED]		200 S. DOWD AVENUE LOS ANGELES, CA 90044-3408 PROJECT NO. 1700000		TRANSIT CENTER HARDSCAPE PLAN		DATE: 03/11/2017 DRAWING NO. L-101 REVISION: 01 SCALE: AS NOTED



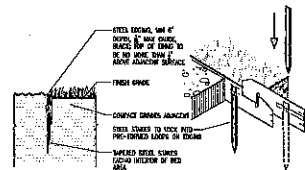
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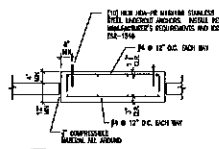
FIXED BOLLARD 1
NOT TO SCALE



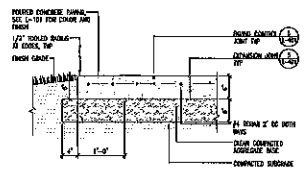
CONTROL JOINT 6
NOT TO SCALE



LANDSCAPE EDGER 2
NOT TO SCALE

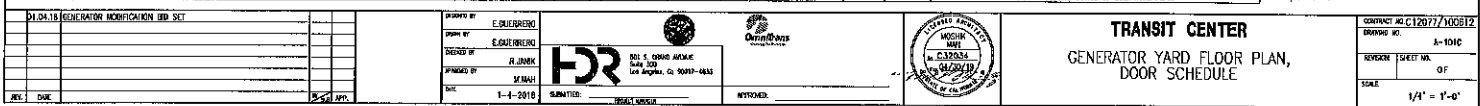


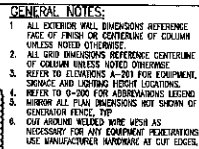
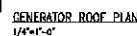
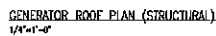
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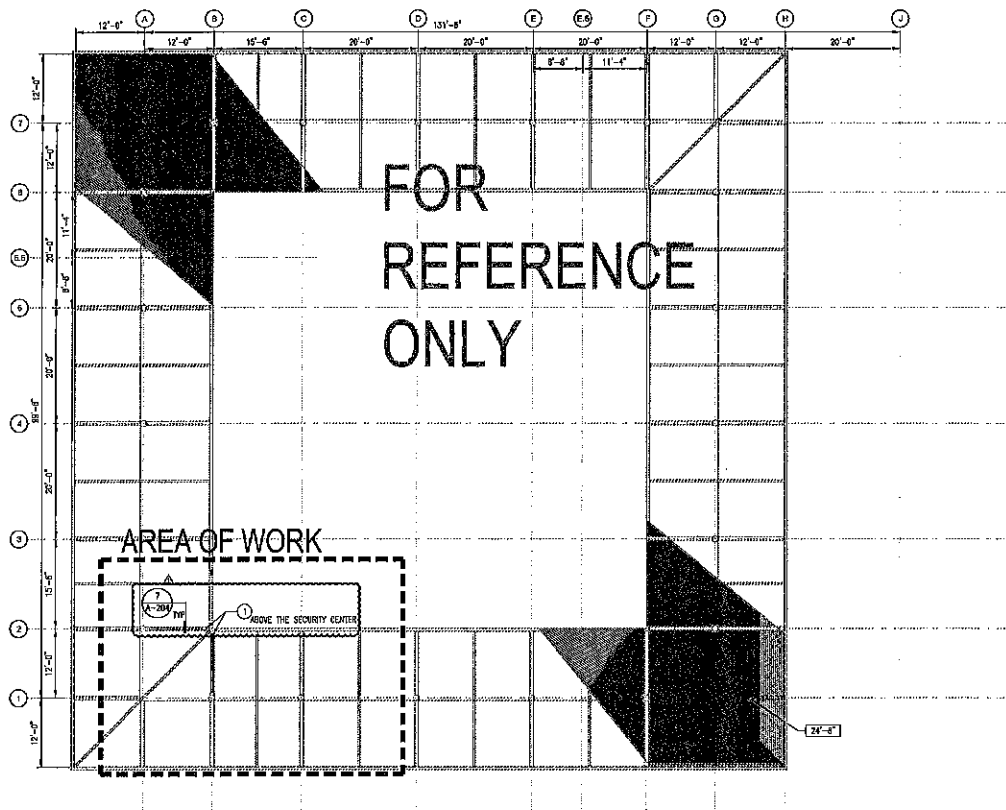
01.04.17 GENERATOR MODIFICATION TND SET		DESIGNED BY H. HANCO	 HDR 800 S. GARDEN AVENUE LAWRENCE, KS 66044-3408		TRANSIT CENTER LANDSCAPE DETAILS		CONTRACT NO. C12077/100612	
		CHECKED BY M. CLARKE					DRAWING NO. L-401	
		APPROVED BY A. COITINI					REVIEWED SHEET NO. OF	
		DATE 01.04.17					SCALE AS NOTED	
REV	DATE	BY	APP	DATE	BY	APP		




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KEY NOTES:
WELDED WIRE MESH → GALVANIZED & PAINTED
HSS SUPPORTS FOR WIRE MESH ROOF

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- GENERAL NOTES:**
1. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING FOR PIPING AND CONSULT TO EXPOSED CEILING AREAS. REFER TO STRUCTURAL FOR ALL EXPOSED STRUCTURAL MEMBERS. EXPOSED PIPING AND STRUCTURAL MEMBERS SHALL BE FINISHED WHITE COLOR. UNO PLAN DIMENSIONS ARE TO FACE OF FINISH. SEE ELECTRICAL REFLECTED CEILING PLAN FOR FUTURE LAYOUT.
 2. REFER TO SCHEDULED REFLECTED CEILING PLANS FOR DETAIL CALL OUTS AND DIMENSIONS NOT SHOWN IN 1/8" SCALE PLAN.
 3. REFER TO ENLARGED PLANS FOR ADDITIONAL INFORMATION NOT SHOWN IN SCHEDULED PLANS. FINISH FLOOR 0'-0" = 1033.33'. REFER TO ONE.
 4. ONLY BOLD DIMENSIONS ARE PART OF CONTRACT.
- KEY NOTES:**
1. LIGHT FIXTURE-SEE LEGEND BELOW

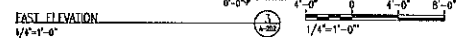
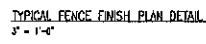
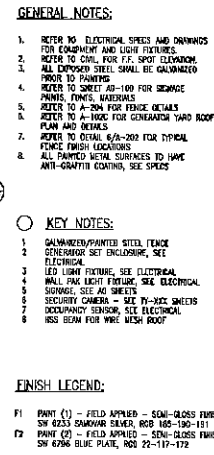
REFLECTED CEILING LEGEND:

— RECESSED CEILING LIGHT
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CANOPY REFLECTED CEILING PLAN
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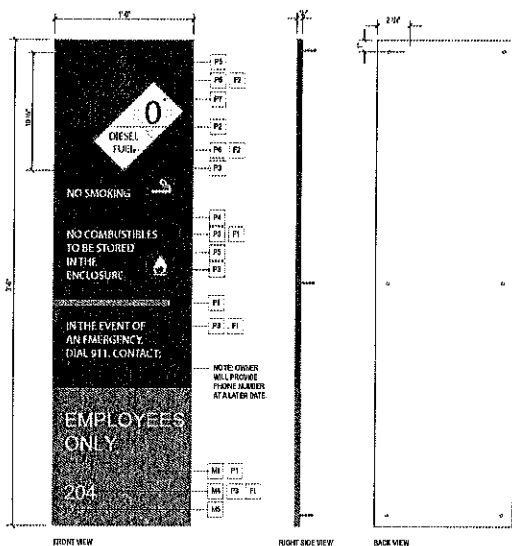
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19.11.11 GENERATOR MODIFICATION SET ADDENDUM I 20.10.11 GENERATOR MODIFICATION SET SET		DESIGNED BY: E. GONZALEZ DRAWN BY: E. GONZALEZ CHECKED BY: M. LARIN DATE: 3.11.2018		 300 S. GRAND AVENUE Suite 300 Los Angeles, CA 90013-3308		 CHAMBRAN ENGINEERS				TRANSIT CENTER GENERATOR YARD EXTERIOR ELEVATIONS		HSR CONTRACT C1207/1006412 DRAWING NO. A-302 SHEET 01 OF SCALE 1/8"=1'-0"	

**SENSITIVE
SECURITY
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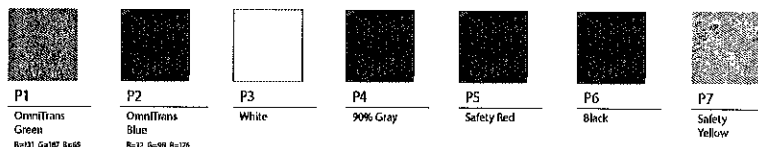
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F2
Helvetica Medium

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F1
DIN Medium

2 FONTS



3 PAINT COLORS

1 SIGN - ROOM 10 EXTRA LARGE
SCALE 2/1



M1
Acrylic



M4
Photopolymer
Tactile Letter
or Number



M5
Photopolymer
Grade 2
Braille

4 MATERIALS



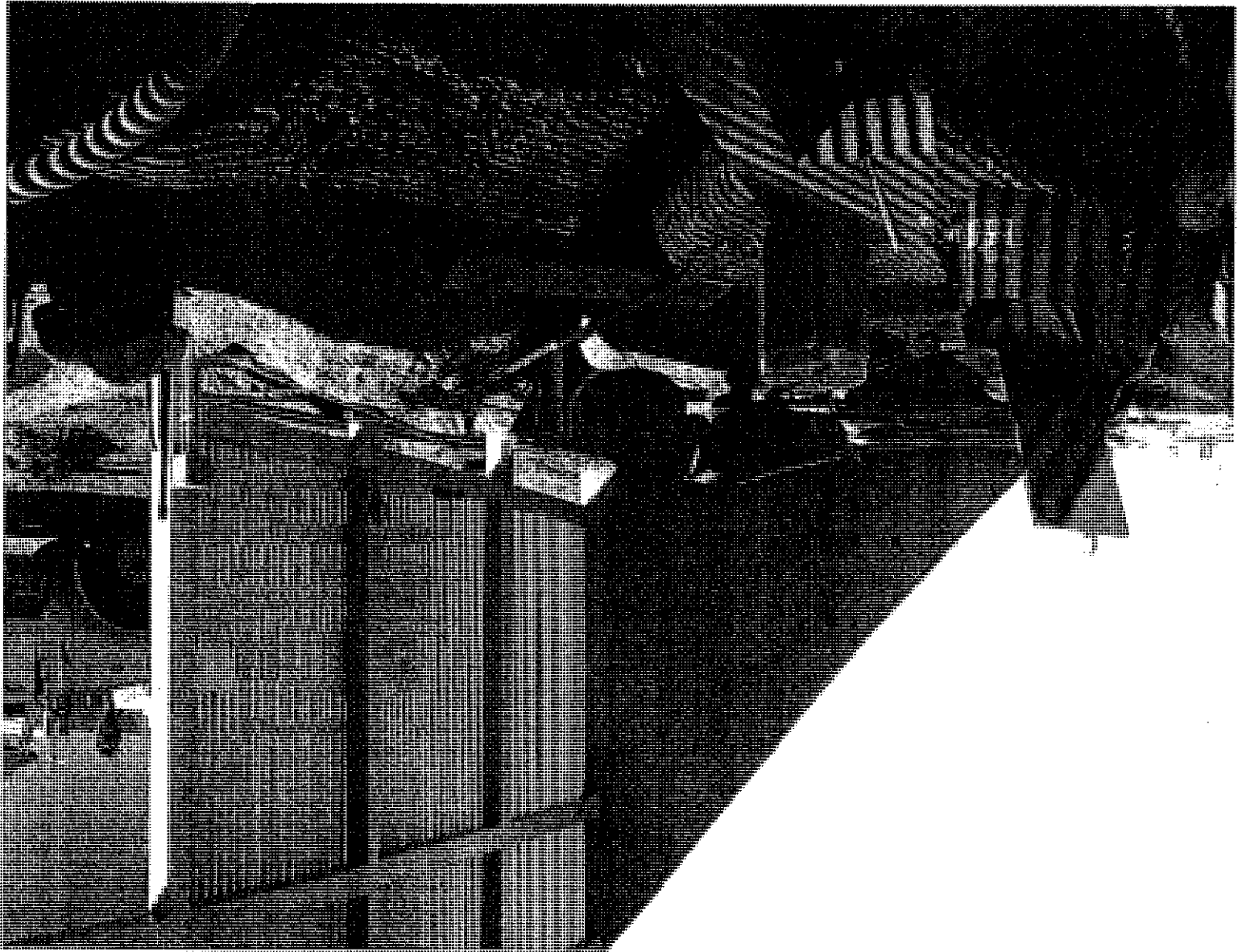
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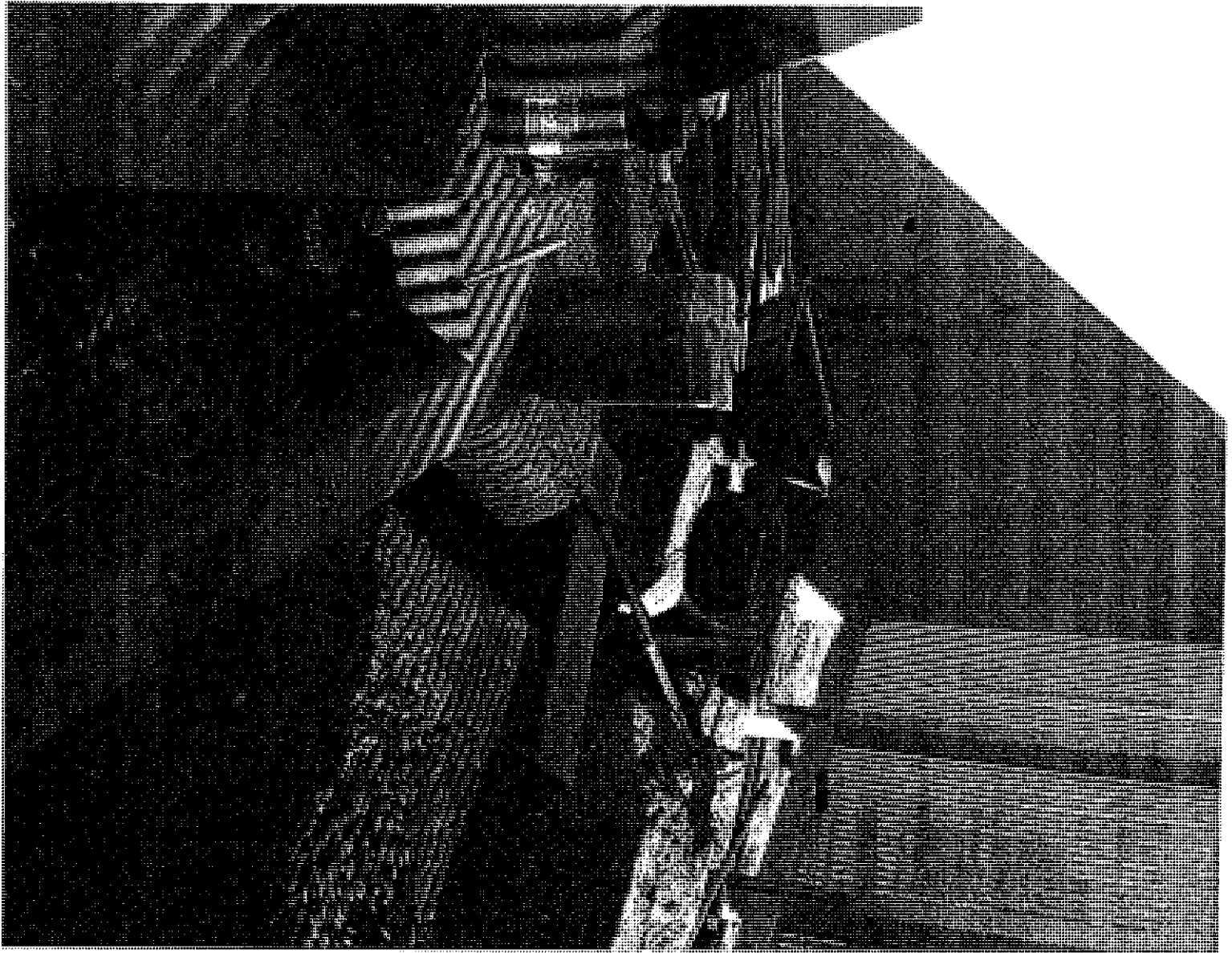


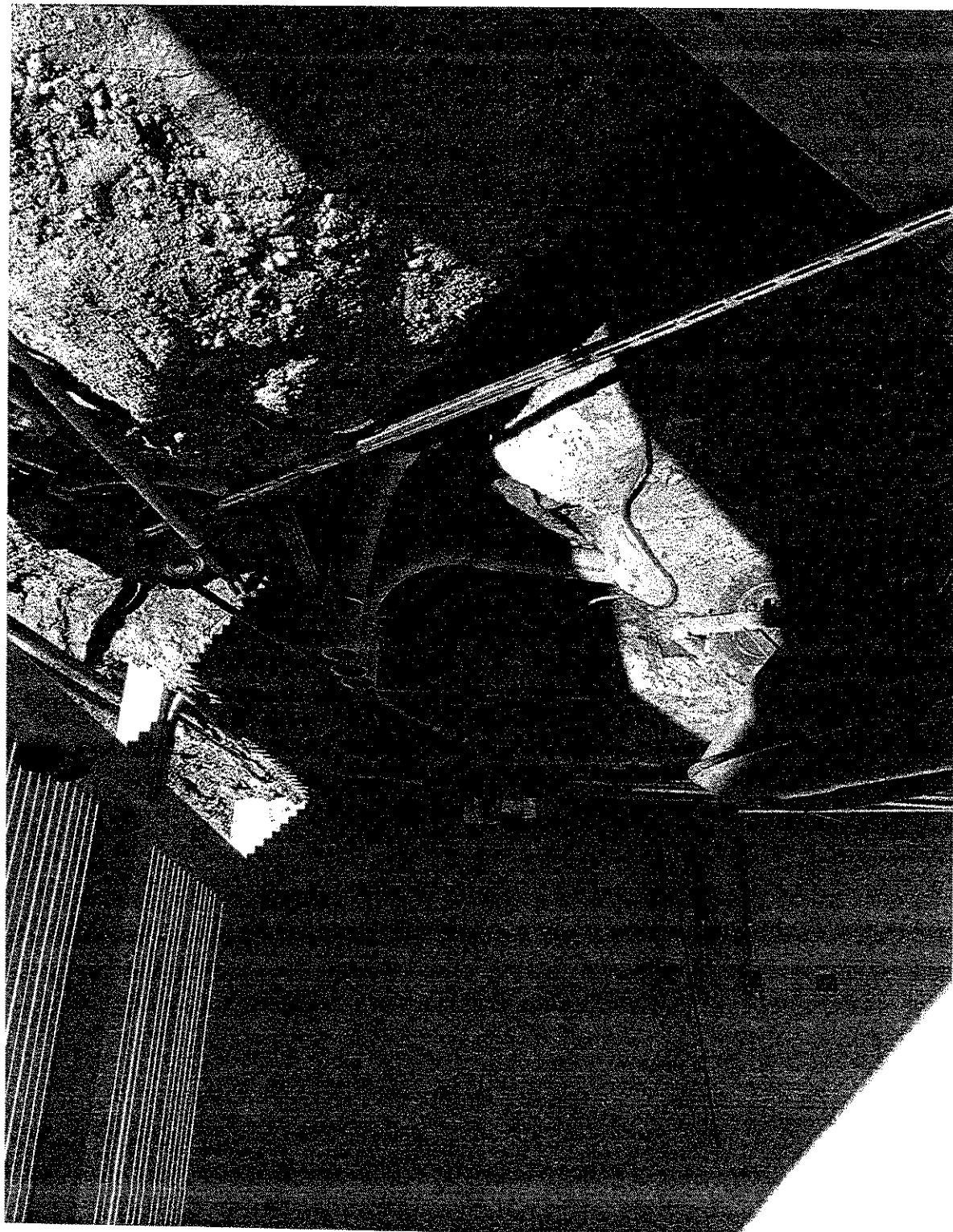
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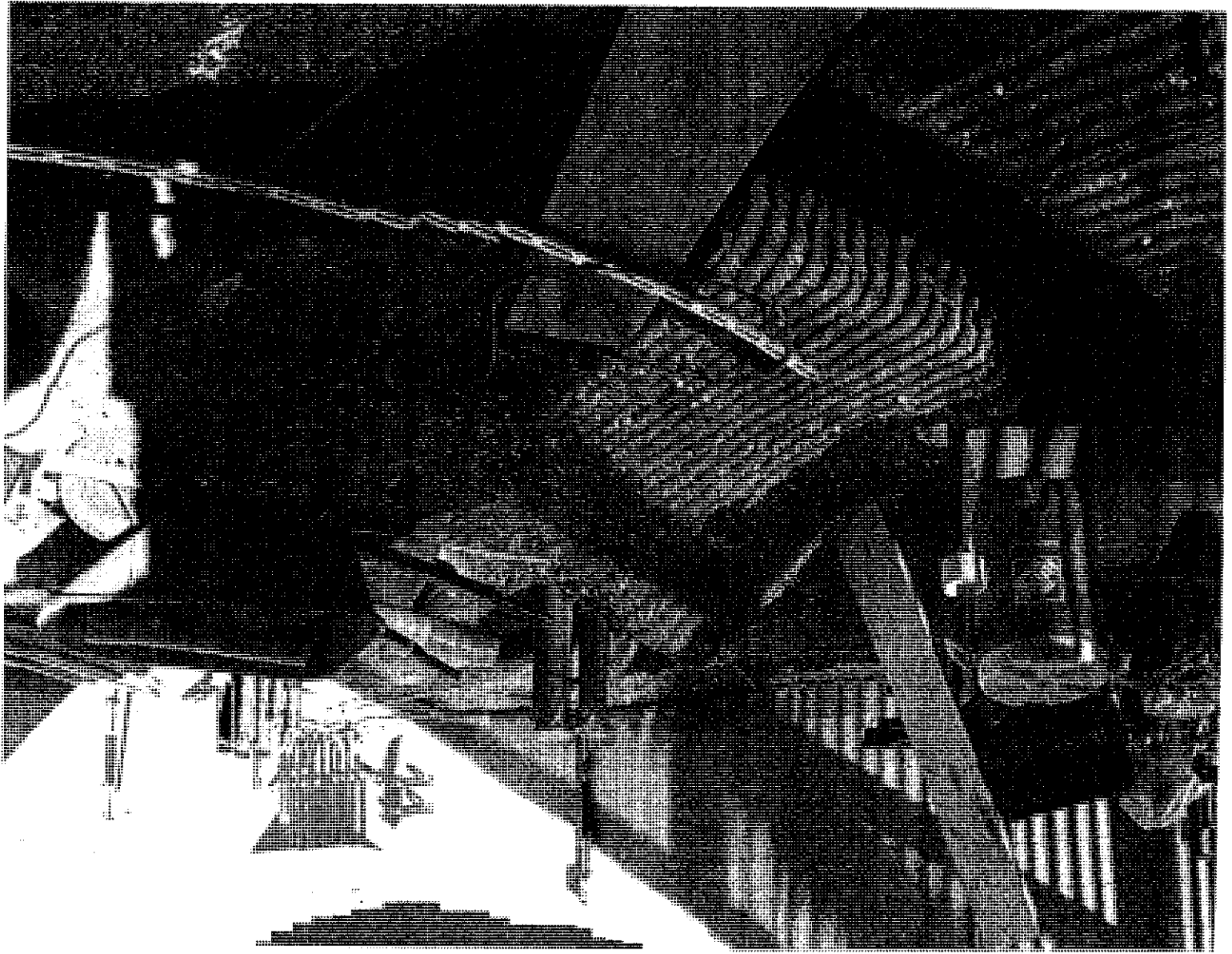
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01 64 10 GENERATOR MODIFICATION AND SET REV. DEC. 01.04.10		DESIGNED BY: J. ZOU DRAWN BY: BLOKOWSKI CHECKED BY: J. CALDERWOOD APPROVED BY: J. ZOU DATE: 01.04.10	 801 S. GARDEN AVENUE Suite 300 Los Angeles, CA 90017-4531	 APPROVED:	TRANSIT CENTER EXTERIOR SIGNAGE DETAILS	CONTRACT NO. IFB 12-1001752 DRAWING NO. AD-109 REVISION: 01 SCALE:









Attachment B
REGULATORY REQUIREMENT
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REGULATORY REQUIREMENTS

*** Marks Required Subcontract Provisions that must flow down to all subcontracts as defined in the Article entitled SUBCONTRACTORS AND SUPPLIERS herein.**

Required Clauses for All FTA-Assisted Third-Party Contracts and Subcontracts

RR-01

NO FEDERAL OBLIGATION TO THIRD PARTIES *

In connection with the Project, the Recipient agrees that, absent the Federal Government's express written consent, the Federal Government shall not be subject to any obligations or liabilities to any subrecipient, lessee, third party contractor, or other participant at any tier of the Project, or other person or entity that is not a party to the Grant Agreement or Cooperative Agreement for the Project. Notwithstanding that the Federal Government may have concurred in or approved any solicitation, subagreement, lease, third party contract, or arrangement at any tier, the Federal Government has no obligations or liabilities to any entity other than the Recipient, including any subrecipient, lessee, third party contractor, or other participant at any tier of the Project.

RR-02

FALSE OR FRAUDULENT STATEMENTS OR CLAIMS – CIVIL AND CRIMINAL FRAUD *

A. Civil Fraud.

The Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 et seq., and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to the Recipient's activities in connection with the Project. By executing the Grant Agreement or Cooperative Agreement for the Project, the Recipient certifies or affirms the truthfulness and accuracy of each statement it has made, it makes, or it may make in connection with the Project. In addition to other penalties that may apply, the Recipient also acknowledges that if it makes a false, fictitious, or fraudulent claim, statement, submission, certification, assurance, or representation to the Federal Government, the Federal Government reserves the right to impose on the Recipient the penalties of the Program Fraud Civil Remedies Act of 1986, as amended, to the extent the Federal Government deems appropriate.

B. Criminal Fraud.

If the Recipient makes a false, fictitious, or fraudulent claim, statement, submission, certification, assurance, or representation to the Federal Government or includes a false, fictitious, or fraudulent statement or representation in any agreement with the Federal Government in connection with a Project authorized under 49 U.S.C. chapter 53 or any other Federal law, the Federal Government reserves the right to impose on the Recipient

the penalties of 49 U.S.C. § 5323(l), 18 U.S.C. § 1001, or other applicable Federal law to the extent the Federal Government deems appropriate.

- C. Contractor shall include this Article in each subcontract financed in whole or in part with Federal assistance provided by FTA. Contractor shall not modify the Article, except to identify the Subcontractor who will be subject to the provisions.

RR-03

ACCESS TO THIRD PARTY CONTRACT RECORDS *

- A. Access to Third Party Contract Records.

The Recipient agrees to require, and assures that its subrecipients require, their third party contractors and third party subcontractors at each tier to provide to the U.S. Secretary of Transportation and the Comptroller General of the United States or their duly authorized representatives, access to all third party contract records as required by 49 U.S.C. § 5325(g). The Recipient further agrees to require, and assures that its subrecipients require, their third party contractors and third party subcontractors, at each tier, to provide sufficient access to third party procurement records as needed for compliance with Federal laws and regulations or to assure proper Project management as determined by FTA.

Contractor agrees to provide Omnitrans, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this Contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 C. F. R. 633.17 to provide the FTA Administrator or the FTA's authorized representatives, including any FTA Project Management Oversight Contractor, access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a) 1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.

- B. If this Contract is for a capital project or improvement (defined at 49 U.S.C. 5302(a) 1) and was entered in to through other than competitive bidding, the Contractor shall make records related to this Contract available to Omnitrans, the Secretary of Transportation and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.
- C. Contractor shall maintain all books, records, accounts and reports required under this Contract for a period of not less than three years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of claims arising from the performance of this Contract, in which case Contractor agrees to maintain same until Omnitrans, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto.

RR-04
FEDERAL FUNDING, INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS, AND FEDERAL CHANGES

- A. This Contract includes, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the Contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, dated November 1, 2008 and revised March 18, 2013 (including any changes), and are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Contract. Contractor shall not perform any act, fail to perform any act, or refuse to comply with any Omnitrans requests which would cause Omnitrans to be in violation of the FTA terms and conditions.
- B. Federal Transit Administration of the US Department of Transportation and all laws, regulations, guidelines, and provisions of the financial assistance agreement apply to this Contract and are incorporated by reference as if fully set forth herein.
- C. Contractor shall at all times comply with all applicable federal laws and regulations, including without limitation FTA regulations, policies, procedures and directives, including those listed directly or by reference in Applicable Grant Agreements between Omnitrans and FTA, as they may be amended or promulgated from time to time during the term of this Contract collectively "Federal Requirements". These Federal Requirements may change and the changed Federal Requirements will apply to this Contract as required unless the Federal Government determines otherwise. Contractor's failure to so comply with the Federal Requirements shall constitute a material breach of this Contract.

RR-05
CIVIL RIGHTS REQUIREMENTS (TITLE VI, ADA, EEO (EXCEPT SPECIAL DOL CONSTRUCTION CLAUSE *

- A. Nondiscrimination - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, Contractor shall not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, Contractor shall comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.
- B. Equal Employment Opportunity
 - (a) Race, Color, Creed, National Origin, Sex - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, Contractor shall comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of

Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 et seq. , (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect activities undertaken in the course of the Contract. Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, Contractor shall comply with any implementing requirements FTA may issue.

- (b) Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § 623 and Federal transit law at 49 U.S.C. § 5332, Contractor shall refrain from discrimination against present and prospective employees for reason of age. In addition, Contractor shall comply with any implementing requirements FTA may issue.
- (c) Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, Contractor shall comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, Contractor shall comply with any implementing requirements FTA may issue.
- (d) Contractor shall include these requirements in each subcontract, modified only if necessary to identify parties, as required by Federal regulations.

RR-06

DISADVANTAGED BUSINESS ENTERPRISE (DBE) 49 CFR Part 26

Disadvantaged Business Enterprises

- A. This Contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, *Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs*. The agency's overall goal for DBE participation is 1%.
- B. Contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this DOT-assisted Contract. Failure by Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as Omnitrans deems

appropriate. Each subcontract Contractor signs with a subcontractor must include the assurance in this paragraph (*see* 49 CFR 26.13(b)).

- C. Bidders are required to document sufficient DBE participation to meet these goals or, alternatively, document adequate good faith efforts to do so, as provided for in 49 CFR 26.53. Award of this contract is conditioned on submission of the following concurrent with and accompanying sealed bid concurrent with and accompanying an initial proposal prior to award:
1. The names and addresses of DBE firms that will participate in this contract;
 2. A description of the work each DBE will perform;
 3. The dollar amount of the participation of each DBE firm participating;
 4. Written documentation of the bidder's commitment to use a DBE subcontractor whose participation it submits to meet the contract goal;
 5. Written confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment; and
 6. If the contract goal is not met, evidence of good faith efforts to do so.

Bidders must present the information required above as a matter of responsiveness with initial proposals prior to contract award] (*see* 49 CFR 26.53(3)).

The successful bidder will be required to report its DBE participation obtained through race-neutral means throughout the period of performance.

- D. Contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 7 days after the contractor's receipt of payment for that work from the Omnitrans. In addition, Contractor is required to return any retainage payments to those subcontractors within 30 days after the subcontractor's work related to his contract is satisfactorily completed.
- E. Contractor must promptly notify Omnitrans whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. Contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of Omnitrans.

Required Clauses for Awards Exceeding \$2,000

RR-07

DAVIS-BACON AND COPELAND ANTI-KICKBACK ACTS

Background and Application

The Davis-Bacon and Copeland Acts are codified at 40 USC 3141, *et seq.* and 18 USC 874. The Acts apply to grantee construction contracts and subcontracts that “at least partly are financed by a loan or grant from the Federal Government.” 40 USC 3145(a), 29 CFR 5.2(h), 49 CFR 18.36(i) (5). The Acts apply to any construction contract over \$2,000. 40 USC 3142(a), 29 CFR 5.5(a). ‘Construction,’ for purposes of the Acts, includes “actual construction, alteration and/or repair, including painting and decorating.” 29 CFR 5.5(a). The requirements of both Acts are incorporated into a single clause (*see* 29 CFR 3.11) enumerated at 29 CFR 5.5(a) and reproduced below.

The clause language is drawn directly from 29 CFR 5.5(a) and any deviation from the model clause below should be coordinated with counsel to ensure the Acts’ requirements are satisfied.

Clause Language

Davis-Bacon and Copeland Anti-Kickback Acts

(1) **Minimum wages** - (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional

classifications and wage rates conformed under paragraph (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) Except with respect to helpers as defined as 29 CFR 5.2(n)(4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) With respect to helpers as defined in 29 CFR 5.2(n)(4), such a classification prevails in the area in which the work is performed.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(v)(A) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a) (1) (v) (B) or (C) of this section, shall be paid to all workers performing work in the Classification under this contract from the first day on which work is performed in the classification.

(2) **Withholding** - Omnitrans shall upon its own action or upon written request of an authorized

representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, Omnitrans may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records - (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b) (2) (B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Omnitrans for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under section 5.5(a) (3) (i) of Regulations, 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5 and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) **Apprentices and trainees** - (i) Apprentices - Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification

of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractors registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees - Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity - The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) **Compliance with Copeland Act requirements** - The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) **Subcontracts** - The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) **Contract termination: debarment** - A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) **Compliance with Davis-Bacon and Related Act requirements** - All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) **Disputes concerning labor standards** - Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) **Certification of eligibility** - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

RR-08

SEISMIC SAFETY REQUIREMENTS 42 U.S.C. 7701 et seq. 49 CFR Part 41

Applicability to Contracts

The Seismic Safety requirements apply only to contracts for the construction of new buildings or additions to existing buildings.

Flow Down

The Seismic Safety requirements flow down from FTA recipients and subrecipients to first tier contractors to assure compliance, with the applicable building standards for Seismic Safety, including the work performed by all subcontractors.

Model Clauses/Language

The regulations do not provide suggested language for third-party contract clauses. The following language has been developed by FTA.

Seismic Safety - The contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations 49 CFR Part 41 and will certify to compliance to the extent required by the regulation. The contractor also agrees to ensure that all work performed under this contract including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the project.

Required Clauses for Awards Exceeding \$10,000

RR-09

TERMINATION 49 U.S.C. Part 18 FTA Circular 4220.1F

Applicability to Contracts

All contracts (with the exception of contracts with nonprofit organizations and institutions of higher education,) in excess of \$10,000 shall contain suitable provisions for termination by the grantee including the manner by which it will be effected and the basis for settlement. (For contracts with nonprofit organizations and institutions of higher education the threshold is \$100,000.) In addition, such contracts shall describe conditions under which the contract may be terminated for default as well as conditions where the contract may be terminated because of circumstances beyond the control of the contractor.

Flow Down

The termination requirements flow down to all contracts in excess of \$10,000, with the exception of contracts with nonprofit organizations and institutions of higher learning.

- a. **Termination for Convenience (General Provision)** Omnitrans may terminate this contract, in whole or in part, at any time by written notice to the Contractor when it is in the Government's best interest. The Contractor shall be paid its costs, including contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to Omnitrans to be paid the Contractor. If the Contractor has any property in its possession belonging to the Omnitrans, the Contractor will account for the same, and dispose of it in the manner the Omnitrans directs.
- b. **Opportunity to Cure (General Provision)** Omnitrans in its sole discretion may, in the case of a termination for breach or default, allow the Contractor an appropriately short period of time in which to cure the defect. In such case, the notice of termination will state the time period in which cure is permitted and other appropriate conditions
- If Contractor fails to remedy to Omnitrans' satisfaction the breach or default of any of the terms, covenants, or conditions of this Contract within ten (10) days after receipt by Contractor of written notice from Omnitrans setting forth the nature of said breach or default, Omnitrans shall have the right to terminate the Contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude Omnitrans from also pursuing all available remedies against Contractor and its sureties for said breach or default.
- c. **Waiver of Remedies for any Breach** In the event that Omnitrans elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this Contract, such waiver by Omnitrans shall not limit Omnitrans remedies for any succeeding breach of that or of any other term, covenant, or condition of this Contract.
- d. **Termination for Default (Construction)** If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract or any extension or fails to complete the work within this time, or if the Contractor fails to comply with any other provisions of this contract, Omnitrans may terminate this contract for default. Omnitrans shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. In this event, Omnitrans may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to Omnitrans resulting from the Contractor's refusal or failure to complete the work within specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Omnitrans in completing the work.

The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause if-

1. The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include: acts of God, acts of the Recipient, acts of another Contractor in the performance of a contract with the Recipient, epidemics, quarantine restrictions, strikes, freight embargoes; and
2. The contractor, within [10] days from the beginning of any delay, notifies Omnitrans in writing of the causes of delay. If in the judgment of Omnitrans, the delay is excusable, the time for completing the work shall be extended. The judgment of Omnitrans shall be final and conclusive on the parties, but subject to appeal under the Disputes clauses.

If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of Omnitrans.

Required Clauses for Awards Exceeding \$25,000

RR-010

SUSPENSION AND DEBARMENT*

- A. This Contract is a covered transaction for purposes of 49 CFR Part 29. As such, Contractor shall verify that none of the Contractor, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

Contractor shall comply with 49 CFR 29, Subpart C and shall include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into.

- B. By entering into this Contract, Contractor certifies that it shall comply with the requirements of 49 CFR 29, Subpart C throughout the period of this Contract. This certification is a material representation of fact relied upon by Omnitrans. If it is later determined that Contractor knowingly rendered an erroneous certification, in addition to remedies available to Omnitrans, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

Awards Exceeding \$100,000 by Statute

RR-011

COMPLIANCE WITH FEDERAL LOBBYING POLICY *

- A. The Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352, requires that Contractors who apply or bid for an award of \$100,000 or more shall file the certification required by 49 CFR Part 20, "New Restrictions on Lobbying," attached hereto as the certification entitled, "Certification of Compliance with Federal Lobbying Requirements." As set forth in the certifications, each tier of subcontractors shall certify to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures shall be forwarded from tier to tier up to Omnitrans.

RR-012

CLEAN WATER AND CLEAN AIR REQUIREMENTS*

A. CLEAN WATER REQUIREMENTS

Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq., and all applicable clean water standards of the State of California and any state or local agency having jurisdiction. Contractor shall report each violation to Omnitrans. Omnitrans will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office, and all other agencies having jurisdiction.

B. CLEAN AIR

Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. and all applicable Clean Air Standards of the State of California or any state or local agency having jurisdiction. Contractor shall report each violation to Omnitrans. Omnitrans will, in turn, report each violation as required to FTA, the appropriate EPA Regional Office and all other agencies having jurisdiction.

- C. Contractor shall include this Article in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

RR-013
NON-CONSTRUCTION ACTIVITIES

Activities Not Involving Construction. The Recipient agrees to comply, and assures the compliance of each subrecipient, lessee, third party contractor, and other participant at any tier of the Project, with the employee protection requirements for nonconstruction employees of the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. §§ 3701 *et seq.*, in particular with the wage and hour requirements of section 102 of that Act at 40 U.S.C. § 3702, and with implementing U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Nonconstruction Contracts Subject to the Contract Work Hours and Safety Standards Act)," 29 C.F.R. Part 5.

Required Clauses for Awards Exceeding the Simplified Acquisition Threshold (\$150,000)

RR-014
BUY AMERICA *

- A. Contractor shall comply with 49 U.S.C. 5323(j) and 49 CFR Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. 661.7, and include final assembly in the United States for 15 passenger vans and 15 passenger wagons produced by Chrysler Corporation, and microcomputer equipment and software. Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11. Rolling stock must be assembled in the United States and have a 60 percent domestic content.

Omnitrans may investigate Contractor's, any Subcontractor's, and any Supplier's compliance with this Article. If an investigation is initiated, Contractor, Subcontractor, or Supplier shall document its compliance, in accordance with 49 CFR 661.15, and cooperate with the investigation. Contractor shall incorporate the Buy America conditions set forth in this Article in every subcontract or purchase order and shall enforce such conditions.

- B. FTA requires a Buy America certification to be submitted with the proposal, or the proposal shall be considered non-responsive.

RR-015
BREACHES AND DISPUTE RESOLUTION 49 CFR Part 18 FTA Circular 4220.1F

Applicability to Contracts

All contracts in excess of \$100,000 shall contain provisions or conditions which will allow for administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as may be appropriate. This may include provisions for bonding, penalties for late or inadequate performance, retained earnings, liquidated damages or other appropriate measures.

Flow Down

The Breaches and Dispute Resolutions requirements flow down to all tiers.

Disputes - Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the Omnitrans. This decision shall be final and conclusive unless within ten (10) days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to Omnitrans Construction Manager. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of Omnitrans Project Manager shall be binding upon the Contractor and the Contractor shall abide by the decision.

Performance During Dispute - Unless otherwise directed by Omnitrans, Contractor shall continue performance under this Contract while matters in dispute are being resolved.

Claims for Damages - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefore shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between Omnitrans and the Contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which Omnitrans is located.

Rights and Remedies - The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by Omnitrans, or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

Transport of Property or Persons

RR-016

CARGO PREFERENCE*

A. Applicability

The following Article applies to federally funded contracts involving equipment, materials, or commodities which may be transported by ocean vessels

B. USE OF UNITED STATES FLAG VESSELS

Contractor shall use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this Contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels.

Contractor shall furnish within 20 working days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to Omnitrans (through Contractor in the case of a subcontractor's bill-of-lading.)

Contractor shall include these requirements in all subcontracts issued pursuant to this Contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

RR-017

FLY AMERICA

A. Applicability

This Article applies to federally funded contracts if the contract or subcontracts may involve the international transportation of goods, equipment, or personnel by air.

- B. Contractor agrees to comply with 49 U.S.C. 40118 (the "Fly America" Act) in accordance with the General Services Administration's regulations at 41 CFR Part 301-10, which provide that recipients and sub recipients of Federal funds and their contractors are required to use U.S. Flag air carriers for U.S Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not

available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. Contractor agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

CONSTRUCTION ACTIVITIES

RR-018

DAVIS-BACON AND COPELAND ANTI-KICKBACK ACTS

Background and Application

The Davis-Bacon and Copeland Acts are codified at 40 USC 3141, *et seq.* and 18 USC 874. The Acts apply to grantee construction contracts and subcontracts that “at least partly are financed by a loan or grant from the Federal Government.” 40 USC 3145(a), 29 CFR 5.2(h), 49 CFR 18.36(i) (5). The Acts apply to any construction contract over \$2,000. 40 USC 3142(a), 29 CFR 5.5(a). ‘Construction,’ for purposes of the Acts, includes “actual construction, alteration and/or repair, including painting and decorating.” 29 CFR 5.5(a). The requirements of both Acts are incorporated into a single clause (*see* 29 CFR 3.11) enumerated at 29 CFR 5.5(a) and reproduced below.

The clause language is drawn directly from 29 CFR 5.5(a) and any deviation from the model clause below should be coordinated with counsel to ensure the Acts’ requirements are satisfied.

Clause Language

Davis-Bacon and Copeland Anti-Kickback Acts

(1) **Minimum wages** - (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics

shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) Except with respect to helpers as defined as 29 CFR 5.2(n)(4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and
(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) With respect to helpers as defined in 29 CFR 5.2(n)(4), such a classification prevails in the area in which the work is performed.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification

under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(v)(A) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a) (1) (v) (B) or (C) of this section, shall be paid to all workers performing work in the Classification under this contract from the first day on which work is performed in the classification.

(2) **Withholding** - Omnitrans shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, Omnitrans may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) **Payrolls and basic records** - (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b) (2) (B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Omnitrans for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under section 5.5(a) (3) (i) of Regulations, 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S.

Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5 and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) **Apprentices and trainees** - (i) Apprentices - Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the

Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractors registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees - Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be

permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity - The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) **Compliance with Copeland Act requirements** - The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) **Subcontracts** - The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) **Contract termination: debarment** - A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) **Compliance with Davis-Bacon and Related Act requirements** - All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) **Disputes concerning labor standards** - Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) **Certification of eligibility** - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

RR-019
CONTRACT WORK HOURS AND SAFETY STANDARDS ACT *

A. Applicability

This Article applies to federally funded construction contracts over \$2,000 (including ferry vessels), rolling stock purchases over \$2,500 and to operations/management contracts over \$2,500 (except transportation services)

B. Pursuant to the Labor Standards Provisions Applicable to Non-construction Contracts subject to the Federal Contract Work Hours and Safety Standards Act, 40 U.S.C.A. § 327 through 332 as implemented by U.S. Department of Labor regulations, 29 CFR 5.5 (b) and (c) Contractor and Subcontractor's contracting for any part of the Contract work shall comply with the following:

1. **Overtime requirements** – Neither Contractor nor any Subcontractor contracting for any part of the Contract work that requires or involves the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
2. **Violation; liability for unpaid wages; liquidated damages** – In the event of any violation of the Article set forth in paragraph (1) of this Article Contractor and any Subcontractor responsible therefore shall be liable for the unpaid wages. In addition, Contractor and Subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this Article, in the sum of ten dollars (\$10) for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this Article.
3. **Withholding for unpaid wages and liquidated damages** – Omnitrans shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any monies payable on account of work performed by Contractor or Subcontractor under the Contract or any other Federal contract with Contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by Contractor, such sums as may be determined to be necessary to satisfy any liabilities of Contractor or Subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this Article.

4. **Subcontracts** – Contractor or Subcontractor shall insert this Article in any Subcontracts and also an Article requiring the Subcontractors to include this Article in any lower tier Subcontracts. Contractor shall be responsible for compliance by any Subcontractor or lower tier Subcontractor with this Article.
5. **Payrolls and basic records** – The records to be maintained hereinabove shall be made available by Contractor or Subcontractor for inspection, copying, or transcription by Omnitrans and U.S. Dept. of Labor. Contractor and Subcontractor shall maintain payrolls and basic records during the course of the work and shall preserve them for a period of three (3) years from the completion of the Contract for all laborers and mechanics, including guards and watchmen, working on the Contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made and actual wages paid.

RR-020

BONDING REQUIREMENTS

Applicability to Contracts

For those construction or facility improvement contracts or subcontracts exceeding \$100,000, FTA may accept the bonding policy and requirements of the recipient, provided that they meet the minimum requirements for construction contracts as follows:

- A. A bid guarantee from each bidder equivalent to five (5) percent of the bid price. The "bid guarantees" shall consist of a firm commitment and may be in any of the following forms: (a) cash; (b) cashier's check payment to Omnitrans; (c) a certified check payable to the city; or (d) a bidder's bond executed by an admitted surety insurer. Such as a bid bond, certifies check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.
- B. A performance bond on the part of the Contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.
- C. A payment bond on the part of the Contractor for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment, as required by law, of all persons supplying labor and material in the execution of the work provided for in the contract.

RR-021

SEISMIC SAFETY REQUIREMENTS 42 U.S.C. 7701 et seq. 49 CFR Part 41

Applicability to Contracts

The Seismic Safety requirements apply only to contracts for the construction of new buildings or additions to existing buildings.

Flow Down

The Seismic Safety requirements flow down from FTA recipients and subrecipients to first tier contractors to assure compliance, with the applicable building standards for Seismic Safety, including the work performed by all subcontractors.

Model Clauses/Language

The regulations do not provide suggested language for third-party contract clauses. The following language has been developed by FTA.

Seismic Safety - The contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations 49 CFR Part 41 and will certify to compliance to the extent required by the regulation. The contractor also agrees to ensure that all work performed under this contract including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the project.

NON-CONSTRUCTION ACTIVITIES

Activities Not Involving Construction. The Recipient agrees to comply, and assures the compliance of each subrecipient, lessee, third party contractor, and other participant at any tier of the Project, with the employee protection requirements for nonconstruction employees of the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. §§ 3701 *et seq.*, in particular with the wage and hour requirements of section 102 of that Act at 40 U.S.C. § 3702, and with implementing U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Nonconstruction Contracts Subject to the Contract Work Hours and Safety Standards Act)," 29 C.F.R. Part 5.

TRANSIT OPERATIONS

RR-022

TRANSIT EMPLOYEE PROTECTIVE ARRANGEMENTS *

A. Applicability

Subject to the limitations in Sections B, C, and D, this Article applies if this Contract involves transit operations to be performed by employees of a Contractor recognized by FTA to be a transit operator, and if FTA has determined that it is financed in whole or in part with Federal assistance.

B. General Transit Employee Protective Requirements

If FTA has determined that this Contract involves transit operations financed in whole or in part with Federal assistance (other than Federal assistance authorized by 49 U.S.C. § 5310(a)(2) or 49 U.S.C. § 5311), and if the U.S. Secretary of Transportation has determined that the employee protective requirements of 49 U.S.C. § 5333(b) are necessary or appropriate for Omnitrans under this Contract, then Contractor shall perform the transit operations work under the Contract in compliance with terms and conditions, (a) determined by the U.S. Secretary of Labor to meet the employee protective requirements of 49 U.S.C. A 5333(b), and U.S. Department of Labor ("U. S. DOL") guidelines at 29 C.F.R. Part 215, and any amendments thereto, and (b) stated in a U. S. DOL letter of certification to FTA, the date of which is set forth in the applicable Grant Agreement or Cooperative Agreement with Omnitrans, and which is incorporated in the Form of Contract as a Contract Document entitled "U. S. DOL Certification".

C. Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5310(a) (2) for Elderly Individuals and Individuals with Disabilities

If FTA has determined that this Contract involves transit operations financed in whole or in part with Federal assistance authorized by 49 U.S.C. § 5310(a)(2), and if the U.S. Secretary of Transportation has determined or determines in the future that the employee protective requirements of 49 U.S.C. § 5333(b) are necessary or appropriate for Omnitrans under the Contract, Contractor shall perform the Work in compliance with the terms and conditions determined, (a) by the U.S. Secretary of Labor to meet the requirements of 49 U.S.C. § 5333(b), U.S. DOL guidelines at 29 C.F.R. Part 215, and any amendments thereto, and (b) stated in the U.S. DOL's letter of certification to FTA, the date of which is set forth in the applicable Grant Agreement or Cooperative Agreement with Omnitrans, and which is incorporated in the Form of Contract as a Contract Document entitled "U. S. DOL Certification".

D. Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5311 in Nonurbanized Areas

If FTA has determined that this Contract involves transit operations financed in whole or in part with Federal assistance authorized by 49 U.S.C. § 5311, Contractor shall comply with the terms and conditions of the Special Warranty for the Nonurbanized Area Program agreed to by the U.S. Secretaries of Transportation and Labor, dated May 31, 1979, and the procedures implemented by U.S. DOL or any revision thereto.

E. Indemnity

Contractor shall defend, indemnify and hold harmless Omnitrans, and its Board Members, employees and agents from and against all liability, claims, demands actions, costs, judgments, penalties, damages, losses and expenses arising out of or in connection with Contractor's failure to comply with or failure to carry out its responsibilities under all applicable provisions of Sections B, C and D of this Article.

CHARTER BUS OPERATION

Charter Service Operations.

The Recipient agrees that neither it nor any public transportation operator performing work in connection with a Project financed under 49 U.S.C. chapter 53 or under 23 U.S.C. §§ 133 or 142, will engage in charter service operations, except as authorized by 49 U.S.C. § 5323(d) and FTA regulations, "Charter Service," 49 C.F.R. Part 604, and any Charter Service regulations or FTA directives that may be issued, except to the extent that FTA determines otherwise in writing. The Charter Service Agreement the Recipient has selected in its latest annual Certifications and Assurances is incorporated by reference and made part of the Grant Agreement or Cooperative Agreement for the Project. If the Recipient has failed to select the Charter Service Agreement in its latest annual Certifications and Assurances to FTA and does conduct charter service operations prohibited by FTA's Charter Service regulations, the Recipient understands and agrees that: (1) the requirements of FTA's Charter Service regulations and any amendments thereto will apply to any charter service it or its subrecipients, lessees, third party contractors, or other participants in the Project provide; (2) the definitions of FTA's Charter Service regulations will apply to the Recipient's charter operations, and (3) a pattern of violations of FTA's Charter Service regulations may require corrective measures and imposition of remedies, including barring the Recipient, subrecipient, lessee, third party contractor, or other participant in the Project operating public transportation under the Project from receiving Federal financial assistance from FTA, or withholding an amount of Federal assistance as set forth in Appendix D to FTA's Charter Service regulations.

SCHOOL BUS OPERATIONS

The Recipient agrees that neither it nor any public transportation operator performing work in connection with a Project financed under 49 U.S.C. chapter 53 or under 23 U.S.C. §§ 133 or 142, will engage in school transportation operations for the transportation of students or school personnel exclusively in competition with private school transportation operators, except as authorized by 49 U.S.C. §§ 5323(f) or (g), as applicable, and FTA regulations, "School Bus Operations," 49 C.F.R. Part 605 to the extent consistent with 49 U.S.C. §§ 5323(f) or (g), in accordance with any School Transportation Operations regulations or FTA directives that may be issued at a later date, except to the extent that FTA determines otherwise in writing. The School Transportation Operations Agreement the Recipient has selected in its latest annual Certifications and Assurances is incorporated by reference and made part of the Grant Agreement or Cooperative Agreement for the Project. If the Recipient has failed to select the School Transportation Operations Agreement in its latest annual Certifications and Assurances to FTA and does conduct school transportation operations prohibited by FTA's School Bus Operations regulations, 49 C.F.R. Part 605, to the extent those regulations are consistent with 49 U.S.C. §§ 5323(f) or (g), the Recipient understands and agrees that: (1) the requirements of FTA's School Bus Operations regulations, 49 C.F.R. Part 605, to the extent consistent with 49 U.S.C. §§ 5323(f) or (g), will apply to any school transportation service it or its subrecipients, lessees, third party contractor, or other participants in the project provide, (2) the definitions of FTA's School Bus Operations regulations will apply to the Recipient's school transportation operations, and (3) if there is a violation of FTA's School Bus Operations regulations, to the extent consistent with 49 U.S.C. §§ 5323(f) or (g), FTA will bar the Recipient, subrecipient, lessee, third party contractor, or other Project participant operating public transportation that has violated FTA's School Bus Operations regulations, 49 C.F.R. Part 605, to the extent consistent with 49 U.S.C. §§ 5323(f) or (g), from receiving Federal transit assistance in an amount FTA considers appropriate.

RR-023

ALCOHOL AND DRUG-FREE WORKPLACE PROGRAM *

A. Applicability

This Article applies to federally funded contracts for transit operations.

B. FTA Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations Regulations

Contractor and its Subcontractors shall comply with the FTA anti-drug and alcohol misuse regulations (49 CFR Part 655) and the U.S. Department of Transportation (DOT) Procedures for Transportation Workplace Drug and Alcohol Testing Programs (49 CFR Part 40) to the full extent that they are, by their terms, applicable to Contractor and its Subcontractors. The regulations apply to all "contractors" that have "covered employees" that perform "safety sensitive functions" as those terms are defined in the regulations.

C. Certificate of Compliance

The **CERTIFICATE OF COMPLIANCE WITH 49 CFR PARTS 655, PREVENTION OF ALCOHOL MISUSE AND PROHIBITED DRUG USE IN TRANSIT**, submitted by Contractor prior to award, is incorporated as part of the Contract Documents.

D. Drug and Alcohol Testing Program

In the event that any part of the Work under this Contract falls within the scope of 49 CFR Part 655, Contractor, and its Subcontractors (as applicable), shall establish and implement a drug and alcohol testing program that complies with 49 CFR Parts 653 and 654, produce any documentation necessary to establish its compliance with Parts 653 and 654, and permit any authorized representative of the United States Department of Transportation or its operating administrations, the State Oversight Agency of California, or Omnitrans, to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 CFR Parts 653 and 654 and review the testing process. Contractor shall annually certify its compliance with Parts 653 and 65. To certify compliance the contractor shall use the "Substance Abuse Certifications" in the "Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements," which is published annually in the Federal Register.

E. Alcohol and Drug Free Workplace Program

In addition to the above, for Work performed on Omnitrans property, Contractor shall provide an Alcohol and Drug-free Workplace Program in accordance with FTA requirements found at <http://transit-safety.fta.dot.gov/DrugAndAlcohol/default.asp>

PLANNING, RESEARCH, DEVELOPMENT AND DEMONSTRATION PROJECTS

PATENT RIGHTS

a. General. If any invention, improvement, or discovery of the Recipient or of any subrecipient, lessee, third party contractor, or other participant at any tier of the Project is conceived or first actually reduced to practice in the course of or under the Project, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the Recipient agrees to notify FTA immediately and provide a detailed report in a format satisfactory to FTA.

b. Federal Rights. The Recipient agrees that its rights and responsibilities, and those of each

subrecipient, lessee, third party contractor, or other participant at any tier of the Project, pertaining to that invention, improvement, or discovery will be determined in accordance with applicable Federal laws and regulations, including any waiver thereof. Absent a determination in writing to the contrary by the Federal Government, the Recipient agrees to transmit to FTA those rights due the Federal Government in any invention, improvement, or discovery resulting from that subagreement, third party contract, third party subcontract, or arrangement, as specified in 35 U.S.C. §§ 200 *et seq.*, and U.S. Department of Commerce regulations, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” 37 C.F.R. Part 401, irrespective of the status of the Recipient, subrecipient, lessee, third party contractor or other participant in the Project (*i.e.*, a large business, small business, State government, State instrumentality, local government, Indian tribe, nonprofit organization, institution of higher education, or individual).

c. License Fees and Royalties. FTA considers income earned from license fees and royalties for patents, patent applications, and inventions produced under the Project to be program income. Except to the extent FTA determines otherwise in writing, as provided in 49 C.F.R. Parts 18 and 19, the Recipient has no obligation to the Federal Government with respect to that program income, apart from compliance with 35 U.S.C. §§ 200 *et seq.*, which applies to patent rights developed under a research project.

RIGHTS IN DATA AND COPYRIGHTS

a. Definition. The term “subject data,” as used in this Section 18 of this Master Agreement means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under the Grant Agreement or Cooperative Agreement for the Project. Examples include, but are not limited to: computer software, standards, specifications, engineering drawings and associated lists, process sheets, manuals, technical reports, catalog item identifications, and related information. “Subject data” do not include financial reports, cost analyses, or other similar information used for Project administration.

b. General. The following restrictions apply to all subject data first produced in the performance of the Grant Agreement or Cooperative Agreement for the Project:

(1) Except for its own internal use, the Recipient may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may the Recipient authorize others to do so, without the prior written consent of the Federal Government, unless the Federal Government has previously released or approved the release of such data to the public.

(2) The restrictions on publication of Paragraph 18.b(1) of this Master Agreement, however, do not apply to a Grant Agreement or Cooperative Agreement with an institution of higher learning.

c. Federal Rights in Data and Copyrights. The Recipient agrees to provide to the Federal Government a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, for Federal Government purposes the subject data described in this Subsection 18.c of this Master Agreement. As used herein, “for Federal Government purposes,” means use only for the direct purposes of the Federal Government. Without the copyright owner’s

consent, the Federal Government may not provide or otherwise extend to other parties the Federal Government's license to:

- (1) Any subject data developed under the Grant Agreement or Cooperative Agreement for the Project, or under a subagreement, lease, third party contract or other arrangement at any tier of the Project, supported with Federal assistance derived from the Grant Agreement or Cooperative Agreement for the Project, whether or not a copyright has been obtained; and
- (2) Any rights of copyright to which a Recipient, subrecipient, lessee, third party contractor, or other participant at any tier of the Project purchases ownership using Federal assistance.

d. Special Federal Rights in Data for Research, Development, Demonstration, and Special Studies Projects. In general, FTA's purpose in providing Federal assistance for a research, development, demonstration, or special studies Project is to increase transportation knowledge, rather than limit the benefits of the Project to Project participants. Therefore, when the Project is completed, the Recipient agrees to provide a Project report that FTA may publish or make available for publication on the Internet. In addition, the Recipient agrees to provide other reports pertaining to the Project that FTA may request. The Recipient agrees to identify clearly any specific confidential, privileged, or proprietary information it submits to FTA. In addition, except to the extent that FTA determines otherwise in writing, the Recipient of Federal assistance to support a research, development, demonstration, or a special studies Project agrees that, in addition to the rights in data and copyrights that it must provide to the Federal Government as set forth in Subsection 18.c of this Master Agreement, FTA may make available to any FTA recipient, subrecipient, third party contractor, third party subcontractor or other participant at any tier of the Project, either FTA's license in the copyright to the subject data or a copy of the subject data. If the Project is not completed for any reason whatsoever, all data developed under the Project shall become subject data as defined in Subsection 18.a of this Master Agreement and shall be delivered as the Federal Government may direct. This Subsection 18.d, however, does not apply to adaptations of automatic data processing equipment or programs for the Recipient's use when the costs thereof are financed with Federal assistance through an FTA capital program.

e. License Fees and Royalties. FTA considers income earned from license fees and royalties for copyrighted material, or trademarks produced under the Project to be program income. Except to the extent FTA determines otherwise in writing, as provided in 49 C.F.R. Parts 18 and 19, the Recipient has no obligation to the Federal Government with respect to that program income, apart from compliance with 35 U.S.C. §§ 200 *et seq.*, which applies to patent rights developed under a research project.

f. Hold Harmless. Except as prohibited or otherwise limited by State law or except to the extent that FTA determines otherwise in writing, upon request by the Federal Government, the Recipient agrees to indemnify, save, and hold harmless the Federal Government and its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by the Recipient of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under the Project. The Recipient shall not be required to indemnify the Federal Government for any such liability caused by the wrongful acts of Federal employees or agents.

g. Restrictions on Access to Patent Rights. Nothing in Section 18 of this Master Agreement pertaining to rights in data shall either imply a license to the Federal Government under any patent or be construed to affect the scope of any license or other right otherwise granted to the Federal Government under any patent.

h. Data Developed Without Federal Funding or Support. In connection with the Project, the Recipient may find it necessary to provide data to FTA developed without any Federal funding or support by the Federal Government. The requirements of Subsections 18.b, 18.c, and 18.d of this Master Agreement do not apply to data developed without Federal funding or support by the Federal Government, even though that data may have been used in connection with the Project. Nevertheless, the Recipient understands and agrees that the Federal Government will not be able to protect data from unauthorized disclosure unless that data is clearly marked "Proprietary" or "Confidential."

i. Requirements to Release Data. To the extent required by U.S. DOT regulations, "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations," at 49 C.F.R. § 19.36(d), or other applicable Federal laws or Federal regulations, the Recipient understands and agrees that the data and information it submits to the Federal Government may be required to be released in accordance with the Freedom of Information Act (or another Federal law or Federal regulation providing access to such records).

SPECIAL NOTIFICATION REQUIREMENTS FOR STATES

SPECIAL NOTIFICATION REQUIREMENTS FOR STATES

To the extent required by Federal law, the State agrees that, in administering any Federal assistance Program or Project supported by the Grant Agreement or Cooperative Agreement, any request for proposals, solicitation, grant application, form, notification, press release, or other publication involving the distribution of FTA assistance for the Program or the Project shall indicate that FTA is the Federal agency that is providing the Federal assistance, the Catalog of Federal Domestic Assistance Number of the program from which the Federal assistance is authorized, as may be applicable, and the amount of Federal assistance FTA provided.

MISCELLANEOUS SPECIAL REQUIREMENTS

RR-024

ENERGY CONSERVATION REQUIREMENTS

A. Applicability

This Article applies to all federally funded contracts.

- B. Contractor shall comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act 42 USC §6321 et seq.

RR-025

RECYCLED PRODUCTS

A. Applicability

This Article applies to federally funded operations/management, construction, or materials & supplies contracts for items designated by the Environmental Protection Agency, when procuring \$10,000 or more per year.

- B. To the extent practicable and economically feasible, a competitive preference shall be given for products and services that conserve natural resources and protect the environment and are energy efficient.
- C. The Contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

NATIONAL INTELLIGENT TRANSPORTATION SYSTEMS ARCHITECTURE AND STANDARDS

To the extent applicable, the Recipient agrees to conform to the National Intelligent Transportation Systems (ITS) Architecture and Standards as required by SAFETEA-LU § 5307(c), 23 U.S.C. § 512 note, and follow the provisions of FTA Notice, "FTA National ITS Architecture Policy on Transit Projects," 66 Fed. Reg. 1455 et seq., January 8, 2001, and any other implementing directives FTA may issue at a later date, except to the extent FTA determines otherwise in writing.

RR-026
ADA ACCESS

A. Applicability

This Article applies to federally funded Architect & Engineer, Operations/Management, Rolling Stock Purchase, and Construction contracts

B. Access Requirements for Persons with Disabilities

Contractor shall comply with:

1. The requirements of 49 U.S.C. § 5301(d), which states the Federal policy that elderly persons and persons with disabilities have the same right as other persons to use mass transportation service and facilities, and that special efforts shall be made in planning and designing those services and facilities to implement that policy;
2. All applicable requirements of section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination on the basis of handicaps;
3. The Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. § 12101 et seq., which requires that accessible facilities and services be made available to persons with disabilities, including any subsequent amendments to that Act;
4. The Architectural Barriers Act of 1968, as amended, 42 U.S.C. §§ 4151 et seq., which requires that buildings and public accommodations be accessible to persons with disabilities, including any subsequent amendments to that Act; and
5. All applicable requirements of the following regulations and any subsequent amendments thereto:
 - (1) U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. Part 37;
 - (2) U.S. DOT regulations, "Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," 49 C.F.R. Part 27;
 - (3) Joint U.S. Architectural and Transportation Barriers Compliance Board (U.S. ATBCB)/U.S. DOT regulations, "Americans With Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. Part 1192 and 49 C.F.R. Part 38;

- (4) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. Part 35;
- (5) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. Part 36;
- (6) U.S. General Services Administration (U.S. GSA) regulations, "Accommodations for the Physically Handicapped," 41 C.F.R. Subpart 101-19;
- (7) U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630;
- (8) U.S. Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for the Hearing and Speech Disabled," 47 C.F.R. Part 64, Subpart F; and
- (9) U.S. ATBCB regulations, "Electronic and Information Technology Accessibility Standards," 36 C.F.R. Part 1194; and
- (10) FTA regulations, "Transportation for Elderly and Handicapped Persons," 49 C.F.R. Part 609;
- (11) Any implementing requirements FTA may issue.

NOT INCLUDED IN UPDATED POLICY

RR-01 ADMINISTRATIVE CODE *

A. Applicability

This Article applies to all contracts.

B. Compliance with §§1090 et. seq. and §§87100 et. seq. of the California Government Code

Contractor shall comply with all applicable provisions of §§1090 et. seq. and §§87100 et. seq. of the California Government Code. Without reducing or affecting its obligation to comply with any and all of said provisions, Contractor specifically covenants:

1. Contractor shall not cause or permit any member, officer, or employee of Omnitrans to have any financial interest in the Contract;
2. Contractor shall not enter into any Subcontract involving services or property with a person or business prohibited from transacting such business with Omnitrans;
3. Contractor warrants and represents that to its knowledge no Board member, officer, or employee of Omnitrans has any interest, whether contractual, non-contractual, financial or otherwise, in this Contract, or in the business or any other contract or transaction of the Contractor or any Subcontractor and that if any such interest comes to Contractor's knowledge at any time, Contractor shall make a full and complete disclosure of all such information in writing to Omnitrans.

C. Campaign Contributions

Neither Contractor nor its Agents shall give or offer to give any campaign contribution to any member of Omnitrans Board of Directors in violation of the California Government Code §§84300 et seq., or of the Administrative Code. Contractor shall submit a Certification of Campaign Contributions with all COs of two hundred thousand dollars (\$200,000) or more.

RR-02

DISCRIMINATION *

A. Applicability

This Article applies to all contracts.

- B.** In connection with the performance of Work provided for under this Contract, Contractor agrees that it will not, on the grounds of race, religious creed, color, national origin, ancestry, physical disability, medical condition, marital status, sex, sexual orientation, or age, discriminate or permit discrimination against any person or group of persons in any manner prohibited by Federal, State or local laws.

RR-03

WHISTLEBLOWER REQUIREMENTS *

A. Applicability

This Article applies to all contracts.

- B.** Contractor shall not adopt any rule, regulation, or policy preventing an employee from disclosing information to a government or law enforcement agency, where the employee believes the information discloses violation or noncompliance with a state or Federal regulation; nor shall Contractor retaliate against an employee for taking such actions as set forth in the t. seq.

RR-04
PUBLIC RECORDS ACT *

A. Applicability

This Article applies to all contracts.

- B. Except as otherwise provided herein, all records, documents, drawings, plans, specifications, and all other information relating to the conduct of Omnitrans business, including all information and documents submitted by Contractor ("Records"), shall become the exclusive property of Omnitrans and shall be deemed public records. Said Records are subject to the provisions of the California Public Records Act (Government Code §6250 et. seq.). Omnitrans use and disclosure of its records are governed by this Act. Omnitrans will use its best efforts to inform the Contractor of any request for any financial records or documents marked "Trade Secret", "Confidential" or "Proprietary" provided by Contractor to Omnitrans. Omnitrans will not advise as to the nature or content of documents entitled to protection from disclosure under the California Public Records Act.
- C. In the event of litigation concerning the disclosure of any Records, Omnitrans sole involvement will be as a stakeholder, retaining the Records until otherwise ordered by a court. The submitting party, at its sole expense and risk, shall be fully responsible for any and all fees for prosecuting or defending any action concerning the Records and shall indemnify and hold Omnitrans harmless from all costs and expenses including attorney's fees in connection with any such action.

RR-05
PRIVACY ACT - 5 U.S.C. 552

Applicability to Contracts

When a grantee maintains files on drug and alcohol enforcement activities for FTA, and those files are organized so that information could be retrieved by personal identifier, the Privacy Act requirements apply to all contracts.

Flow Down

The Federal Privacy Act requirements flow down to each third party contractor and their contracts at every tier.

Model Clause/Language

The text of the following clause has not been mandated by statute or specific regulation, but has been developed by FTA.

Contracts Involving Federal Privacy Act Requirements - The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:

- (1) The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974,

5 U.S.C. § 552a. Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.

- (2) The Contractor also agrees to include these requirements in each subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with Federal assistance provided by FTA.

RR-06

VETERANS PREFERENCE

Veterans Employment. Contractors working on a capital project funded using FTA assistance shall give a hiring preference, to the extent practicable, to veterans (as defined in section 2108 of title 5) who have the requisite skills and abilities to perform the construction work required under the contract. This subsection shall not be understood, construed or enforced in any manner that would require an employer to give preference to any veteran over any equally qualified applicant who is a member of any racial or ethnic minority, female, an individual with a disability, or former employee.

END OF REGULATORY REQUIREMENTS

ATTACHMENT C – PREVAILING WAGES

This project is funded under a financial assistance contract by the U.S. Department of Transportation and is subject to all conditions of the Davis-Bacon Act (40 U.S.C. 276a) and the Labor Code of the State of California commencing in Section 1770 et. seq. It is required that all mechanics and laborers employed or working at the site be paid not less than the current basic hourly rates of pay and fringe benefits. Wage schedules are attached or available on the internet at:

www.dir.ca.gov/DLSR/statistics_research.html

and

www.access.gpo.gov/davisbacon/.

Bidders shall utilize the relevant prevailing wage determinations in effect on the first advertisement date of the Invitation for Bids. In the event there are any differences between the minimum wage rates as determined by the United States Secretary of Labor and those determined by the State of California, the highest rate **MUST BE PAID**.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #LABORER AND RELATED CLASSIFICATIONS

DETERMINATION: SC-23-102-2-2018-1

ISSUE DATE: August 22, 2018

EXPIRATION DATE OF DETERMINATION: July 31, 2019** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

Classification ^a (Journey person)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rates		
		Health and Welfare	Pension	Vacation/ and Holiday ^d	Training	Other Payment	Hours	Total Hourly Rate	Daily ^b 1 1/2X	Saturday ^{bc} 1 1/2X	Sunday and Holiday

CLASSIFICATION GROUPS

Group 1	\$34.24	7.32	8.03	4.84	0.69	0.61	8	55.73	72.850	72.850	89.97
Group 2	34.79	7.32	8.03	4.84	0.69	0.61	8	56.28	73.675	73.675	91.07
Group 3	35.34	7.32	8.03	4.84	0.69	0.61	8	56.83	74.500	74.500	92.17
Group 4	36.89	7.32	8.03	4.84	0.69	0.61	8	58.38	76.825	76.825	95.27
Group 5	37.24	7.32	8.03	4.84	0.69	0.61	8	58.73	77.350	77.350	95.97

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a For classification within each group, see page 14.

^b Any hours worked over 12 hours in a single workday are double (2) time.

^c Saturdays in the same work week may be worked at straight-time if job is shut down during work week due to inclement weather or similar Act of God, or a situation beyond the employers control.

^d Includes an amount per hour worked for supplemental dues

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

CLASSIFICATION GROUPS

GROUP 1

Boring Machine Helper (Outside)
Certified Confined Space Laborer
Cleaning and Handling of Panel Forms
Concrete Screeding for Rough Strike-Off
Concrete, Water Curing
Demolition Laborer, the cleaning of brick if performed by an employee performing any other phase of demolition work, and the cleaning of lumber
Fiberoptic Installation, Blowing, Splicing, and Testing Technician on public right-of-way only
Fire Watcher, Limbers, Brush Loaders, Pilers and Debris Handlers
Flagman
Gas, Oil and/or Water Pipeline Laborer
Laborer, Asphalt-Rubber Material Loader
Laborer, General or Construction
Laborer, General Cleanup
Laborer, Jetting
Laborer, Temporary Water and Air Lines
Plugging, Filling of Shee-Bolt Holes; Dry Packing of Concrete and Patching
Post Hole Digger (Manual)
Railroad Maintenance, Repair Trackman and Road Beds; Streetcar and Railroad Construction Track Laborers
Rigging and Signaling
Scaler
Slip Form Raisers
Tanner and Mortar Man
Tool Crib or Tool House Laborer
Traffic Control by any method
Water Well Driller Helper
Window Cleaner
Wire Mesh Pulling - All Concrete Pouring Operations

GROUP 2

Asphalt Shoveler
Cement Dumper (on 1 yard or larger mixer and handling bulk cement)
Cesspool Digger and Installer
Chucktender
Chute Man, pouring concrete, the handling of the chute from readymix trucks, such as walls, slabs, decks, floors, foundations, footings, curbs, gutters and sidewalks
Concrete Curer-Impervious Membrane and Form Oilcr
Cutting Torch Operator (Demolition)
Fine Grader, Highways and Street Paving, Airport, Runways, and similar type heavy construction
Gas, Oil and/or Water Pipeline Wrapper-Pot Tender and Form Man
Guinea Chaser
Headerboard Man-Asphalt
Installation of all Asphalt Overlay Fabric and Materials used for Reinforcing Asphalt
Laborer, Packing Rod Steel and Pans
Membrane Vapor Barrier Installer
Power Broom Sweepers (small)
Riprap, Stonepaver, placing stone or wet sacked concrete
Roto Scraper and Tiller
Sandblaster (Pot Tender)
Septic Tank Digger and Installer (leadman)

GROUP 2 (continued)

Tank Scaler and Cleaner
Tree Climber, Faller, Chain Saw Operator, Pittsburgh Chipper and similar type
Brush Shredders
Underground Laborer, including Caisson Beller

GROUP 3

Asphalt Installation of all fabrics
Buggymobile Man
Compactor (all types including Tampers, Barko, Wacker)
Concrete Cutting Torch
Concrete Pile Cutter
Driller, Jackhammer, 2 1/2 ft. drill steel or longer
Dri Pak-it Machine
Gas, Oil and/or Water Pipeline Wrapper - 6-inch pipe and over by any method, inside and out
Impact Wrench, Multi-Plate
Kettlemen, Potmen and Men applying asphalt, lay-kold, creosote, lime caustic and similar type materials
Laborer, Fence Erector
Material Hoseman (Walls, Slabs, Floors and Decks)
Operators of Pneumatic, Gas, Electric Tools, Vibrating Machines, Pavement Breakers, Air Blasting, Come-Alongs, and similar mechanical tools not separately classified herein; operation of remote controlled robotic tools in connection with Laborers work
Pipelayer's backup man, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services
Power Post Hole Digger
Rock Slinger
Rotary Scarifier or Multiple Head Concrete Chipping Scarifier
Steel Headerboard Man and Guideline Setter
Trenching Machine, Hand Propelled

GROUP 4

Any Worker Exposed to Raw Sewage
Asphalt Raker, Luteman, Ironer, Asphalt Dumpman, and Asphalt Spreader
Boxes (all types)
Concrete Core Cutter (walls, floors or ceilings), Grinder or Sander
Concrete Saw Man, Cutting Walls or Flat Work, Scoring old or new concrete
Cribber, Shorer, Lagging, Sheeting and Trench Bracing, Hand-Guided Lagging Hammer
Head Rock Slinger
High Scaler (including drilling of same)
Laborer, Asphalt-Rubber Distributor Bootman
Laser Beam in connection with Laborer's work
Oversize Concrete Vibrator Operator, 70 pounds and over
Pipelayer
Prefabricated Manhole Installer
Sandblaster (Nozzleman), Water Blasting, Porta Shot-Blast
Subsurface Imaging Laborer
Traffic Lane Closure, certified

GROUP 5

Blasters Powderman
Driller
Toxic Waste Removal
Welding, certified or otherwise in connection with Laborers' work

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

LOCALITY: SAN BERNARDINO COUNTY

DETERMINATION: SBR-2018-2

- THE PREDETERMINED INCREASE SHOWN IS TO BE ALLOCATED TO WAGES AND/OR EMPLOYER PAYMENTS. PLEASE CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774 WHEN THE PREDETERMINED INCREASE BECOMES DUE TO CONFIRM THE DISTRIBUTION. PLEASE ALSO EXAMINE THE IMPORTANT NOTICES TO SEE IF ANY MODIFICATIONS HAVE BEEN ISSUED, AS THERE MAY BE REDUCTIONS TO PREDETERMINED INCREASES.
- A THE RATIO OF BRICK TENDERS TO BRICKLAYERS SHALL BE AS FOLLOWS: ONE (1) BRICK TENDER TO NO MORE THAN THREE (3) BRICKLAYERS DURING THE INSTALLATION OF BLOCK ON A TYPICAL MASONRY PROJECT.
- B \$1.50 TO THE BASIC HOURLY RATE.
- C \$1.60 TO THE BASIC HOURLY RATE, \$0.40 TO HEALTH & WELFARE, \$0.25 TO PENSION AND \$0.10 TO OTHER PAYMENTS.
- D ZONE A IS DEFINED AS THE PORTION OF THE COUNTY 80 ROAD MILES FROM U.S. POST OFFICE, 455 W. ORANGE SHOW ROAD, SAN BERNARDINO. ZONE B IS DEFINED AS ANY WORK OUTSIDE OF ZONE A (80 MILE FREE ZONE) WHICH REQUIRES AN ADDITIONAL \$12.00 PER HOUR FOR TRAVEL/SUBSISTENCE. PAY SHALL BE ON A SEPARATE CHECK.
- E DICTIONARY OF OCCUPATIONAL TITLES, FOURTH EDITION, 1977, U.S. DEPARTMENT OF LABOR.
- F \$0.25 TO H&W, \$1.10 TO PENSION, \$0.17 TO OTHER AND \$1.25 TO BE ALLOCATED TO WAGES AND/OR FRINGES.
- G \$3.46 DECREASE TO PENSION.
- H AN ADDITIONAL \$0.25 PER HOUR WILL BE ADDED TO THE BASIC HOURLY RATE WHEN PERFORMING PAPERHANGING WORK.
- I \$1.50 TO THE BASIC HOURLY RATE, \$0.05 TO HEALTH & WELFARE, \$1.00 TO PENSION AND \$0.10 TO OTHER.
- J \$1.50 TO THE BASIC HOURLY RATE, \$0.90 TO PENSION AND \$0.25 TO WAGES AND/OR FRINGES.
- K \$1.00 TO THE BASIC HOURLY RATE, \$0.05 TO HEALTH & WELFARE, \$1.00 TO PENSION AND \$0.10 TO OTHER.
- L \$1.00 TO THE BASIC HOURLY RATE, \$0.90 TO PENSION AND \$0.25 TO WAGES AND/OR FRINGES.
- M THE RATIO OF PLASTER TENDERS TO PLASTERERS SHALL BE AS FOLLOWS: THERE SHALL BE A PLASTER TENDER ON THE JOBSITE WHENEVER THERE IS A PLASTERER PERFORMING WORK ON THE JOBSITE, EXCEPT ON SMALL PATCH WORK WHERE ONLY ONE PLASTERER IS PERFORMING WORK. FOR INSIDE BROWN COATINGS THERE SHALL BE 2 PLASTER TENDERS FOR UP TO EVERY 3 PLASTERERS. FOR INSIDE FINISH COATINGS THERE SHALL BE 1 PLASTER TENDER FOR UP TO EVERY 3 PLASTERERS. ON OUTSIDE FINISH AND BROWN COATINGS AND FOR ALL OTHER WORK, THERE SHALL BE 1 PLASTER TENDER FOR UP TO EVERY 2 PLASTERERS.
- N PIPE TRADESMEN SHALL NOT BE PERMITTED ON ANY JOB WITHOUT A JOURNEYMAN.
- O TRADESMEN SHALL ONLY BE USED IF THE FIRST WORKER ON THE JOB IS A LANDSCAPE/IRRIGATION FITTER, SECOND WORKER MUST BE A LANDSCAPE/IRRIGATION FITTER OR APPRENTICE LANDSCAPE/IRRIGATION FITTER. THE 3RD AND 4TH MAY BE A TRADESMAN. THE 5TH MUST BE A LANDSCAPE/IRRIGATION FITTER AND THEREAFTER TRADESMEN WILL BE REFERRED ON A 50-50 BASIS, TO JOURNEYMAN OR APPRENTICE.
- P RATE APPLIES TO REMAINDER OF COUNTY.
- Q \$0.35 TO HEALTH AND WELFARE AND \$0.20 TO PENSION.
- R

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

LOCALITY: SAN BERNARDINO COUNTY
DETERMINATION: SBR-2018-2

- * EFFECTIVE UNTIL SUPERSEDED BY A NEW DETERMINATION ISSUED BY THE DIRECTOR OF INDUSTRIAL RELATIONS. CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774 FOR THE NEW RATES AFTER TEN DAYS AFTER THE EXPIRATION DATE IF NO SUBSEQUENT DETERMINATION IS ISSUED.
- ** THE RATE TO BE PAID FOR WORK PERFORMED AFTER THIS DATE HAS BEEN DETERMINED. IF WORK WILL EXTEND PAST THIS DATE, THE NEW RATE MUST BE PAID AND SHOULD BE INCORPORATED IN CONTRACTS ENTERED INTO NOW. CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT FOR SPECIFIC RATES AT (415) 703-4774.
- # INDICATES AN APPRENTICEABLE CRAFT. THE CURRENT APPRENTICE WAGE RATES ARE AVAILABLE ON THE INTERNET @ [HTTP://WWW.DIR.CA.GOV/OPRL/PWAPPWAGE/PWAPPWAGESTART.ASP](http://WWW.DIR.CA.GOV/OPRL/PWAPPWAGE/PWAPPWAGESTART.ASP). TO OBTAIN ANY APPRENTICE WAGE RATES AS OF JULY 1, 2008 AND PRIOR TO SEPTEMBER 27, 2012, PLEASE CONTACT THE DIVISION OF APPRENTICESHIP STANDARDS OR REFER TO THE DIVISION OF APPRENTICESHIP STANDARDS' WEBSITE AT [HTTP://WWW.DIR.CA.GOV/DAS/DAS.HTML](http://WWW.DIR.CA.GOV/DAS/DAS.HTML).
- & THE BASIC HOURLY RATE AND EMPLOYER PAYMENTS ARE NOT TAKEN FROM A COLLECTIVE BARGAINING AGREEMENT FOR THIS CRAFT OR CLASSIFICATION.
- A INCLUDES AMOUNT WITHHELD FOR DUES CHECK OFF AND CONTRACT COMPLIANCE.
- B INCLUDES AN AMOUNT FOR IMI TRAINING FUND.
- C SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER, OR REASONS BEYOND THE CONTROL OF THE EMPLOYER.
- D RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.
- E THE RATIO OF BRICK TENDERS TO BRICKLAYERS SHALL BE AS FOLLOWS: ONE (1) BRICK TENDER TO NO MORE THAN THREE (3) BRICKLAYERS DURING THE INSTALLATION OF BLOCK ON A TYPICAL MASONRY PROJECT.
- F INCLUDES AN AMOUNT PER HOUR WORKED FOR SUPPLEMENTAL DUES.
- G INCLUDES AMOUNT WITHHELD FOR DUES CHECK OFF.
- H RATE APPLIES TO THE FIRST 12 HOURS WORKED ON SATURDAY, ALL OTHER TIME IS PAID AT DOUBLE TIME. SATURDAY MAY BE WORKED AT THE STRAIGHT-TIME HOURLY RATE FOR THE FIRST 8 HOURS IF INCLEMENT WEATHER FORCES A SYNTHETIC/ARTIFICIAL TURF PROJECT TO SHUT DOWN DURING THE REGULAR WORK WEEK (MONDAY THROUGH FRIDAY).
- I A MATERIAL HANDLER MAY BE UTILIZED IN RATIO OF ONE (1) MATERIAL HANDLER WITH ANY FIVE (5) JOURNEYMEN ON ANY GIVEN PROJECT.
- J RATE APPLIES TO THE FIRST 12 HOURS ON SATURDAY, ALL OTHER TIME IS PAID AT DOUBLE TIME.
- K RATE APPLIES TO FIRST 8 HOURS ONLY. DOUBLE TIME THEREAFTER. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER.
- L IN ADDITION, AN AMOUNT EQUAL TO 3% OF THE BASIC HOURLY RATE IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE NATIONAL EMPLOYEES BENEFIT BOARD.
- M INCLUDES AN AMOUNT FOR THE NATIONAL LABOR-MANAGEMENT COOPERATION FUND AND THE ADMINISTRATIVE MAINTENANCE FUND.
- N RATE APPLIES TO THE FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 12 HOURS WORKED ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.
- O ZONE A IS DEFINED AS THE PORTION OF THE COUNTY 80 ROAD MILES FROM U.S. POST OFFICE, 455 W. ORANGE SHOW ROAD, SAN BERNARDINO. ZONE B IS DEFINED AS ANY WORK OUTSIDE OF ZONE A (80 MILE FREE ZONE) WHICH REQUIRES AN ADDITIONAL \$12.00 PER HOUR FOR TRAVEL/SUBSISTENCE. PAY SHALL BE ON A SEPARATE CHECK.
- P INCLUDES AMOUNT WITHHELD FOR WORKING DUES.
- Q IN ADDITION TO THE AMOUNT SHOWN, WHICH IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER FOR EACH OVERTIME HOUR, \$0.28 IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE LABOR MANAGEMENT COOPERATION COMMITTEE FUND. AMOUNT FOR LABOR MANAGEMENT COOPERATION COMMITTEE FUND IS NOT FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER.
- R RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 8 HOURS ON SATURDAY ONLY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE. ALL OVERTIME WORKED DAILY OR ON SATURDAYS, FOR SERVICE AND REPAIR WORK OTHER THAN NEW WORK, MAY BE PAID AT THE RATE OF TIME AND ONE-HALF.
- S DICTIONARY OF OCCUPATIONAL TITLES, FOURTH EDITION, 1977, U.S. DEPARTMENT OF LABOR.
- T INCLUDES AMOUNT WITHHELD FOR DUES CHECKOFF, WHICH IS FACTORED IN THE OVERTIME RATES. INCLUDES \$2.00 OF VACATION THAT IS NOT FACTORED IN THE OVERTIME RATES.
- U INCLUDES AN AMOUNT PER HOUR WORKED OR PAID TO DISABILITY FUND.
- V INCLUDED IN STRAIGHT-TIME HOURLY RATE WHICH IS NOT FACTORED IN THE OVERTIME RATES.
- W RATE APPLIES TO THE FIRST 2 OVERTIME HOURS MONDAY THROUGH FRIDAY AND THE FIRST 8 HOURS WORKED ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE.
- X INCLUDES AMOUNT WITHHELD FOR ADMINISTRATIVE DUES.
- Y RATE APPLIES TO FIRST TWO DAILY OVERTIME HOURS WORKED; ALL OTHER OVERTIME IS PAID AT THE HOLIDAY OVERTIME HOURLY RATE.
- Z RATE APPLIES TO THE FIRST 8 HOURS WORKED ON A SIXTH OR SEVENTH CONSECUTIVE DAY DURING ANY ONE CALENDAR WEEK UP TO 50 HOURS IN ANY ONE CALENDAR WEEK. ALL HOURS IN EXCESS OF 10 HOURS DAILY OR 50 HOURS WEEKLY ARE PAID AT THE HOLIDAY RATE. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.
- AA RATE APPLIES TO WORK ON HOLIDAYS ONLY; SUNDAYS ARE PAID AT THE SATURDAY OVERTIME HOURLY RATE.
- AB AN ADDITIONAL \$0.25 PER HOUR WILL BE ADDED TO THE BASIC HOURLY RATE WHEN PERFORMING PAPERHANGING WORK.
- AC DOUBLE TIME SHALL BE PAID FOR ALL HOURS WORKED OVER 12 HOURS IN ANY ONE DAY.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

LOCALITY: SAN BERNARDINO COUNTY
DETERMINATION: SBR-2018-2

- ON REPAINT WAGE WORK ANY 8 HOURS IN A 24 HOUR PERIOD MONDAY THROUGH SUNDAY SHALL BE THE WORK DAY AND ANY 40 HOURS IN A WEEK SHALL BE THE WORK WEEK, PROVIDED THAT THE 40 HOURS IS WORKED IN 5 CONSECUTIVE DAYS (LEGAL HOLIDAYS WILL NOT BE COUNTED IN THE 5 CONSECUTIVE DAYS). FOR ALL WORK UNDER THIS CRAFT/CLASSIFICATION DOUBLE TIME SHALL BE PAID FOR ALL HOURS WORKED OVER 12 HOURS IN ANY ONE DAY.
- AD INCLUDES AN AMOUNT PER HOUR WORKED OR PAID FOR SUPPLEMENTAL DUES.
- AE SATURDAY IN THE SAME WORKWEEK MAY BE WORKED AT THE STRAIGHT-TIME HOURLY RATE IF IT IS NOT POSSIBLE TO COMPLETE FORTY HOURS OF WORK MONDAY THROUGH FRIDAY WHEN THE JOB IS SHUT DOWN DUE TO INCLEMENT WEATHER OR SIMILAR ACT OF GOD, OR BEYOND THE CONTRACTOR'S CONTROL.
- AG RATE APPLIES TO THE FIRST 8 HOURS WORKED; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.
- AH THE RATIO OF PLASTER TENDERS TO PLASTERERS SHALL BE AS FOLLOWS: THERE SHALL BE A PLASTER TENDER ON THE JOBSITE WHENEVER THERE IS A PLASTERER PERFORMING WORK ON THE JOBSITE, EXCEPT ON SMALL PATCH WORK WHERE ONLY ONE PLASTERER IS PERFORMING WORK. FOR INSIDE BROWN COATINGS THERE SHALL BE 2 PLASTER TENDERS FOR UP TO EVERY 3 PLASTERERS. FOR INSIDE FINISH COATINGS THERE SHALL BE 1 PLASTER TENDER FOR UP TO EVERY 3 PLASTERERS. ON OUTSIDE FINISH AND BROWN COATINGS AND FOR ALL OTHER WORK, THERE SHALL BE 1 PLASTER TENDER FOR UP TO EVERY 2 PLASTERERS.
- AI ALL WORK PERFORMED AFTER TWELVE (12) HOURS IN A DAY SHALL BE PAID AT THE SUNDAY/HOLIDAY RATE.
- AJ RATE APPLIES TO THE FIRST EIGHT HOURS ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE. SATURDAY WORK MAY BE PAID AT THE STRAIGHT TIME RATE IF THE JOB IS SHUT DOWN DURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER.
- AK INCLUDES AN AMOUNT WITHHELD FOR ADMINISTRATIVE DUES WHICH IS NOT FACTORED INTO OVERTIME AND AN AMOUNT FOR VACATION WHICH IS FACTORED AT 1.5 TIMES FOR ALL OVERTIME.
- AL INCLUDES AMOUNT FOR NATIONAL PENSION AND RETIREE'S X-MAS FUND.
- AM AMOUNT INCLUDED IN BASIC HOURLY RATE AND FACTORED AT 1.5 TIMES FOR ALL OVERTIME.
- AN INCLUDES AN AMOUNT FOR THE P.I.P.E. LABOR MANAGEMENT COOPERATION COMMITTEE AND THE CONTRACTOR EDUCATION & DEVELOPMENT FUND.
- AO SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.
- AP PIPE TRADESMEN SHALL NOT BE PERMITTED ON ANY JOB WITHOUT A JOURNEYMAN.
- AQ INCLUDES AN AMOUNT WITHHELD FOR ADMINISTRATIVE DUES WHICH IS NOT FACTORED IN THE OVERTIME RATES.
- AR SATURDAY MAY BE WORKED AT STRAIGHT-TIME RATE, PROVIDED THAT THE HOURS DO NOT EXCEED 8 HOURS PER DAY OR 40 HOURS PER WEEK.
- AS DOUBLE TIME SHALL BE PAID FOR NEW YEAR'S DAY, EASTER SUNDAY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS.
- AT TRADESMEN SHALL ONLY BE USED IF THE FIRST WORKER ON THE JOB IS A LANDSCAPE/IRRIGATION FITTER, SECOND WORKER MUST BE A LANDSCAPE/IRRIGATION FITTER OR APPRENTICE LANDSCAPE/IRRIGATION FITTER. THE 3RD AND 4TH MAY BE A TRADESMAN. THE 5TH MUST BE A LANDSCAPE/IRRIGATION FITTER AND THEREAFTER TRADESMEN WILL BE REFERRED ON A 50-50 BASIS, TO JOURNEYMAN OR APPRENTICE.
- AU RATE APPLIES TO REMAINDER OF COUNTY.
- AV INCLUDES AN AMOUNT FOR SUPPLEMENTAL PENSION FUND.
- AW APPLIES TO THE CITIES OF ONTARIO AND MONTCLAIR.
- AX INCLUDED IN STRAIGHT-TIME HOURLY RATE.
- AY AMOUNT IS FOR INDUSTRY PROMOTION FUND AND P.I.P.E. FUND.
- AZ RATE APPLIES TO THE FIRST 10 HOURS WORKED ON SATURDAY. ALL OTHER HOURS ARE PAID AT THE SUNDAY/HOLIDAY RATE.
- BA INCLUDE AMOUNTS FOR DUES CHECK OFF AND VACATION/HOLIDAY, WHICH ARE NOT FACTORED INTO OVERTIME.
- BB INCLUDES AN AMOUNT PER HOUR WORKED FOR ANNUITY TRUST FUND.
- BC INCLUDED IN BASIC HOURLY RATE. VACATION IS NOT FACTORED INTO OVERTIME
- BD INCLUDE AMOUNTS FOR ADMINISTRATIVE FUND, COMPLIANCE FUND, INDUSTRY FUND, AND RESEARCH AND EDUCATION TRUST FUND.
- BE PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.
- BF RATE APPLIES FOR THE FIRST 4 OVERTIME HOURS MONDAY THROUGH FRIDAY AND THE FIRST 12 HOURS WORKED ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY/HOLIDAY RATE. SATURDAYS IN THE SAME WORKWEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

LOCALITY: SAN BERNARDINO COUNTY
DETERMINATION: SBR-2018-2

CRAFT (JOURNEY LEVEL)	ISSUE DATE	EXPIRATION DATE	EMPLOYER PAYMENTS						STRAIGHT-TIME		OVERTIME HOURLY RATE		
			BASIC HOURLY RATE	HEALTH AND WELFARE	PENSION	VACATION/HOLIDAY	TRAINING	OTHER PAYMENTS	HOURS	TOTAL HOURLY RATE	DAILY	SATURDAY	SUNDAY AND HOLIDAY
# BRICKLAYER, STONEMASON, MARBLE MASON, CEMENT BLOCKLAYER, POINTER, CAULKER, CLEANER	8/22/2018	04/30/2019**	A 40.390	8.250	6.880	-	B 0.970	0.450	C 8.0	58.720	D 76.920	D 76.920	97.110
# BRICKLAYER:													
MASON FINISHER	8/22/2018	04/30/2019*	A 28.320	8.250	8.020	-	B 0.860	0.450	C 8.0	45.900	D 60.060	D 60.060	74.220
# E BRICK TENDER	8/22/2018	06/30/2019**	32.260	7.320	7.780	F 4.350	0.650	0.440	C 8.0	52.600	68.930	68.930	85.060
# BRICK TENDER:													
FORKLIFT OPERATOR	8/22/2018	06/30/2019**	32.710	7.320	7.780	F 4.350	0.650	0.440	C 8.0	53.250	69.600	69.600	85.960
# CARPET, LINOLEUM,													
RESILIENT TILE LAYER	8/22/2018	12/31/2018**	G 33.850	5.330	6.550	2.050	0.630	0.280	8.0	48.690	65.610	H 65.610	82.540
I MATERIAL HANDLER	2/22/2018	04/30/2018*	G 11.000	5.330	2.390	0.550	0.630	0.180	8.0	20.080	25.580	J 25.580	31.080
# DRYWALL FINISHER													
DRYWALL FINISHER	2/22/2018	09/30/2018**	G 38.580	8.450	6.380	3.070	0.670	0.670	8.0	57.820	77.110	K 77.110	96.400
# ELECTRICIAN:													
COMM & SYSTEM INSTALLER	2/22/2018	12/31/2018**	32.490	7.870	L 5.000	-	0.650	M 0.300	8.0	47.280	N 64.020	N 64.020	80.750
O INSIDE WIREMAN - ZONE A	8/22/2018	05/26/2019**	P 38.290	10.470	L 13.090	-	0.680	Q 0.540	8.0	64.500	R 84.490	R 84.490	104.480
O CABLE SPLICER - ZONE A	8/22/2018	05/26/2019**	P 39.790	10.470	L 13.090	-	0.680	Q 0.560	8.0	66.060	R 86.840	R 86.840	107.610
O TUNNEL WIREMAN - ZONE A	8/22/2018	05/26/2019**	P 42.120	10.470	L 13.090	-	0.680	Q 0.590	8.0	68.490	R 90.480	R 90.480	112.470
# FIELD SURVEYOR:													
S CHIEF OF PARTY (018.167-010)	2/22/2018	09/30/2018**	48.860	11.450	9.650	F 4.620	1.100	0.150	8.0	75.830	N 100.260	N 100.260	124.690
S INSTRUMENTMAN (018.167-034)	2/22/2018	09/30/2018**	46.360	11.450	9.650	F 4.450	1.100	0.150	8.0	73.160	N 96.340	N 96.340	119.520
S CHAINMAN/RODMAN (809.587-010)	2/22/2018	09/30/2018**	45.780	11.450	9.650	F 4.400	1.100	0.150	8.0	72.530	N 95.420	N 95.420	118.310
# GLAZIER	8/22/2018	05/31/2019**	T 44.200	U 7.500	15.310	V -	0.770	0.710	8.0	68.490	W 89.590	W 89.590	110.690
# MARBLE FINISHER	8/22/2018	05/31/2019**	X 32.430	9.250	3.120	-	0.890	0.370	8.0	46.060	Y 62.280	Z 62.280	AA 78.490
# PAINTER													
AB INDUSTRIAL PAINTER	8/22/2018	08/30/2019**	P 32.520	8.850	3.040	2.850	0.700	0.910	8.0	48.870	AC 65.130	AC 65.130	AC 65.130
# PAINTER:													
AB PAINTER, LEAD ABATEMENT	8/22/2018	06/30/2019**	P 31.120	8.850	3.040	2.550	0.500	0.910	8.0	47.070	AC 62.630	AO 62.630	AC 62.630
AB REPAINT PAINTER, LEAD ABATEMENT	8/22/2018	06/30/2019**	P 27.590	8.850	3.040	2.430	0.500	0.910	8.0	43.420	AD 57.220	AD 57.220	AD 57.220
AB INDUSTRIAL REPAINT PAINTER	8/22/2018	06/30/2019**	P 28.940	8.850	3.040	2.710	0.700	0.910	8.0	45.060	AD 59.470	AD 59.470	AD 59.470
# PLASTERER	8/22/2018	08/08/2019**	36.860	9.380	4.840	AE 5.850	0.780	1.040	AF 8.0	58.750	AC 77.180	AO 77.180	95.610
# AH PLASTER TENDER	8/22/2018	08/08/2019**	36.370	7.320	7.430	AE 5.150	1.020	0.960	8.0	58.250	AI 75.430	AJ 76.430	94.620
PLASTER CLEAN-UP LABORER	8/22/2018	08/08/2019**	33.820	7.320	7.430	AE 5.150	1.020	0.960	8.0	55.700	AI 72.610	AJ 72.610	89.520
# PLUMBER:													
PLUMBER, INDUSTRIAL AND GENERAL PIPEFITTER	8/22/2018	08/31/2019**	AK 50.130	8.910	AL 11.750	AM -	2.250	AN 1.260	8.0	74.300	D 98.520	D 98.520	121.110
SEWER AND STORM DRAIN PIPELAYER	8/22/2018	06/31/2019**	AK 37.240	8.800	AL 8.900	AM -	1.990	AN 1.260	8.0	58.190	75.950	AO 75.950	93.110
SEWER AND STORM DRAIN PIPE TRADESMAN	8/22/2018	06/31/2019**	AQ 18.490	8.550	0.380	-	1.110	AN 1.110	8.0	29.640	38.030	AO 38.030	46.430
SERVICE & REPAIR (PLUMBER/HVAC-FITTER)	8/22/2018	06/31/2019**	AK 48.560	8.910	AL 11.440	AM -	1.580	AN 1.260	8.0	71.770	95.210	AR 95.210	AS 117.030
LANDSCAPE/IRRIGATION FITTER	8/22/2018	08/31/2019**	X 33.150	8.910	AL 11.750	AM -	1.640	AN 1.060	AO 8.0	56.510	73.080	73.080	89.310
AT LANDSCAPE/IRRIGATION TRADESMAN	8/22/2018	08/31/2019**	X 14.670	3.000	AL 0.880	-	0.100	AN 0.860	AO 8.0	19.510	26.860	26.860	34.180

**GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1**

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #Cranes, Pile Driver and Hoisting Equipment (Operating Engineer)

DETERMINATION: SC-23-63-2-2018-1B

ISSUE DATE: August 22, 2018

EXPIRATION DATE OF DETERMINATION: June 30, 2019* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Health and Welfare	Employer Payments				Straight – Time		Overtime Hourly Rate		
			Pension (e)	Vacation/ Holiday (a)	Training	Other Payments	Hours	Total Hourly Rate	Daily (c)	Saturday (d)	Sunday/ Holiday
									1 1/2X	1 1/2X	2X
Classification Groups (b)											
Group 1	\$46.65	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$73.69	\$97.015	\$97.015	\$120.34
Group 2	\$47.43	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$74.47	\$98.185	\$98.185	\$121.90
Group 3	\$47.72	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$74.76	\$98.620	\$98.620	\$122.48
Group 4	\$47.86	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$74.90	\$98.830	\$98.830	\$122.76
Group 5	\$48.08	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$75.12	\$99.160	\$99.160	\$123.20
Group 6	\$48.19	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$75.23	\$99.325	\$99.325	\$123.42
Group 7	\$48.31	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$75.35	\$99.505	\$99.505	\$123.66
Group 8	\$48.48	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$75.52	\$99.760	\$99.760	\$124.00
Group 9	\$48.65	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$75.69	\$100.015	\$100.015	\$124.34
Group 10	\$49.65	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$76.69	\$101.515	\$101.515	\$126.34
Group 11	\$50.65	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$77.69	\$103.015	\$103.015	\$128.34
Group 12	\$51.65	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$78.69	\$104.515	\$104.515	\$130.34
Group 13	\$52.65	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$79.69	\$106.015	\$106.015	\$132.34

* # Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount withheld for supplemental dues.

^b For classifications within each group, see page 10B.

^c Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^d Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

^e Includes an amount for Annuity

NOTE: For Special Shift and Multi-Shift, see pages 10A-1 and 10A-2.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Determination: SC-23-63-2-2018-1B; SC-23-63-2-2018-1B1; SC-23-63-2-2018-1B2

CLASSIFICATIONS:

GROUP 1

Engineer Oiler

GROUP 2

Truck Crane Oiler

GROUP 3

A-Frame or Winch Truck Operator

Ross Carrier Operator (Jobsite)

GROUP 4

Bridge-Type Unloader and Turntable Operator

Helicopter Hoist Operator

Snobble Unit (pin-n-go or similar type)

GROUP 5

Hydraulic Boom Truck/Knuckleboom

Stinger Crane (Austin-Western or similar type)

Tugger Hoist Operator (1 drum)

GROUP 6

Bridge Crane Operator

Cretor Crane Operator

Hoist Operator (Chicago Boom and similar type)

Lift Mobile Operator

Lift Slab Machine Operator (Vagtborg and similar types)

Material Hoist and/or Manlift Operator

Polar Gantry Crane Operator

Prentice Self-Loader

Self Climbing Scaffold (or similar type)

Shovel, Dragline, Clamshell Operator (over 3/4 yd and up to 5 cu yds, M.R.C.)

Silent Piler

Tugger Hoist Operator (2 drum)

GROUP 7

Pedestal Crane Operator

Shovel, Dragline, Clamshell Operator (over 5 cu yds, M.R.C.)

Tower Crane Repairman

Tugger Hoist Operator (3 drum)

GROUP 8

Crane Operator (up to and including 25 ton capacity)

Crawler Transporter Operator

Derrick Barge Operator (up to and including 25 ton capacity)

Hoist Operator, Stiff Legs, Guy Derrick or similar type (up to and including 25 ton capacity)

Shovel, Dragline, Clamshell Operator (over 7 cu yds M.R.C.)

GROUP 9

Crane Operator (over 25 tons, up to and including 50 ton M.R.C.)

Derrick Barge Operator (over 25 tons, up to and including 50 ton M.R.C.)

Highline Cableway Operator

Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 25 tons, up to and including 50 ton M.R.C.)

K-Crane

Polar Crane Operator

Self Erecting Tower Crane Operator Maximum Lifting Capacity ten (10) tons.

GROUP 10

ABI/Fundex Machine

Crane Operator (over 50 tons, up to and including 100 ton M.R.C.)

Derrick Barge Operator (over 50 tons, up to and including 100 ton M.R.C.)

Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 50 tons, up to and including 100 ton M.R.C.)

Mobile Tower Crane Operator (over 50 tons, up to and including 100 ton M.R.C.)

Shovel, Dragline, Clamshell Operator (over 10 cu. yds.)

GROUP 11

Crane Operator (over 100 tons, up to and including 200 ton M.R.C.)

Derrick Barge Operator (over 100 tons, up to and including 200 tons M.R.C.)

Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 100 tons, up to and including 200 ton M.R.C.)

Mobile Tower Crane Operator (over 100 tons, up to and including 200 ton M.R.C.)

Tower Crane Operator and Tower Gantry

GROUP 12

Crane Operator (over 200 tons, up to and including 300 tons M.R.C.)

Derrick Barge Operator (over 200 tons, up to and including 300 tons M.R.C.)

Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 200 tons, up to and including 300 ton M.R.C.)

Mobile Tower Crane Operator (over 200 tons, up to and including 300 ton M.R.C.)

GROUP 13

Crane Operator (over 300 tons)

Derrick Barge Operator (over 300 tons)

Helicopter Pilot

Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 300 tons)

Hydraulically Controlled Lift Gantry Operator BCR Lift System (over 300 tons)

Mobile Tower Crane Operator (over 300 tons)

MISCELLANEOUS PROVISIONS:

1. Operators on hoists with three drums shall receive fifteen cents (15¢) per hour additional pay to the regular rate of pay. The additional pay shall be added to the regular rate and become the base rate for the entire shift.
2. All heavy duty repairman and heavy duty combination shall receive fifty cents (50¢) per hour tool allowance in addition to their regular rate of pay and this shall become their base rate of pay.
3. Employees required to suit up and work in a hazardous material environment, shall receive Two Dollars (\$2.00) per hour in addition to their regular rate of pay, and that rate shall become the basic hourly rate of pay.

**GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1**

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #Cranes, Pile Driver and Hoisting Equipment (Operating Engineer, Special Shift)

DETERMINATION: SC-23-63-2-2018-1B1

ISSUE DATE: August 22, 2018

EXPIRATION DATE OF DETERMINATION: June 30, 2019* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Health and Welfare	Employer Payments				Straight – Time		Overtime Hourly Rate		
			Pension (e)	Vacation/ Holiday (a)	Training	Other Payments	Hours	Total Hourly Rate	Daily (c)	Saturday (d)	Sunday/ Holiday
									1 1/2X	1 1/2X	2X
Classification Groups (b)											
Group 1	\$47.15	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$74.19	\$97.765	\$97.765	\$121.34
Group 2	\$47.93	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$74.97	\$98.935	\$98.935	\$122.90
Group 3	\$48.22	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$75.26	\$99.370	\$99.370	\$123.48
Group 4	\$48.36	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$75.40	\$99.580	\$99.580	\$123.76
Group 5	\$48.58	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$75.62	\$99.910	\$99.910	\$124.20
Group 6	\$48.69	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$75.73	\$100.075	\$100.075	\$124.42
Group 7	\$48.81	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$75.85	\$100.255	\$100.255	\$124.66
Group 8	\$48.98	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$76.02	\$100.510	\$100.510	\$125.00
Group 9	\$49.15	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$76.19	\$100.765	\$100.765	\$125.34
Group 10	\$50.15	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$77.19	\$102.265	\$102.265	\$127.34
Group 11	\$51.15	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$78.19	\$103.765	\$103.765	\$129.34
Group 12	\$52.15	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$79.19	\$105.265	\$105.265	\$131.34
Group 13	\$53.15	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$80.19	\$106.765	\$106.765	\$133.34

* # Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount withheld for supplemental dues.

^b For classifications within each group, see page 10B.

^c Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^d Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

^e Includes an amount for Annuity

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #Cranes, Pile Driver and Hoisting Equipment (Operating Engineer, Multi-Shift)

DETERMINATION: SC-23-63-2-2018-1B2

ISSUE DATE: August 22, 2018

EXPIRATION DATE OF DETERMINATION: June 30, 2019* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

CLASSIFICATION (Journeyperson)	Basic Hourly Rate	Health and Welfare	Employer Payments				Straight – Time		Overtime Hourly Rate		
			Pension (f)	Vacation/ Holiday (a)	Training	Other Payments	Hours (e)	Total Hourly Rate	Daily (c)	Saturday (d)	Sunday/ Holiday
									1 1/2X	1 1/2X	2X
Classification Groups (b)											
Group 1	\$47.65	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$74.69	\$98.515	\$98.515	\$122.34
Group 2	\$48.43	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$75.47	\$99.685	\$99.685	\$123.90
Group 3	\$48.72	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$75.76	\$100.120	\$100.120	\$124.48
Group 4	\$48.86	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$75.90	\$100.330	\$100.330	\$124.76
Group 5	\$49.08	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$76.12	\$100.660	\$100.660	\$125.20
Group 6	\$49.19	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$76.23	\$100.825	\$100.825	\$125.42
Group 7	\$49.31	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$76.35	\$101.005	\$101.005	\$125.66
Group 8	\$49.48	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$76.52	\$101.260	\$101.260	\$126.00
Group 9	\$49.65	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$76.69	\$101.515	\$101.515	\$126.34
Group 10	\$50.65	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$77.69	\$103.015	\$103.015	\$128.34
Group 11	\$51.65	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$78.69	\$104.515	\$104.515	\$130.34
Group 12	\$52.65	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$79.69	\$106.015	\$106.015	\$132.34
Group 13	\$53.65	\$11.45	\$10.65	\$3.55	\$1.00	\$0.39	8	\$80.69	\$107.515	\$107.515	\$134.34

* // Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount withheld for supplemental dues.

^b For classifications within each group, see page 10B.

^c Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^d Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

^e The Third Shift shall work 6.5 hours, exclusive of meal period, for which 8 hours straight-time shall be paid at the non-shift rate, Monday through Friday.

^f Includes an amount for Annuity

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PRETAXING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1772 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

LOCALITY: SAN BERNARDINO COUNTY
DETERMINATION: SBR-2018-2

CRAFT (JOURNEY LEVEL)	ISSUE DATE	EXPIRATION DATE	INCREASE 1		INCREASE 2		INCREASE 3		INCREASE 4		INCREASE 5		INCREASE 6		INCREASE 7	
			DATE OF NEXT CHANGE	AMOUNT OF INCREASE	DATE OF NEXT CHANGE	AMOUNT OF INCREASE	DATE OF NEXT CHANGE	AMOUNT OF INCREASE	DATE OF NEXT CHANGE	AMOUNT OF INCREASE	DATE OF NEXT CHANGE	AMOUNT OF INCREASE	DATE OF NEXT CHANGE	AMOUNT OF INCREASE	DATE OF NEXT CHANGE	AMOUNT OF INCREASE
BRICKLAYER, STONEMASON, MARBLE MASON, CEMENT BLOCKLAYER, POINTER, CAULKER, CLEANER	8/22/2018	04/30/2019**	5/1/2019	\$1.88 A	5/1/2020	\$1.88 A										
B BRICK TENDER	8/22/2018	08/30/2019**	7/1/2019	\$1.80 A	7/1/2020	\$1.55 A										
BRICK TENDER:																
FORKLIFT OPERATOR	8/22/2018	08/30/2019**	7/1/2019	\$1.60 A	7/1/2020	\$1.55 A										
CARPET, LINOLEUM, RESILIENT TILE LAYER	8/22/2018	12/31/2018**	1/1/2019	\$1.80 C												
DRYWALL FINISHER																
DRYWALL FINISHER	2/22/2018	09/30/2018**	10/1/2018	\$2.35 D	10/1/2019	\$2.40 A										
ELECTRICIAN:																
COMM & SYSTEM INSTALLER	2/22/2018	12/31/2018**	1/1/2019	\$2.00 A												
E INSIDE WIREMAN - ZONE A	8/22/2018	05/28/2019**	5/27/2019	\$2.00 A												
E CABLE SPICER - ZONE A	8/22/2018	05/28/2019**	5/27/2019	\$2.00 A												
E TUNNEL WIREMAN - ZONE A	8/22/2018	05/28/2019**	5/27/2019	\$2.00 A												
FIELD SURVEYOR:																
F CHIEF OF PARTY (018.167-010)	2/22/2018	09/30/2018**	10/1/2018	\$2.30 A												
F INSTRUMENTMAN (018.167-034)	2/22/2018	09/30/2018**	10/1/2018	\$2.30 A												
F CHAINMAN/RODMAN (889.687-010)	2/22/2018	09/30/2018**	10/1/2018	\$2.30 A												
GLAZIER	8/22/2018	05/31/2019**	6/1/2019	\$2.77 G	1/1/2020	-\$3.46 H										
MARBLE FINISHER	8/22/2018	05/31/2019**	6/1/2019	\$1.85 A												
PAINTER																
I INDUSTRIAL PAINTER	8/22/2018	08/30/2019**	7/1/2019	\$2.65 J	7/1/2020	\$2.65 K										
PAINTER:																
I PAINTER, LEAD ABATEMENT	8/22/2018	05/30/2019**	7/1/2019	\$2.15 L	7/1/2020	\$2.15 M										
REPAINT PAINTER, LEAD ABATEMENT	8/22/2018	05/30/2019**	7/1/2019	\$2.15 L	7/1/2020	\$2.15 M										
I INDUSTRIAL REPAINT PAINTER	8/22/2018	05/30/2019**	7/1/2019	\$2.65 J	7/1/2020	\$2.65 K										
PLASTERER	8/22/2018	08/08/2019**	8/7/2019	\$2.05 A	8/5/2020	\$2.20 A	8/4/2021	\$2.20 A								
N PLASTER TENDER	8/22/2018	08/08/2019**	8/7/2019	\$2.05 A	8/5/2020	\$2.20 A	8/4/2021	\$2.20 A								
PLASTER CLEAN-UP LABORER	8/22/2018	08/08/2019**	8/7/2019	\$2.05 A	8/5/2020	\$2.20 A	8/4/2021	\$2.20 A								
PLUMBER:																
PLUMBER, INDUSTRIAL AND GENERAL PIPEFITTER	8/22/2018	08/31/2019**	9/1/2019	\$2.01 A	9/1/2020	\$2.01 A	9/1/2021	\$2.26 A	9/1/2022	\$2.26 A	9/1/2023	\$2.35 A	9/1/2024	\$2.50 A	9/1/2025	\$2.50 A
SEWER AND STORM DRAIN PIPELAYER	8/22/2018	08/31/2019**	9/1/2019	\$2.01 A	9/1/2020	\$2.01 A	9/1/2021	\$2.26 A	9/1/2022	\$2.26 A	9/1/2023	\$2.35 A	9/1/2024	\$2.50 A	9/1/2025	\$2.50 A
O SEWER AND STORM DRAIN PIPE TRADESMAN	8/22/2018	08/31/2019**	9/1/2019	\$0.80 A	9/1/2020	\$0.80 A	9/1/2021	\$0.90 A	9/1/2022	\$0.90 A	9/1/2023	\$0.94 A	9/1/2024	\$1.00 A	9/1/2025	\$1.00 A
SERVICE & REPAIR (PLUMBER/HVAC-FITTER)	8/22/2018	08/31/2019**	9/1/2019	\$2.01 A	9/1/2020	\$2.01 A	9/1/2021	\$2.26 A	9/1/2022	\$2.26 A	9/1/2023	\$2.35 A	9/1/2024	\$2.50 A	9/1/2025	\$2.50 A
LANDSCAPE/IRRIGATION FITTER	8/22/2018	08/31/2019**	9/1/2019	\$2.01 A	9/1/2020	\$2.01 A	9/1/2021	\$2.26 A	9/1/2022	\$2.26 A	9/1/2023	\$2.35 A	9/1/2024	\$2.50 A	9/1/2025	\$2.50 A

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: # CEMENT MASON

DETERMINATION: SC-23-203-2-2018-1

ISSUE DATE: August 22, 2018

EXPIRATION DATE OF DETERMINATION: June 30, 2019** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura Counties.

CLASSIFICATION (JOURNEYPERSON)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation/ Holiday	Training	Other Payments	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday ^a 1 1/2X	Sunday/ Holiday 2X
Cement Mason, Curb and Gutter Machine Operator; Clary and Similar Type of Screed Operator (Cement only); Grinding Machine Operator (all types); Jackson Vibratory, Texas Screed and Similar Type Screed Operator; Scoring Machine Operator	\$35.75	8.02	9.27	6.80 ^b	0.64	0.27	8	60.75	78.625 ^c	78.625 ^c	96.50
Magnesite, magnesite-terrazzo and mastic composition, Epoxy, Urethanes and exotic coatings, Dex-O-Tex	\$35.87	8.02	9.27	6.80 ^b	0.64	0.27	8	60.87	78.805 ^c	78.805 ^c	96.74
Floating and Troweling Machine Operator	\$36.00	8.02	9.27	6.80 ^b	0.64	0.27	8	61.00	79.00 ^c	79.00 ^c	97.00

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Saturday in the same work week may be worked at straight-time rate, up to 8 hours on Saturday or when the employee has worked a total of 40 hours in the work week, if it is not reasonably possible for any individual employee on a particular job site to complete 40 hours of work on a 8 hour day, Monday through Friday, due to inclement weather or similar act of God or a situation beyond the control of the contractor.

^b Includes an amount for supplemental dues.

^c Rate applies to the first 4 daily overtime hours and the first 12 hours worked on Saturday. All other time is paid at the double time (2X) rate.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: FENCE BUILDER (CARPENTER)

DETERMINATION: SC-23-31-20-2018-1

ISSUE DATE: August 22, 2018

EXPIRATION DATE OF DETERMINATION: June 30, 2019* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, and Ventura counties.

Classification (Journey person)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation and Holiday	Training	Other	Total Hours	Total Hourly Rate	Daily	Saturday ^b	Sunday and Holiday
Fence Builder	\$38.22	\$7.50	\$4.66	\$5.62	\$0.57	\$0.26	8	\$56.83	1 1/2X ^a	1 1/2X	
									\$75.94	\$75.94	\$95.05

^aRate applies to the first 4 overtime hours. All other time is paid at the Sunday and Holiday overtime hourly rate.

^bSaturdays in the same work week may be worked at straight-time for the first 8 hours if the job is shut down during the normal work week due to inclement weather, or reasons beyond the control of the employer.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

ATTACHMENT D – GENERAL PROVISIONS
HRS18-68
GENERATOR PROJECT – SAN BERNARDINO TRANSIT CENTER
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1. SCHEDULE OF VALUES

Within 15 calendar days after "Notice to Proceed," the Contractor shall, upon request by Omnitrans, submit a Schedule of Values of the lump sum Bid entered on the Bid Form for all construction work. This Schedule of Values will form the basis for progress payments in accordance with these Specifications and shall show all of the major categories and subcategories of work and equipment requested by Omnitrans. Bonds and insurance costs will be identified as a separate line item. Such Schedule of Values shall not be required if Omnitrans, at its sole discretion, elects to pay the Contractor in lump sum within thirty (30) calendar days of receipt of proper invoice following the Contractor's satisfactory completion and Omnitrans' acceptance of all work.

2. PROGRESS PAYMENTS

a. Invoicing Instructions and Requirements:

- 1) Contractor shall invoice Omnitrans monthly based upon the Schedule of Values.
- 2) Invoices shall be separately numbered and sent to Omnitrans at the address listed below:

Omnitrans
1700 West Fifth Street
San Bernardino, California 92411
Attn: AccountsPayables@omnitrans.org and contracts@omnitrans.org

- 3) The Contractor is required to submit a Conditional Waiver and Release Upon Partial Payment with each invoice. The Contractor must submit the Contractor Final Release with the final invoice. In addition, the Contractor shall submit a completed Disadvantaged Business Enterprise (DBE) form with each payment application.

b. For capital projects, Omnitrans pays invoices on the first Thursday of each month.

- 1) Subject to verification of receipt, accuracy, and quality of orders, invoices received will be paid on the first Thursday of the month after the received date of an invoice.
- 2) If received within the 10 days prior to the first Thursday of the month, payment may be delayed to the following month.

c. In no event shall Omnitrans be obligated to make any payment on account of the Services which would cause the total amount paid to Contractor to exceed that not-to-exceed amount set forth above unless the Contract is amended through a Change Order.

d. For purposes of calculating the progress payments, Omnitrans will use the Schedule of Values submitted by the Contractor at the start of this Agreement. In no event will Omnitrans make a progress payment that, when added to the prior progress payments, amounts to a sum more than the Contractor's actual aggregate incurred expenses, adjusted to include Contractor's overhead and profit as allocated to such incurred expenses.

- e. Omnitrans will pay only 95% of each progress payment amount as determined above, retaining 5% as part security for the fulfillment of this Agreement by the Contractor. Unless otherwise required by law, the final payment of five percent (5%) of the value of the total price of this Agreement, if unencumbered, shall be paid no later than sixty (60) days after the date of recordation of the Notice of Completion.
- f. No progress payments will be made for materials not installed.
- g. Progress payments made by Omnitrans in no way shall be deemed or construed as acceptance by Omnitrans of work or waiver by Omnitrans of any rights hereunder.
- h. Acceptance by Contractor of the final payment shall constitute a waiver of all claims against Omnitrans arising from this Agreement.
- i. The Contractor shall pay subcontractors, promptly upon receipt of each Omnitrans progress payment, the respective amounts allowed the Contractor on account of the work performed by subcontractors, to the extent of each such subcontractor's interest therein. Such payments to subcontractors shall be based on estimates made pursuant to this Agreement. Any diversion by the Contractor of payments received for prosecution of a contract, or failure to reasonably account for the application or use of such payments, constitutes ground for termination of the Contractor's control over the work and for taking over the work, in addition to disciplinary action by the Contractor's State License Board. The subcontractor shall notify, in writing, the Contractor's State License Board and Omnitrans of any payment less than the amount or percentage approved for the class or item of work as set forth in this Agreement.
- j. In addition to other amounts properly withheld under this Agreement, Omnitrans shall withhold all legally required sums for, but not necessarily limited to, stop payment notices, labor and tax liens, etc.

3. **FINAL INSPECTION AND ACCEPTANCE**

Promptly after Substantial Completion has occurred, Contractor shall perform all Punch List Work, if any, which was deferred for purposes of Project Completion, and shall satisfy all of its other contractual obligations under the contract documents.

When the Contractor determines that the work is fully completed, including satisfactory completion of all inspections, tests, and required documentation, Punch List and clean-up items, Contractor shall give Omnitrans a written request for Final Acceptance within ten (10) days thereafter, specifying that the work is completed and the date on which it was completed.

Within thirty (30) days after receipt of the request for Final Acceptance from Contractor, Omnitrans will make a final inspection of the work and will either:

- a. Reject the request for Final Acceptance, specifying the defective or uncompleted work; or
- b. Issue a written Final Acceptance and record Notice of Completion with County Recorder.

Substantial Completion is defined herein as; In the opinion of Omnitrans, that Work or portion thereof that is sufficiently complete and in accordance with the Contract, that it can be utilized by Omnitrans for the purpose for which it was intended. A determination of Substantial Completion does not waive, but may not require the prior completion of minor items, which do not impair Omnitrans ability to safely occupy and utilize the Work for its intended purpose.

4. **FINAL PAYMENT**

- a. After the filing of the Notice of Completion, Omnitrans will make a proposed final estimate, in writing, of the total amount payable to the Contractor, including therein an itemization of said amount, segregated as to contract item quantities, extra work and any other basis for payment, and shall also show therein all deductions made or to be made for prior payments and amounts to be kept or retained under the provisions of the contract. All prior estimates and payments shall be subject to correction in the proposed final estimate. Within 15 days after proposed final estimate has been submitted, Contractor shall submit to Omnitrans written approval of proposed final estimate and/or a written statement of all claims of the contract. No claim will be considered that was not included in written statement of claims, nor will any claim be allowed unless the Contractor has previously complied with the notice and protest requirements.
- b. On the Contractor's approval, or if he files no claim within stated period, Omnitrans will issue a final written estimate, in accordance with the proposed final estimate submitted to the Contractor; and 35 days after the date of filing the Notice of Completion Omnitrans will pay the entire sum found to be due. Such final estimate and payment thereon shall be conclusive and binding against the Contractor on all questions relating to the amount of work done and the compensation payable therefore, except as otherwise provided.
- c. If the Contractor within said period of 15 days files claims, Omnitrans will issue a semi-final estimate in lieu of the final estimate submitted to the Contractor; and 35 days after the date of filing of the Notice of Completion, Omnitrans will pay the sum found to be due. Such semi-final estimate and payment thereon shall be conclusive and binding against the Contractor on all questions relating to the amount of work done and the compensation payable therefore, except insofar as affected by the claims filed within the time and in the manner required hereunder and except as otherwise provided.
- d. Upon final determination of any outstanding claims, Omnitrans shall then make and issue a final estimate in writing and within 30 days thereafter, Omnitrans will pay the entire sum, if any, found due. Such final estimate shall be conclusive and binding against the Contractor on all questions relating to the amount of work done and the compensation payable therefore, except as otherwise provided.

5. **MODIFICATION TO SPECIFICATION (CHANGE ORDERS) AND SCOPE OF WORK**

- a. Modifications to the Specifications and or Scope of Work
 - 1) Omnitrans may, from time to time, make changes to the Specifications and or Scope of Work under the Contract, through a Change Order.
 - 2) A Change Order shall not modify the overall purpose of the Contract.
 - 3) At any time during the term of the Contract, Omnitrans may order Additional Services to be performed by the Contractor by a Change Order.
 - 4) *Additional Services* are defined as services that were not contained in the Contract and are determined by Omnitrans to be necessary, and where a reasonable relationship to the services originally described in the Contract exists.

- 5) Contractor shall not be entitled to make any changes in the services or perform any Additional Services unless authorized, in advance, by written Change Order.
 - 6) Contractor shall continue performance of the Scope of Work as modified by the Change Order upon receipt of a Change Order approved by Omnitrans.
 - 7) Contractor and Owner hereby agree and acknowledge that execution of the Change Order constitutes a mutual accord and satisfaction as to the work covered hereby. Contractor specifically waives and releases: any and all claims; rights or interest; including, but not limited to, those for: impact; disruption; loss of efficiency; “ripple”; other extraordinary; or consequential costs, arising directly or indirectly out of the work described in this Change Order, except as specifically included herein.
- b. Authorization of Additional Work
- 1) Authorization to make changes to the Specifications and or Scope of Work under the Contract shall be completed through a written Change Order.
 - 2) Persons authorized to make those changes will exclusively be:
Contractor: the person whose duly authorized signature appears on the PROPOSAL documents and has authority to legally bind the firm.
Omnitrans: CEO/General Manager.
 - 3) Either Omnitrans or Contractor may designate other persons as agreed upon in writing or as designated herein.
 - 4) For the purposes of this contract, temporary work ordered for special occasions that is not meant to affect the overall purpose and intent of this contract will be issued by Omnitrans under a separate contract and or purchase order. Any such additional work will be under the terms and conditions of that contract or purchase order, but may reference any portions of this contract.
- c. Price Adjustments
- 1) Any change in the contract that causes an increase or decrease in cost to Omnitrans, or the time required for the performance of the contract, must be approved as prescribed herein.
 - 2) An equitable adjustment in the compensation and schedule will be made upon an approved Change Order, which shall be incorporated, into the Contract by reference.
 - 3) Contractor shall be liable for all costs resulting from, and or for satisfactorily correcting, any specification change not properly ordered by written modification to the contract and signed by the Contracting Officer.
 - 4) Except as otherwise expressly provided in the Contract, when costs are a factor in any determination of a contract price adjustment, such costs shall be in accordance with the applicable cost principles of Subpart 31.2 of the Federal Acquisition Regulations (*FARs*) in effect at the onset of the Contract.

6. **CLAIMS**

- a. In accordance with Public Contract Code Sections 20104 *et seq.* and other applicable law, public works claims of \$375,000 or less which arise between the Contractor and Omnitrans shall be resolved under the following statutory procedure unless Omnitrans has elected to resolve the dispute pursuant to Public Contract Code Section 10240 *et seq.*
- b. **All Claims.** All claims shall be submitted in writing and accompanied by substantiating documentation. Claims must be filed on or before the date of final payment unless other notice requirements are provided in the Contract Documents. "Claim" means a separate demand by the claimant for (1) a time extension, (2) payment of money or damages arising from work done by or on behalf of the claimant and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled, or (3) an amount the payment of which is disputed by Omnitrans. The Contractor shall promptly comply with the Contract Documents in the performance of Work and/or the requests of Omnitrans even though a written claim has been filed. The Contractor and Omnitrans shall make good faith efforts to resolve any and all claims that may arise during performance of the Work covered by this Contract.
- c. **Claims Under \$50,000.** Omnitrans shall respond in writing to the claim within 45 days of receipt of the claim, or, Omnitrans may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims Omnitrans may have. If additional information is needed thereafter, it shall be provided upon mutual agreement of Omnitrans and the claimant. Omnitrans' written response shall be submitted 15 days after receiving the additional documentation, or within the same period of time taken by the claimant to produce the additional information, whichever is greater.
- d. **Claims over \$50,000 but less than or equal to \$375,000.** Omnitrans shall respond in writing within 60 days of receipt, or, may request in writing within 30 days of receipt of the claim, any additional documents supporting the claim or relating to defenses or claims Omnitrans may have against the claimant. If additional information is needed thereafter, it shall be provided pursuant to mutual agreement between Omnitrans and the claimant. Omnitrans' response shall be submitted within 30 days after receipt of the further documents, or within the same period of time taken by the claimant to produce the additional information or documents, whichever is greater. The Contractor shall make these records and documents available at all reasonable times, without any direct charge.
- e. The Contractor will submit the claim justification in the following format:
 - 1) Summary of claim merit and price, and Contract clause pursuant to which the claim is made.
 - 2) List of documents relating to claim
 - i. Specifications
 - ii. Drawings
 - iii. Clarifications (Requests for Information)

- iv. Schedules
 - v. Other
- 3) Chronology of events and correspondence
- 4) Analysis of claim merit
- 5) Analysis of claim cost
- 6) Analysis of time impact analysis in CPM format
- 7) Cover letter and certification of validity of the claim
- f. If the claimant disputes Omnitrans' response, or if Omnitrans fails to respond within the statutory time period(s), the claimant may so notify Omnitrans within 15 days of the receipt of the response or the failure to respond, and demand an informal conference to meet and confer for settlement. Upon such demand, Omnitrans shall schedule a meet and confer conference within 30 Days.
- g. If following the meet and confer conference, the claim or any portion thereof remains in dispute, the claimant may file a claim pursuant to Government Code 900 et seq. and Government Code 910 et seq. For purposes of those provisions, the time within which a claim must be filed shall be tolled from the time the claimant submits the written claim until the time the claim is denied, including any time utilized for the meet and confer conference.

Submission of a claim, properly certified, with all required supporting documentation, and written rejection or denial of all or part of the claim by Omnitrans, is a condition precedent to any action, proceeding, litigation, suit, general conditions claim, or demand for arbitration by Contractor.

Claims submitted by the Contractor shall be accompanied by a notarized certificate containing the language listed below. Failure to submit the notarized certificate will be cause for denying the claim.

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Certificate

Under the penalty of law for perjury or falsification with specific reference to the California False Claims Act, Government Code Section 12650 et. Seq., the undersigned,

(Name)

(Title)

(Company)

herby certifies that the claim for the additional compensation and time, if any, made herein for the work on this Contract is a true statement of the actual cost incurred and time sough, and is fully documented and supported under the Contract between the parties

Dated: _____

Signature: _____

NOTARY CERTIFICATION

STATE OF _____ }SS:
COUNTY OF _____

Subscribed and sworn to before me this _____ day of _____, 20____, by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Signature of Notary

Public _____

Printed/typed name of Notary

Public _____

County of residence _____ Date commission expires _____

(SEAL)

7. ACCELERATION

- a. Omnitrans reserves the right to accelerate the work of the Contract at any time during its performance. In the event that Omnitrans directs acceleration, such directive will be given to the Contractor in writing. The Contractor shall keep cost and other Project records related to the acceleration directive separately from normal Project cost records and shall provide a written record of acceleration costs to Omnitrans on a daily basis.
- b. In the event that the Contractor believes that some action or inaction on the part of Omnitrans constitutes an acceleration directive, the Contractor shall immediately notify Omnitrans in writing that the Contractor considers the actions or inactions an acceleration directive. This written notification shall detail the circumstances of the acceleration directive. The Contractor shall not accelerate their work efforts until Omnitrans responds to the written notification. If acceleration is then directed or required by Omnitrans, all cost records referred to in section (1) shall be maintained by the Contractor and provided to Omnitrans on a daily basis.
- c. In order to recover additional costs due to acceleration, the Contractor must document that additional expenses were incurred and paid by the Contractor. Labor costs recoverable will only be overtime or shift premium costs or the cost of additional laborers brought to the site to accomplish the accelerated work effort. Equipment costs recoverable will only be the cost of added equipment mobilized to the site to accomplish the accelerated work effort.

8. STOP PAYMENT NOTICES

Omnitrans, at its sole discretion, may, at any time, retain out of any amounts due the Contractor, sums sufficient to cover claims filed pursuant to Section 9530 et. seq. of the California Civil Code.

9. ORDER OF WORK

Contractor shall perform work hereunder at such places, and in such order or precedence, as may be determined necessary by the Engineer to expedite completion of the required work.

10. LABOR PROVISIONS

- a. Prevailing Wages
 - 1) Contractor shall comply with all applicable requirements of Division 2, Part 7, Chapter 1 of the Labor Code and all applicable federal requirements respecting prevailing wages. If there is a difference between the minimum wage rates predetermined by the Secretary of Labor and the wage rates determined by the Director of the Department of Industrial Relations (DIR) for similar classifications of labor, the Contractor and subcontractors shall not pay less than the higher wage rate. The DIR will not accept lower state wage rates not specifically included in the Federal minimum wage determination.
 - 2) The Contractor and each subcontractor shall forfeit as a penalty to Omnitrans not more than Two Hundred Dollars (\$200.00) for each calendar day, or portion thereof, for each worker paid less than the stipulated prevailing wage rate for any work done by him, or

by any subcontract under him, in violation of the provisions of the Labor Code. The difference between such stipulated prevailing wage rate and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the Contractor.

- 3) The Contractor shall obtain a copy of the prevailing rates of per diem wages at the commencement of this Agreement from the website of the Division of Labor Statistics and Research of the Department of Industrial Relations located at www.dir.ca.gov/dlsr/. In the alternative, the Contractor may view a copy of the prevailing rates of per diem wages upon request to OMNITRANS. Contractor shall make copies of the prevailing rates of per diem wages for each craft, classification, or type of worker needed to perform work on the Project available to interested parties upon request, and shall post copies at the Contractor's principal place of business and at the Project Site. Contractor shall post, at appropriate conspicuous points on the Project Site, a schedule showing all determined general prevailing wage rates and all authorized deductions, if any, from unpaid wages actually earned.

~~b. Minimum Wages~~

- 1) All mechanics and laborers employed or working upon the site of the work will be paid unconditionally, and not less often than once a week and without subsequent deduction or rebate on any account, the full amounts due at time of payment computed at wage rates not less than those specified in the General Wage Determinations referenced in this section regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics; and the wage determination decision shall be posted by the Contractor at the site of the work in a prominent place where it can be easily seen by the workers. For the purpose of this clause, contributions made or cost reasonably anticipated under the Labor Code of the State of California on behalf of laborers or mechanics are considered wages paid by such Laborers or mechanics. Also for the purpose of this clause, regular contributions made or costs incurred for more than a weekly period under plans, funds or programs, but covering the particular weekly period, are deemed to be constructively made or incurred during such weekly period.
- 2) Omnitrans shall require that any class of laborers or mechanics, including apprentices and trainees, which is not listed in the General Wage Determinations and which is to be employed under this Contract, shall be classified conformably to such wage determinations. In the event Omnitrans does not concur in the Contractor's proposed classification or reclassification of a particular class of laborers and mechanics (including apprentices and trainees) to be used, the question, accompanied by the recommendation of Omnitrans, shall be referred to the State Director of Industrial Relations for determination.
- 3) Omnitrans shall require, whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly wage and the Contractor is obligated to pay a cash equivalent of such a fringe benefit, an hourly cash equivalent thereof to be established. In the event the interested parties cannot agree upon cash equivalent of the fringe benefit, the questions, accompanied by the recommendation of Omnitrans, shall be referred to the State

Director of Industrial Relations for determination.

- 4) All disputes concerning the payment of wages or the classification of workers under this Agreement shall be promptly reported to Omnitrans.

c. Deductions

In addition to amounts which Omnitrans may retain under other provisions of the Contract Documents Omnitrans may withhold payments due to Contractor as may be necessary to cover:

- 1) Stop Payment Notice Claims.
 - 2) Defective work not remedied.
 - 3) Failure of Contractor to make proper payments to its subcontractors or suppliers.
 - 4) Completion of the Contract if there exists a reasonable doubt that the work can be completed for balance then unpaid.
 - 5) Damage to another Contractor or third party.
 - 6) Amounts which may be due Omnitrans for claims against Contractor.
 - 7) Failure of Contractor to keep the record (“as-built”) drawings up to date.
 - 8) Failure to provide updates on the construction schedule and/or a recovery schedule if required.
 - 9) Site clean-up.
 - 10) Failure of the Contractor to comply with requirements of the Contract Documents, including but not limited to Contractor’s failure to provide approved complete as-builts prior to filing of Notice of Completion.
 - 11) Liquidated damages.
 - 12) Legally permitted penalties.
- i. Omnitrans may apply such withheld amount or amounts to payment of such claims or obligations at its discretion with the exception of subsections (a), (c) and (e) of this Article, which must be retained or applied in accordance with applicable law. In so doing, Omnitrans shall be deemed the agent of Contractor and any payment so made by the Contractor shall be considered as a payment made under contract by Omnitrans to Contractor and Omnitrans shall not be liable to Contractor for such payments made in good faith. Such payments may be made without prior judicial determination of the claim or obligations. Omnitrans will render Contractor a proper accounting of such funds disbursed on behalf of the Contractor.

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- ii. Upon completion of the Contract, Omnitrans will reduce the final Contract amount to reflect costs charged to the Contractor, back charges or payments withheld pursuant to the Contract Documents.
- iii. All amounts owing by Contractor to Omnitrans under the Contract shall earn interest from the date on which such amount is owing at the lesser of (i) 10% per annum or (ii) the maximum rate allowable under applicable Governmental Rules.

d. Payrolls and Basic Records

- 1) Payrolls and basic records relating thereto will be maintained during the course of the work and preserved for a period of three (3) years thereafter for all laborers and mechanics working at the site of the work. Such records will contain the name, address and social security number of each such worker, the correct classification, rates of pay, daily and weekly number of hours worked, deductions made and actual wages paid.
- 2) Pursuant to Labor Code Section 1776, the Contractor and each subcontractor shall maintain weekly certified payroll records showing the name, address, social security number, work classification, straight time and overtime hours paid each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed in connection with the work. Contractor shall certify under penalty of perjury that records maintained and submitted by Contractor are true and accurate. Contractor shall also require subcontractor(s) to certify weekly payroll records under penalty of perjury
- 3) The Contractor will submit weekly a copy of all payrolls to Omnitrans as required in these "Labor Provisions" as well as to the Department of Industrial Relations (DIR). See subsection 17, Certified Payroll Compliance Monitoring, in this section. The copy shall be accompanied by a statement signed by the employer or its agent indicating that the payrolls are correct and complete, that the wage rates contained therein are not less than those determined by the State Director of Industrial Relations and that the classifications as set forth for each laborer or mechanic conform to the work performed. A submission of the "Weekly Statement of Compliance," which is required under this Contract, shall satisfy this requirement. The prime Contractor shall be responsible for the submission of copies of payrolls of all subcontractors. The Contractor will make the records required under the labor standard clauses of the contract available for the inspection by authorized representatives of Omnitrans, and will permit such representatives to interview employees during working hours on the job. In the event of noncompliance with the requirements of this Section, the Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying any item or actions necessary to ensure compliance with this section. Should noncompliance still be evident after such ten (10) day period, the Contractor shall, as a penalty to Omnitrans, forfeit One Hundred Dollars (\$100.00) for each day, or portion thereof, for each worker until strict compliance is effectuated. Upon the request of the DIR, such penalties shall be withheld from contract payments

e. Apprentices and Trainees

- 1) Apprentices: Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed and individually registered in a bona fide apprenticeship program as defined in section 1777.5 of the Labor Code of the State of

California. The allowable ratio of apprentices to journeymen in any craft classification shall not be greater than the ratio permitted to the Contractor as to his entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate who is not registered or otherwise employed as stated above, shall be paid the wage rate determined by the State Director of Industrial Relations for the classification of work he actually performed. The Contractor or subcontractor will be required to furnish to Omnitrans or the State Director of Industrial Relations written evidence of the registration of his program and apprentices as well as the appropriate ratios and wage rates (expressed in percentages of the journeyman's rate contained in the applicable wage determination).

- 2) Trainees: Except as provided in 29 CFR 5.15, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to or individually registered in a program which has received prior approval, evidenced by formal certification, by the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training. The ratio of trainees to journeymen shall not be greater than that permitted under the plan approved by the Bureau of Apprenticeship and Training. Every trainee must be paid at not less than the rate specified in the approved program for his level of progress. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Bureau of Apprenticeship and Training shall be paid not less than the wage rate determined by the Secretary of Labor for the classification of work he actually performed. The Contractor or subcontractor will be required to furnish the contracting officer or a representative of the Wage-Hour Division of the U.S. Department of Labor written evidence of the certification of his program, the registration of the trainees, and the ratios and wage rates prescribed in that program. In the event the Bureau of Apprenticeship and Training withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- 3) Equal Employment Opportunity: The utilization of apprentices and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR, Part 30.

f. Compliance with Copeland Regulations (29 CFR, Part 3)

The Contractor shall comply with the Copeland Regulations (29 CFR, Part 3) of the Secretary of Labor which is herein incorporated by reference.

g. Contract Termination; Debarment

A breach of item 1 through 6 may be grounds for termination of the contract, and for debarment as provided in 29 CFR 5.6.

h. Overtime Requirements

No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic in any work week in which he is employed on such work to work in excess of 8 hours a day or 40 hours in such work week unless such laborer or

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mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 8 hours a day or 40 hours in such work week.

i. Violation; Liability for Unpaid Wages

Pursuant to section 1775 of the Labor Code of the State of California, in the event that any workman employed on this public works project is paid less than the amount specified in the General Prevailing Wage Determinations or less than is required, relative to overtime, the Contractor and any subcontractor responsible therefore shall be liable to the affected workman for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the State of California or Omnitrans for liquidated damages. Such liquidated damages shall be computed with respect to each individual workman found to be underpaid and shall be in the amount of \$50 per calendar day that a workman was underpaid.

j. Withholding for Liquidated Damages

Omnitrans may withhold or cause to be withheld, from any monies payable on account of work performed by the Contractor or subcontractor, such sums as may administratively be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for liquidated damages as provided in this section.

k. Final Labor Summary

The Contractor and each subcontractor shall furnish to Omnitrans, upon the completion of the contract, a summary of all employment, indicating for the completed project, the total hours worked and the total amount earned.

l. Final Certificate

Upon completion of the contract, the Contractor shall submit to Omnitrans, with the voucher for a final payment for any work performed under the contract, a concerning wages and classifications for laborers and mechanics, including apprentices and trainees employed on the project, in the following form:

The undersigned, Contractor on

(Contract No.)

hereby certifies that all laborers, mechanics, apprentices and trainees employed by the Contractor or by a subcontractor performing work under the contract on the project have been paid wages at rates not less than those required by the contract provisions, and that the work performed by each such laborer, mechanic, apprentice or trainee conformed to the classifications set forth in the contract or training program provisions applicable to the wage rate paid.

Signature and Title

m. Notice to Omnitrans of Labor Dispute

Whenever the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this contract, the Contractor shall immediately give notice thereof, including all relevant information with respect thereto, to Omnitrans.

n. Disputes Clause

- 1) All disputes concerning the payment of prevailing wage rates or classifications shall be promptly reported to Omnitrans for its referral to DOT for decision or, at the option of Omnitrans, DOT referral to the Secretary of Labor. The decision of DOT or the Secretary of Labor, as the case may be, shall be final.
- 2) All questions relating to the application or interpretation of the Copeland Act, the Contract Work Hours Standards Act, the Davis-Bacon Act, or Section 13 of the Act shall be sent to the Federal Transit Administration (FTA) for referral to the Secretary of Labor for ruling or interpretation, and such ruling or interpretation shall be final.

o. Convict Labor

In connection with the performance of work under this Contract, the Contractor agrees not to employ any person-undergoing sentence of imprisonment at hard labor. This does not include convicts who are on parole or probation.

p. Insertion in Subcontracts

The Contractor shall set forth in item 1 through 15 of this Section so that all of the provisions of this section will be inserted in all construction subcontracts of any tier, and such other clauses as the Government may by appropriate instructions require.

q. Certified Payrolls Compliance Monitoring

- 1) This project is subject to monitoring and enforcement by the Department of Industrial Relations (DIR).
- 2) This project is subject to prevailing wages.
- 3) Contractors and subcontractors are obligated to submit certified payroll records utilizing the DIR's eCPR system. You can access additional information regarding the DIR's reporting system by using the following link: <http://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html>.

11. TIME EXTENSION/DELAYS

- a. Contractor may be granted an extension of time for any portion of a delay in completion of the work due to acts of God, the public enemy, wars, civil unrest, fires, quarantine restrictions, or weather more severe than normal, providing that (1) the aforesaid causes were not foreseeable and did not result from an act or omission by the Contractor, (2) Contractor has taken reasonable precautions to prevent further delays owing to such causes, and (3) Contractor notifies Omnitrans in writing of the cause(s) for the delay within ten (10)

days from the beginning of any such delay. No claims for additional compensation or damages for the foregoing delays shall be allowed to the Contractor, and the extension of time provided for herein shall be the sole remedy of the Contractor on account of any such delays.

- b. An extension of time will not be granted for a delay described in the above paragraph(s) caused by a shortage of materials, except if materials are furnished by Omnitrans, unless the Contractor supplies Omnitrans with documented proof that every effort to obtain the materials from all known sources that (a) such materials could have been obtained only at exorbitant prices or (b) the prices were entirely inconsistent with current rates, taking into account the quantities; and (c) such facts could not have been known or anticipated at the time the Notice To Proceed was issued. Contractor shall also submit proof, that the inability to obtain such materials when originally planned, did in fact, cause a delay in completion of the work that could not be compensated for by revising the sequence of its operations. Only the physical shortage of material will be considered as a basis for an extension of time.
- c. An extension of time for weather more severe than normal shall be granted only to the extent the work is actually delayed as determined by Omnitrans. Normal is defined as the monthly average of the temperature and rainfall wherein the work was performed for the prior 20 years before the execution of the contract.
- d. In the event Contractor is actually and necessarily delayed by an act or omission on the part of Omnitrans, as determined by Omnitrans, the Contractor shall notify Omnitrans in writing within five (5) days from the beginning of any such delay. The time for completion of the work may be extended at the sole discretion of Omnitrans.
- e. Within 30 days after the last day of delay, Contractor shall provide Omnitrans with detailed information concerning the circumstances of the delay, the number of days actually delayed, and the measures taken to minimize or prevent the delay. Failure to submit information shall be sufficient reason to deny the claim. Omnitrans shall ascertain the facts and the extent of the delay; and provide the Contractor its written findings, which will be final and conclusive. Except for the additional compensation for herein and except as provided in Public Contract Code Section 7102, Contractor shall have no claim for damages or compensation for any delay or hindrance.
- f. No extension of time will be granted for any Omnitrans caused delay or delay as defined in which (a) the performance of work would have been concurrently delayed by Contractor induced causes, including but not limited to an act or omission of the Contractor, or (b) remedies are included or excluded by any other contract provision. Only the actual delay necessarily resulting from the causes specified in this Article shall be grounds for extension of time. Should the Contractor be delayed at any time for any period by two or more of the causes specified in this article, Contractor shall only be entitled to one time extension for the entire delay.
- g. Any time extension granted to Contractor shall not release the Contractor or surety from its obligations. Work shall continue and be carried on in accordance with the contract provisions, unless formally suspended or terminated by Omnitrans.

12. NONDISCRIMINATION

During the performance of this Contract, the Contractor agrees as follows:

- a. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex or national origin. Such action shall include, but not be limited to employment; upgrading; demotion; transfer; recruitment or recruitment advertising; layoff; termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post, in conspicuous places available to the employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex or national origin.
- c. The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this Section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- d. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- e. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of the said rules, regulations or orders, this Contract may be canceled, terminated or suspended in whole or in part, and the Contractor may be declared ineligible for further Government contracts or Federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation or order, of the Secretary of Labor, or as otherwise provided by law.
- f. The Contractor will include the provisions of this Paragraph ("Nondiscrimination") in every subcontract or purchase order entered into under this Agreement unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the

Contractor may request the United States to enter into such litigation to protect the interests of the United States.

- g. No person employed on the work covered by this Agreement shall be discharged or in any way discriminated against because he has filed any complaints or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable hereunder to his employer.

13. **TITLE VI OF THE CIVIL RIGHTS ACT OF 1964**

Contractor agrees to comply with and ensure compliance by all subcontractors with all requirements of Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. §2000d; 49 U.S.C. §5332 and Department of Transportation Regulations, "Nondiscrimination in Federally-Assisted Programs of the Department of Transportation-Effectuation of Title VI of the Civil Rights Act," 49 CFR Part 21.

14. **GOVERNMENT INSPECTIONS**

Omnitrans or Government representatives shall have access to the construction site and shall have the right to inspect all project works.

15. **LICENSING, PERMITS AND INSPECTION COSTS**

- a. The Contractor warrants that it has all necessary licenses and permits required by the laws of the United States, State of California, the County of San Bernardino, the Local Jurisdictions, and all other appropriate governmental agencies, and agrees to maintain these licenses and permits in effect for the duration of the Agreement. Further, Contractor warrants that its employees, agents, and Contractors and subcontractors shall conduct themselves in compliance with such laws and licensure requirements including, without limitation, compliance with laws applicable to nondiscrimination, sexual harassment and ethical behavior throughout the duration of this Agreement. Contractor further warrants that it shall not retain or employ an unlicensed subcontractor to perform work on this Project. Contractor shall notify Omnitrans immediately and in writing of its employees', agents', Contractors' or subcontractors' inability to obtain or maintain, irrespective of the pendency of any appeal, any such licenses, permits, approvals, certificates, waivers, and exemptions. Such inability shall be cause for termination of this Agreement.
- b. Contractor shall procure all permits and licenses and pay all charges, assessments and fees as may be required by the ordinances and regulations of the public agencies having jurisdiction over the areas in which the work is located, and shall comply with all the terms and conditions thereof and with all lawful orders and regulations of each such public agency relating to construction operations under the jurisdiction of such agency.
- c. Contractor shall act as permittee on behalf of Omnitrans for coordination of all associated City of San Bernardino Building Department inspections.

16. **HAZARDOUS SUBSTANCES**

- a. CAL-OSHA Requirements

All flammable, corrosive, toxic or reactive materials being bid must have a complete CAL-OSHA Safety Data Sheet (SDS) accompanying the submitted bid.

b. Notice of Hazardous Substances

Title 8, California Code of Regulations, Section 5194 (e)(c), states that the employer must inform any Contractor employers with employees working in the employer's workplace of the hazardous substances to which their employees may be exposed while performing their work. In compliance with this requirement, Omnitrans hereby gives notice to all Bidders that the following general categories of hazardous substances are present on Omnitrans' premises:

- 1) adhesives, sealant, patching and coating products
- 2) antifreeze, coolants
- 3) cleaners, detergents
- 4) paints, thinners, solvents
- 5) pesticides, petroleum products (diesel and unleaded fuel, oil products)
- 6) printing, photocopying materials
- 7) propane welding materials/compressed gases (e.g., acetylene, oxygen, nitrogen)

More specific information may be obtained from Omnitrans Safety and Security Office, and from Safety Data Sheets for individual products.

17. **MEDIA AND THE PUBLIC**

Contractor shall immediately refer all inquiries from the news media or other public sources to Omnitrans' Project Manager, or designated representative, relating to this project.

18. **COORDINATION AND ACCESS**

Omnitrans may undertake or award other contracts for additional work at the project site. Contractor is responsible for coordinating its work with the work of other Contractors as appropriate. The Contractor acknowledges that they do not have any exclusive access to the site or other work areas. Omnitrans may require that certain facilities and areas be used concurrently by the Contractors and others. Contractor shall cooperate fully with Omnitrans Contractors/consultants that may be performing work in the construction area.

19. **UTILITIES RELATED DELAYS**

If, due to interruptions caused by the undocumented utilities, Contractor sustains loss which could not have been avoided by the judicious handling of forces, equipment and plant, there shall be paid to the Contractor that amount that Omnitrans may find to be a fair and reasonable compensation for the part of the Contractor's actual loss, that, in the opinion of Omnitrans was unavoidable, determined as follow: Compensation for idle time of equipment will be determined in the same manner as determinations are made for equipment used in the performance of extra work paid for on a force account basis per Section E, Modifications in the Specifications and Scope of Work, with the following exceptions:

- a. The utility related delay factor for each classification of equipment shown in the Department of Transportation publication entitled Labor Surcharge and Equipment

Rental Rates will be applied to that equipment rental rate.

- b. The time for which the compensation will be paid will be the actual normal working time during which the delay condition exists, but in no case will exceed 8 hours in any one day.
- c. The days for which compensation will be paid will be the calendar days, excluding Saturdays, Sundays and legal holidays, during the existence of the delay, except that when the rented equipment can be returned or used elsewhere on the project, then no payment will be made for utilities related delays.

Actual loss shall be understood to include no items of expense other than idle time of equipment and necessary payments for idle time of workers, and cost of extra moving of equipment.

20. UTILITIES AND SUBSURFACE STRUCTURES

Contractor shall protect from damage utility and other subsurface structures that are to remain in place, be installed, relocated or otherwise rearranged (as used herein, rearranged includes installation, relocation, alteration or removal).

The right is reserved to Omnitrans, or their authorized agents, to enter upon the site for the purpose of making those changes that are necessary for the rearrangement of their facilities or for making necessary connections or repairs to their properties. Contractor shall cooperate with forces engaged in this work and shall conduct operations in such a manner as to avoid any unnecessary delay or hindrance to the work being performed by the other forces. Wherever necessary, the work of Contractor shall be coordinated with the rearrangement of utility or other non-highway facilities, and Contractor shall make arrangements with the owner of those facilities for the coordination of the work.

Attention is directed to the possible existence of underground main or trunk line utilities not indicated on the plans or in the special provisions and to the possibility that underground main or trunk lines may be in a location different from that which is indicated on the plans or in the special provisions. Contractor shall ascertain the exact location of underground main or trunk lines whose presence is indicated on the plans or in the special provisions, the location of their service laterals or other appurtenances, and of existing service lateral or appurtenances of any other underground facilities which can be inferred from the presence of visible facilities such as buildings, meters and junction boxes prior to doing work that may damage any of the facilities or interfere with their service.

If Contractor cannot locate an underground utility whose presence is indicated on the plans or in the special provisions, the Contractor shall so notify Omnitrans in writing. If the utility for which the notice is given is in a substantially different location from that indicated on the plans or in the special provisions, the additional cost of locating the utility will be paid for as extra per Section E, Modifications in the Specifications and Scope of Work.

If Contractor discovers underground main, trunk lines or other structures and utilities not indicated on the plans or in the special provisions, Contractor shall immediately give Omnitrans and the Utility Company written notification of the existence of those utilities. Such utilities shall be located and protected from damage as directed by Omnitrans, and the cost of that work will be paid for as extra work per Section E, Modifications in the Specifications and Scope of

Work. Contractor shall, if directed by Omnitrans repair any damage which may occur to the main or trunk lines. The cost of that repair work, not due to the failure of the Contractor to exercise reasonable care, will be paid for as extra work per Section E, Modifications in the Specifications and Scope of Work. Damage due to Contractor's failure to exercise reasonable care shall be repaired at the Contractor's cost and expense.

Where it is determined by Omnitrans that the rearrangement of an underground utility essential in order to accommodate the project work and the plans and specifications do not provide that the utility is to be rearranged, Omnitrans will provide for the rearrangement of the utility by other forces or the rearrangement shall be performed by Contractor and will be paid for as extra work per Section E, Modifications in the Specifications and Scope of Work.

When ordered by Omnitrans in writing, Contractor shall rearrange any utility or other subsurface structures necessary to be rearranged as a part of the project work and that work will be paid for as extra work per Section E, Modifications in the Specifications and Scope of Work.

Should Contractor desire to have any rearrangement made in any utility facility, or other improvement, for the Contractor's convenience in order to facilitate the Contractor's construction operations, which rearrangement is in addition to, or different from, the rearrangements indicated on the plans or in the special provisions, the Contractor shall make whatever arrangements are necessary with the owners of the utility or other subsurface structure for the rearrangement and bear all expenses in connection therewith.

Contractor shall immediately notify Omnitrans of any delays to the Contractor's operations as a direct result of underground utilities or other structures which were not indicated on the plans or in the special provisions or were located in a position substantially different from that indicated on the plans or in the special provisions, (other than delays in connection with rearrangements made to facilitate the Contractor's construction operations or delays due to a strike or labor dispute). These delays will be considered utilities related delays within the meaning of Section S, Utilities Related Delays and compensation for the delay will be determined in conformance with the provisions in Section J, Labor Provisions. Contractor shall be entitled to no other compensation for that delay.

21. LOCATION OF UNDERGROUND UTILITIES (OFFSITE WORK ONLY)

Contractor is required to obtain permits prior to start of excavation by contacting the appropriate permitting agencies at least 15 calendar days in advance. For the Offsite work scan the construction site with electromagnetic or sonic equipment, and mark the surface of the ground where existing underground utilities are discovered. Verify the elevations of existing piping, utilities, and any type of underground obstruction not indicated or specified to be removed but indicated or discovered during scanning in locations to be traversed by piping, ducts, and other work to be installed. Verify elevations before installing new work closer than nearest manhole or other structure at which an adjustment in grade can be made. Perform potholing to confirm location of all the utilities along the construction alignment prior to start of the construction. The Contractor is responsible for all costs associated with these investigations including the cost of equipment, labor and materials required for any confined space entry.

22. UNFORESEEN HAZARDOUS OR REGULATED MATERIALS

All known hazardous or regulated materials are indicated in the contract documents. If material that is not indicated in the contract documents is encountered that may be dangerous to human health upon disturbance during construction operations, stop that portion of work and notify Omnitrans immediately. Intent is to identify materials such as PCB, lead paint, mercury, petroleum products, and friable and non-friable asbestos. The handling, containment and disposal of hazardous and containment material shall be in accordance with applicable State, Federal, and local environmental laws and regulations.

Contractor shall immediately notify Omnitrans of any delays to the Contractor's operations as a direct result of Unforeseen Hazardous and Regulated Materials. These delays will be considered utilities related delays within the meaning of Section S, Utilities Related Delays and compensation for the delay will be determined in conformance with the provisions in Section J, Labor Provisions. Contractor shall be entitled to no other compensation for that delay.

23. CONTRACTOR'S OBLIGATIONS

a. Overview of Contractor's Responsibilities

1.1. General:

Contractor shall furnish the following on the Project, in accordance with Omnitrans-furnished Contract Documents and all other requirements set forth in the Contract:

1.1.1. Construction Services – Contractor shall furnish labor, material and equipment necessary to construct the Project as designed in a timely manner, in accordance with all construction practices generally accepted as standards of the industry in the State of California, in a good and workmanlike manner, free from construction defects.

1.2. Compliance with Requirements – Contractor shall perform all services set forth in Paragraph entitled General Guidelines above (in this section), provide all materials and undertake all efforts necessary or appropriate (excluding only those materials, services and efforts that the Contract Documents specify will be furnished by Omnitrans or other persons) to construct the Project in accordance with the requirements of the Contract Documents, the Schedule, all applicable Laws, all Governmental Approvals, the Construction Documents provided to Omnitrans, and all other applicable safety, environmental and other requirements, and other physical limits resulting from constraints affecting the Project, so as to achieve Substantial Completion and Final Acceptance and to perform all required tests by the deadlines specified herein, and otherwise to do everything required by and in accordance with the Contract Documents.

1.3. Professional Qualifications – Contractor shall perform the Work under the supervision of persons licensed and certified to practice the applicable function/profession in the State of California, by personnel who are careful, skilled, experienced and competent in their respective trades or professions, who are professionally qualified to perform the Work in accordance with the Contract, and who shall assume professional responsibility for the accuracy and completeness of the Work prepared or checked by them.

1.4. Governing Dimensions – Before commencing any construction work, Contractor shall verify all governing dimensions at the Worksite, examine all adjoining work and activities that may have an impact on Work, and ensure that the Contract Documents (and any other documents related to the Work) accurately depict all governing and adjoining dimensions.

1.5. Scheduling – Contractor shall schedule and direct its work to provide an orderly work progression, achieve on-time completion of all Milestones set forth in the Schedule, and complete its work within the Contract Time. To accomplish this goal, Contractor shall furnish such employees, materials, facilities and Equipment, and work such hours (including extra shifts, overtime operations, Sundays and holidays), as may be necessary.

1.6. Means and Methods – Contractor shall be solely responsible for the performance of its Work in accordance with its own means, methods, sequences, and procedures, and for coordination of all portions of its Work in compliance with the Contract.

1.7. Performance During Disputes – At all times during the term hereof, including during any Dispute, Contractor shall perform as directed by Omnitrans, and shall comply with all provisions of the Contract.

1.8. Ascertaining Facts – Contractor shall be solely responsible for its failure to ascertain the facts and take the actions described, represented, warranted, and acknowledged in this Article, and no provision of this Contract shall be construed to relieve Contractor from responsibility for such failure.

1.9. Subcontractors & Suppliers – Contractor shall be responsible for the acts and omissions of its Subcontractors and Suppliers. Contractor agrees to bind every subcontractor to the terms of this Agreement as far as such terms are applicable to subcontractor's portion of the Work

1.10. Assistance to Omnitrans – Contractor shall provide such assistance as is reasonably requested by Omnitrans in dealing with any Government Entity, or in prosecuting and defending Environmental lawsuits in any and all matters relating to the Work. Such assistance may include providing information and reports regarding the Work, as well as executing declarations and attending meetings and hearings. In no event shall the Contractor be required to provide legal services.

1.11. Cooperation – The Contractor will cooperate with Omnitrans and its Authorized Representative(s), in their review(s) and/or inspection(s) of any portion or phase of the Work, and other matters relating to the Work.

1.12. Mitigation – The Contractor will Mitigate Delay in all circumstances, to the extent reasonably possible, including the re-sequencing, reallocating or redeploying of its forces to other work, as appropriate.

24. **CONTRACTOR'S REPRESENTATIONS, WARRANTIES AND COVENANTS**

Contractor represents, warrants and covenants for the benefit of Omnitrans that:

a. Status – If it is a corporation, limited partnership, general partnership, and/or joint venture,

it is duly organized, validly existing and in good standing under the Laws of its jurisdiction of formation, and has full power and authority to own and operate its business and properties and perform the Work within the State of California.

- b. Contractor & Subcontractor Qualifications – It and all of its Subcontractors are, and will be and will remain, fully experienced and properly qualified to perform the Work, and are, and throughout the term of this Contract shall remain, properly licensed, equipped, organized and financed to perform the Work hereunder and shall perform it in accordance with the Contract and in accordance with professional standards of skill, care, and diligence adhered to by firms recognized for their expertise, experience and knowledge in performing Work of a similar nature.
- c. Control of Employees and Subcontractors – It shall maintain complete control of its employees, and its Subcontractors and Suppliers of all tiers, and shall not assign or transfer Work from itself or any listed Subcontractor or Supplier to itself or any other Subcontractor or Supplier without the written consent of Omnitrans.
- d. Review of Information and Inspection of Worksites – It has, in accordance with prudent and generally accepted engineering and construction practices:
 - 1) Reviewed all of the information provided in the Contract (including reports provided by Omnitrans);
 - 2) Inspected and evaluated the Worksite and surrounding locations to the extent the Contractor deems necessary or advisable for performing all portions/phases of the Work under the Contract. These inspections and evaluations include without limitation:
 - i. The character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the Worksite, including review of the Contract Documents provided by Omnitrans.
 - ii. Conditions bearing upon transportation, disposal, handling, and storage of materials, Goods, and Equipment;
 - iii. The availability of labor, water, electric power, and roads;
 - iv. Uncertainties of weather, or physical conditions at the site;
 - v. The conformation and conditions of the ground;
 - vi. The character of Equipment and facilities needed preliminary to and during Work performance; and
 - vii. Conditions bearing upon security and protection of material, Goods, Equipment, and Work in progress.
- e. Physical Requirements – As a result of its inspection and examination of the Worksite, and other related and surrounding sites and conditions, it is familiar with and accepts the

physical requirements of the Work.

- f. Feasibility – As a result of its review of all the information and its inspection and examination of the Worksite, it has evaluated the feasibility of performing the Contract within the Contract Time and for the Total Contract Price, and has reasonable grounds for believing and does believe that such performance, including achievement of Substantial Completion of the Project within the Contract Time, for the Total Contract Price is feasible and practicable.
- g. Legal Proceedings – There are no existing or threatened legal proceedings against Contractor that would have an adverse effect on its ability to perform its obligations under the Contract, its financial condition or its operations.
- h. Governmental Approvals – Based upon its review of the Contract Documents, it shall be able to obtain and keep in effect throughout the Contract Time all Governmental Approvals the Contractor is obligated to obtain in accordance with the Contract.
- i. Difficulty and Cost of Work – It has estimated the difficulty and cost of successfully performing the Work, and based upon that estimate has concluded that it can successfully perform the Work at the Total Contract Price.
- j. Non-Debarment: In accordance with the provisions of the California Labor Code, Contractors or subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant section 1777.1 or section 1777.7 of the California Labor Code. Any contract on a public works project entered into between a Contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid to a debarred subcontractor by the Contractor for the Project shall be returned to Omnitrans. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the Project.
- k. Non-Discrimination: Contractor shall comply with all applicable federal, state, and local laws, rules, and regulations pertaining to non-discrimination, including but not limited to, Section 1735 of the California Labor Code and Section 12940 of the California Government Code. The Contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of Title 49 CFR (Code of Federal Regulations) part 26 in the award and administration of US DOT assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate. Each subcontract signed by the bidder must include this assurance.
- l. Conflicts of Interest/ Criminal Activities: A Contractor shall not permit any official, officer or employee of Omnitrans during his tenure, or for one year thereafter, to have any interest, direct or indirect, in this Contract or the proceeds thereof. However, this subsection shall not be construed to extend to this Contract if made with a corporation for its general benefit. Contractor, its employees, its Subcontractors or their employees

shall not provide or offer to provide any campaign contribution to any member of Omnitrans in violation of California Government Code Section 84308. Further, to Contractor's knowledge, neither Contractor nor any of its employees nor its Subcontractors nor their employees has either promised or provided a campaign contribution of \$250 or more to any member of Omnitrans within 12 months prior to the award of this Contract or any subcontract of this Contract, unless an explicit statement to the contrary accompanies Contractor's bid. In no event shall gratuities (in the form of entertainment, gifts, or otherwise) be offered promised or given by Contractor, or any agent or representative of Contractor, to any official, officer or employee of Omnitrans or its Authorized Representative. Contractor or his employees shall not enter into any Contract involving not be considered a conflict under Sections 1090 et seq. and 87100 et seq. of the Government Code of the State of California. In the event Contractor, or any of its officers, partners, principals or employees are convicted of any crime arising out of, or in connection with, the work to be done or payment to be made under this Contract, this Contract in whole or any part thereof may, at the discretion of Omnitrans, be terminated for default. Any violation of the terms of this Section by Contractor may be considered a default of the Contract by Omnitrans and may result in termination of same pursuant to applicable provisions of this Contract. In the event of such a termination, Omnitrans shall be entitled to pursue the same remedies against Contractor as it could pursue in the event of a breach of the Contract by Contractor. Rights and remedies provided to Omnitrans by this Section are in addition to any additional rights and remedies provided by law or under the Contract services or property with a person or business prohibited from transacting such business with Omnitrans pursuant to Sections 1090 et seq. and 87100 et seq. of the Government Code of the State of California. To Contractor's knowledge, no Board member, officer, or employee of Omnitrans has any interest, whether contractual, non-contractual, financial or otherwise, in this transaction, or in the business of Contractor, unless an explicit statement to the contrary accompanies Contractor's bid. If any such transaction comes to the knowledge of Contractor at any time, a full and complete disclosure of such information shall be made to Omnitrans, even if such interest would

25. INDEPENDENT CONTRACTOR

- a. Contractor, and its Subcontractors and Suppliers of any tier, are independent Contractors, and nothing in this Contract shall be construed to create the relationship of agent, servant, employee, partnership, joint venture, or other association as between Contractor and Omnitrans. The employees and agents of one party shall not be, or be construed to be, the employees or agents of the other party for any purpose whatsoever.
- b. Contractor, as an independent Contractor, shall have responsibility for and control over the details and means for performing the Work, provided that Contractor is in compliance with the terms of this Contract. Anything in this Contract that may appear to give Omnitrans the right to direct Contractor as to the details of the performance of the Work, or to exercise a measure of control over Contractor, shall mean that Contractor shall follow the desires of Omnitrans only as to the intended results of the Work.

26. COMPENSATION AND BENEFITS

Contractor shall be solely liable and responsible for providing all compensation and benefits to,

or on behalf of, all persons performing Work pursuant to this Contract. Omnitrans will have no liability or responsibility for the payment of any salaries, wages, unemployment benefits, disability benefits, Federal, State, or local taxes, or other compensation, benefits, or taxes for any personnel provided by or on behalf of Contractor.

27. WORKERS' COMPENSATION INSURANCE AND LIABILITY

If Contractor employs any person to perform work in connection with this Contract, Contractor shall procure and maintain at all times during the performance of such work Workers' Compensation Insurance in conformance with the laws of the State of California and Federal laws where applicable. Employers' Liability Insurance shall not be less than \$1,000,000 per accident or disease. Prior to execution of this Contract by any such employee, Contractor shall deliver to Omnitrans a Certificate of Insurance that shall stipulate that 30 days' advance written notice of cancellation, non-renewal or reduction in limits shall be given to Omnitrans

28. CONTRACTOR'S REPRESENTATIVE, ORGANIZATION AND PERSONNEL

Before starting any Work, the Contractor shall submit for Engineer review and acceptance, an organization chart showing the proposed organization established by the Contractor for the performance of the Work, including:

- a. Lines of authority, responsibility, and communication;
- b. Office organizations, if any; and
- c. Names, titles, and functions of all the Contractor's key personnel.

29. SUPERINTENDENT

- a. The Contractor shall designate and keep a competent superintendent on the work at all times during its progress. The superintendent will be the Contractor's representative at the site and shall have authority to act on behalf of the Contractor. Qualifications and experience shall include:
 - 1) Demonstrated ability to work safely and supervise individuals in safe work.
 - 2) Previous experience supervising and planning work activities of foremen and crews.
 - 3) Ability to read and understand construction plans.
- b. The Superintendent must be:
 - a. Able to respond immediately to emergency or problem calls, 7 days a week, 24 hours a day.
- c. The Superintendent shall manage and directly oversee the safety, condition, and quality of work that has been modified by the Contractor and shall direct corrective and maintenance measures to keep the site operating safely.

30. CHANGE IN CONTRACTOR'S REPRESENTATIVE AND KEY PERSONNEL

The Contractor shall secure the prior written acceptance of Engineer for any change or reassignment of the Contractor's Representative(s) and other key personnel, submitting written documentation of the new individuals' qualifications. The Contractor shall not reassign key personnel to other projects until a satisfactory replacement has been approved by Engineer.

31. REMOVAL OF CONTRACTOR PERSONNEL

Engineer may require the Contractor to remove any person assigned by the Contractor or by any Subcontractor or Supplier from the Project performing on the Project, if the Engineer considers such removal in the best interest of Omnitrans and the Work. The Engineer's decision to require Contractor to remove any Contractor personnel, including Contractor's Representative, shall be final and binding on the Contractor. Upon such direction, Contractor shall remove the person(s) and resolve all employment or contractual issues at no cost or expense to, and shall fully indemnify, Omnitrans.

32. TRENCHES

- a. Trenches Five Feet or More in Depth. The Contractor shall submit to Omnitrans, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of any trench or trenches five feet or more in depth. If the plan varies from shoring system standards, the plan shall be prepared by a registered civil or structural engineer. The plan shall not be less effective than the shoring, bracing, sloping, or other provisions of the Construction Safety Orders, as defined in the California Code of Regulations.
- b. Excavations Deeper than Four Feet. If work under this Contract involves digging trenches or other excavation that extends deeper than four feet below the surface, Contractor shall promptly, and before the following conditions are disturbed, notify Omnitrans, in writing, of any:
 - 1) Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.
 - 2) Subsurface or latent physical conditions at the Site differing from those indicated.
 - 3) Unknown physical conditions at the Site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

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

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

33. SANITARY FACILITIES

Contractor shall provide sanitary temporary toilet buildings for the use of all workers. All toilets shall comply with local codes and ordinances. Toilets shall be kept supplied with toilet paper, hand sanitizers and shall have workable door fasteners. Toilets shall be serviced no less than once weekly and shall be present in a quantity of not less than 1 per 20 workers as required by CAL-OSHA regulation. The toilets shall be maintained in a sanitary condition at all times. Use of toilet facilities in The Work under construction shall not be permitted. Any other Sanitary Facilities required by CAL-OSHA shall be the responsibility of the Contractor.

34. AIR POLLUTION CONTROL

Contractor shall comply with all air pollution control rules, regulations, ordinances and statutes. All containers of paint, thinner, curing compound, solvent or liquid asphalt shall be labeled to indicate that the contents fully comply with the applicable material requirements.

35. CLEAN UP

Contractor at all times shall keep premises free from debris such as waste, rubbish, and excess materials and equipment. Contractor shall not store debris under, in, or about the premises. Upon completion of Work, Contractor shall clean the interior and exterior of the building or improvement including fixtures, equipment, walls, floors, ceilings, roofs, window sills and ledges, horizontal projections, and any areas where debris has collected so surfaces are free from foreign material or discoloration. Contractor shall clean and polish all glass, plumbing fixtures, and finish hardware and similar finish surfaces and equipment and Contractor shall also remove temporary fencing, barricades, planking and construction toilet and similar temporary facilities from Site. Contractor shall also clean all buildings, asphalt and concrete areas to the degree necessary to remove oil, grease, fuel, or other stains caused by Contractor operations or equipment.

Contractor shall fully clean up the Site at the completion of the Work. If the Contractor fails to immediately clean up at the completion of the Work, Omnitrans may do so and the cost of such clean up shall be charged back to the Contractor.

36. OCCUPANCY

Omnitrans reserves the right to occupy or utilize any portion of the Work at any time before completion, and such occupancy or use shall not constitute Acceptance of any part of Work covered by this Contract. This use shall not relieve the Contractor of its responsibilities under the Contract.

37. STATE LICENSE BOARD NOTICE

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 (4) years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within ten (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.

38. WAIVER

No provision of these Contract Documents shall be deemed waived by either party unless such waiver shall be expressly specified in writing, regardless of the actions or inaction of the parties.

39. MISCELLANEOUS

These Contract Documents shall be interpreted in accordance with the laws of the State of California. If any action is brought to interpret or enforce any term of these Contract Documents, the action shall be brought in a state or federal court situated in the County of San Bernardino, State of California.

40. INTEGRATION

No oral order, objection, direction, claim or notice by any party or person shall affect or modify any of the terms or obligations contained in the IFB. The IFB represents the entire agreement of Omnitrans and the Contractor.

41. SCHEDULE OF WORK

- a. Normal hours of work shall be between the hours of 7:00 a.m. and 6:00 p.m. Other hours, such as weekends and holidays, are permissible provided prior authorization has been granted by Omnitrans, Project Manager (s).
- b. Contractor shall submit a Schedule of Work to Omnitrans' Project Manager as follows:
 - 1) Submit within two (2) days after the Notice to Proceed date.
 - 2) Show all major elements of the work and their duration and interrelationships; showing the proposed dates of commencement and completion.
 - 3) All work must be completed by December 31, 2018.
 - 4) Submit a conceptual schedule with bid.
3. If any activity falls behind schedule, Contractor shall regain the time lost at its own cost and expense.

42. EXAMINATION OF WORK SITE

Bidder shall visit and become acquainted with the work site and the conditions thereof to fully understand the scope of work, difficulties and restrictions attending the execution of the work under contract.

43. OBSTRUCTIONS

The Contractor shall remove and dispose of all structures, or other obstructions of any character necessary to accommodate the work. Where such obstructions consist of improvements not required by law to be removed by Omnitrans, improvements shall be removed, maintained, and permanently replaced by the Contractor at his expense except as otherwise specifically provided in the Contract.

44. QUALITY OF THE WORK

a. AUTHORITY OF THE DIRECTOR OF MAINTENANCE

The Planning Manager, and/or his designee, shall decide any and all questions which may arise as to the interpretation of the plans and specifications and shall have authority to disapprove or reject materials and equipment furnished and work performed which, in his opinion, is not in accordance with the Contract.

b. SUPPLEMENTAL DRAWINGS

- 1) The plans may be supplemented by such drawings as are necessary to better define the work. All such drawings delivered to the Contractor by the Planning Manager shall be deemed written instructions to the Contractor. If the Contractor believes that any supplemental drawings call for changes in the work for which the contract amount or time for completion should be changed, he shall not proceed with the changes in the work so called for and shall within seven days of the receipt of the supplemental drawings notify the Project Manager in writing of his estimate of the changes in the contract amount and time for completion he believes to be appropriate.
- 2) No payment for changes in the work will be made and no change in the time for completion by reason of changes in the work will be made, unless the changes are covered by a written change order approved by Omnitrans in advance of the Contractor's proceeding with the changed work.

c. CONFORMITY WITH CONTRACT DOCUMENTS

- 1) The work shall conform to the lines, grades, dimensions, tolerances, and material and equipment requirements shown on the plans or set forth in the specifications. Although measurement, sampling, and testing may be considered evidence as to such conformity, the Project Manager shall be the sole judge as to whether the work or materials deviate from the plans and specifications, and his decision as to any allowable deviations therefore shall be final.
- 2) If specific lines, grades, and dimensions are not shown on plans, those furnished by the Project Manager shall govern.

d. MANUFACTURER'S INSTRUCTIONS

All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier, or distributor, except as otherwise specifically provided in the Contract.

45. SUPERVISION AND SUPERINTENDENCE

- a. The Contractor shall supervise and direct the work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the Contract. The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction, but the Contractor shall not be solely responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence, or procedure of construction which is indicated in and required by the Contract except as otherwise provided.
- b. The Contractor shall be responsible to see that the completed work complies with the Contract.
- c. The Contractor shall designate and keep a competent superintendent on the work at all times during its progress who shall not be replaced without written notice to the Project Manager. The superintendent will be the Contractor's representative at the site and shall have authority to act on behalf of the Contractor. All communications given to the superintendent shall be as binding as if given to the Contractor. During periods when the work is suspended, the Contractor shall make appropriate arrangements for any emergency work, which may be required.
- d. Whenever the superintendent is not present on any particular part of the work where the Project Manager may desire to inform the Contractor relative to interpretation of the plans and specifications or to disapproval or rejection of materials or work performed, the Project Manager may so inform the foreman or other worker in charge of the particular part of the work in reference to which the information is given. Information so given shall be as binding as if given to the superintendent.
- e. All equipment, materials, and supplies to be incorporated in the work shall be new, unless otherwise specified. All equipment, materials, and supplies shall be produced in a good and workmanlike manner. When the quality of a material, process, or article is not specifically set forth in the plans and specifications, the best available quality of the material, process, or article shall be provided.

46. CONTRACTOR'S RESPONSIBILITY FOR THE WORK

- a. In the event any hazardous materials, including but not limited to asbestos, are utilized in construction or hazardous materials are otherwise encountered during construction, the Contractor shall take all appropriate precautions to protect persons and property and shall comply with all applicable regulations for the installation and handling of such hazardous materials. The Contractor is solely responsible for protection of persons and property that could be affected by construction and the Contractor's handling of such materials.
- b. Until the acceptance of the work, the Contractor shall have the responsible charge and care of the work and of the materials to be used therein (including materials for which he has received partial payment or materials which have been furnished by the Omnitrans) and shall bear the risk of injury, loss, or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work.

- c. The Contractor shall rebuild, repair, restore, and make good all injuries, losses, or damages to any portion of the work or the materials occasioned by any cause before its completion and acceptance and shall bear the expense thereof. Where necessary to protect the work or materials from damage, the Contractor shall, at his expense, provide suitable drainage and erect such temporary structures as are necessary to protect the work or materials from damage. The suspension of the work or the granting of an extension of time from any cause whatever shall not relieve the Contractor of his responsibility for the work and materials as herein specified.
- d. In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without special instructions or authorizations, shall act at his discretion to prevent such threatened loss or injury.
- e. Notwithstanding the foregoing provisions of this clause, the Contractor shall not be responsible for the cost of repairing or restoring damage to the work, which damage is determined to have been proximately caused by an Act of God, in excess of 5 percent of the contracted amount, provided that the work damaged is built in accordance with accepted and applicable building standards and the plans and specifications. For the purposes of this paragraph, "Acts of God" shall include the following occurrence or conditions and effect: earthquakes in excess of a magnitude of 3.5 on the Richter scale.

47. PRESERVATION OF PROPERTY

- a. The Contractor shall exercise due care to avoid injury to existing improvements or facilities, utility facilities, adjacent property, and trees and shrubbery that are not to be removed.
- b. All trees, shrubbery, and landscaping that are not to be removed, and pole lines, fences, signs, survey markers and monuments, buildings and structures, conduits, pipelines under or above ground, sewer and waterlines, all highway or street facilities, and any other improvements or facilities within or adjacent to the work shall be protected from injury or damage, and the Contractor shall provide and install suitable safeguards to protect such objects from injury or damage. If such objects are injured or damaged by reason of the Contractor's operation, they shall be replaced or restored at the Contractor's expense to a condition as good as when the Contractor entered upon the work or as good as required by the plans and specifications if any such objects are a part of the work being performed.
- c. The fact that any such pipe or other underground facility is not shown on the plans shall not relieve the Contractor of his responsibility under this clause.
- d. In addition to any requirements imposed by law, the Contractor shall shore up, brace, underpin, and protect as may be necessary, all foundations and other parts of all existing structures adjacent to and adjoining the site of the work which are in any way affected by the excavations or other operations connected with the performance of the work. Whenever any notice is required to be given by Omnitrans or the Contractor to any adjacent or adjoining landowner or other party before commencement of any work, such notice shall be given by the Contractor.
- e. In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without special instructions or authorizations, shall act at his discretion to prevent such threatened loss or injury.

48. REGIONAL NOTIFICATION CENTER CONTACT

- a. Contractor, except in an emergency, shall contact the appropriate regional notification center at least two working days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the Owner, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and carried out by the Contractor unless such an inquiry identification number has been assigned to the Contractor or any subcontractor of the Contractor and Omnitrans has been given the identification number by the Contractor.
- b. Emergency shall be defined as a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage (Government Code Section 4216).
- c. ~~Subsurface installation means any underground pipeline, conduit, duct, wire, or other structure operated or maintained in or across a public street or public right-of-way (Government Code Section 4216).~~

49. SAFETY

- a. In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work, and the Contractor shall fully comply with all state, federal and other laws, rules, regulations, and orders relating to safety of workers and all others.
- b. The right of the Omnitrans to conduct construction review or observation of the Contractor's performance will not include review or observation of the adequacy of the Contractor's safety measures in, on, or near the construction site.
- 3. Omnitrans reserves the right to correct unsafe practices by the Contractor's employees, or to stop work until the Contractor makes the necessary corrections.
- d. **Smoking**
Omnitrans uses designated areas for smoking. Smoking is not allowed at any time in the bus yard, on or in any buildings, or by the entrances to any buildings. Smoking by employees of the Contractor, or sub-Contractors, shall not create a hazardous condition for themselves, co-workers, or employees and property of Omnitrans.
- e. **Eye Protection**
 - 1) Per Omnitrans eye protection policy, ANSI Z87 approved eye protection shall be worn by all persons while conducting business outside the boundaries of the established "green zone". The policy also requires that eye protection be utilized if hazardous work is being conducted within the "green zone". The Contractor shall ensure that all of its employees have been provided eye protection that meets the requirement.

- 2) The Project Manager, or his designee, reserves the right to stop the Contractor's work in the event that a Contractor employee is in violation, and that work will remain stopped until the violation is corrected.

f. Vests

- 1) Contractors and their employees working or performing services in outside work zones shall wear ANSI Class 2 Safety Vests.
- 2) Safety Vests are not required while in designated, marked with painted green borders Safety Zones on Agency property or while on sidewalks, curbs, or raised pavement.

g. Hazardous Materials

- 1) Contractor shall perform all work in a clean, safe and professional manner, causing no hazards to Omnitrans staff, facility the environment or Contractors service personnel.
- 2) All hazardous waste shall be handled, collected, stored and disposed of in accordance with federal, state and local environmental compliance regulations.
- 3) Coordination of hazardous waste collection, storage, and disposal shall be made through the Omnitrans' Facility Manager, or his designee.

50. WARRANTY OF TITLE

No materials, supplies, or equipment for the work under this contract shall be purchased subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest therein or any part thereof is retained by the seller or supplier. The Contractor warrants clear and good title to all materials, supplies, and equipment installed and incorporated in the work and agrees upon completion of all work to deliver the premises, together with all improvements and appurtenances constructed or placed thereon by him, to Omnitrans free from any claims, liens, encumbrances, or charges and further agrees that neither he nor any person, firm, or corporation furnishing any material or labor for any work covered by the contract shall have any right to a lien upon the premises or any improvement or appurtenance thereon, provided that this shall not preclude the Contractor from installing metering devices or other equipment of utility companies or of municipalities, the title of which is commonly retained by the utility company or the municipality. Nothing contained in this clause, however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection or any right under any law permitting such persons to look to funds due the Contractor in the hands of Omnitrans. The provisions of this clause shall be inserted in all subcontracts and material contracts, and notices of its provision shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

51. PROPERTY RIGHTS IN MATERIALS

- a. Nothing in the contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the work or the soil, or after payment has been made for materials delivered to the site of the work, or stored subject to or under the control of Omnitrans. All such materials shall become the property of Omnitrans upon being so attached or affixed or upon payment for

materials delivered to the site of the work or stored subject to or under the control of Omnitrans.

- b. Soil, stone, gravel, and other materials found at the site of the work and which conform to the plans and specifications for incorporation into the work may be used in the work. No other use shall be made of such materials except as may be otherwise described in the plans and specifications.

52. **MUTUAL RESPONSIBILITY OF CONTRACTORS**

- a. Nothing in the contract shall be interpreted as granting to the Contractor exclusive occupancy of the site of the project. The Contractor must ascertain to his own satisfaction the scope of the project and the nature of any other contracts that have been or may be awarded by Omnitrans in the construction of the project, to the end that the Contractor may perform this contract in the light of such other contracts, if any.
- b. The Contractor shall not cause any unnecessary hindrance or delay to any other Contractor working on the project. If the performance of any contract for the project is likely to be interfered with by the simultaneous performance of some other contract or contracts, the Project Manager shall decide which Contractor shall cease work temporarily and which Contractor shall continue or whether the work under the contracts can be coordinated so that the Contractors may proceed simultaneously. On all questions concerning conflicting interest of Contractors performing related work, the decision of the Project Manager shall be binding upon all Contractors concerned and Omnitrans, the Project Manager, and their Contractors shall not be responsible for any damages suffered or extra costs incurred by the Contractor resulting directly or indirectly from the award or performance or attempted performance of any other contract or contracts on the project or caused by a decision or omission of the Project Manager respecting the order of precedence in the performance of the contracts.
- c. If through acts of neglect on the part of the Contractor, any other Contractor or any subcontractor shall suffer loss or damage on the work, the Contractor agrees to settle with such other Contractor or subcontractor by agreement or arbitration, if such other Contractor or subcontractor will so settle. If such other Contractor or subcontractor shall assert any claim against Omnitrans, the Project Manager, or their Contractors or any of their directors, officers, employees, or agents on account of any damage alleged to have been so sustained, Omnitrans shall notify the Contractor who shall hold harmless, indemnify, and defend Omnitrans, the Project Manager, and their Contractors, and each of their directors, officers, employees, and agents against any such claim, including all attorneys' fees and any other costs incurred by the indemnified parties relative to any such claim.

53. **ASSIGNMENT OF ANTI-TRUST ACTIONS**

- a. In entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment

shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

- b. In submitting a bid, the bidder offers and agrees that if the bid is accepted, it will assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the awarding body pursuant to the bid. Such assignment shall be made and become effective at the time the awarding body tenders final payment to the bidder.

54. EXISTING CONDITIONS

- a. Drawings, if any, show existing conditions as supposed or believed. Drawings are based on the best evidence and information available, but no warranty is thereby expressed or implied that such conditions actually exist.
- b. Omnitrans and any of its Contractors shall not be liable for any loss sustained by Contractor as a result of any variance between existing conditions as indicated on the plans and the actual conditions revealed during the progress of the work, provided that the Contractor should have reasonably known of or identified the existing condition.

55. WARRANTY OF SCOPE OF WORK AND LUMP SUM PRICING

- a. Contractor represents and warrants that in setting the Lump Sum Pricing herein, that:
 - 1) Contractor has done so after a thorough review of the description of work, plans, drawings and specifications;
 - 2) Contractor deems that the aforementioned documents are sufficiently complete to enable Contractor to establish the Lump Sum Pricing set forth herein;
 - 3) Contractor deems the contract price is adequate to provide all the necessary labor, service, equipment or material to complete the work as stated herein, according to industry standards and good workmanship, and within the contract time set forth herein.
- b. Contractor acknowledges that except for adjustments in the Lump Sum Pricing by change orders, Contractor shall build the project in conformance to the contract documents and Omnitrans shall in no event be chargeable for more than the Lump Sum Pricing.

56. OBSERVATION OF WORK BY PROJECT MANAGER

- a. The Project Manager, shall at all times have access to the work during construction and shall be furnished with every reasonable facility for ascertaining full knowledge respecting the progress, workmanship, and character of materials and equipment used and employed in the work.
- b. Whenever the Contractor varies the normal period during which work or any portion of it is carried on each day, he shall give timely notice to the Project Manager so that the Project Manager may be present to observe the work in progress. If the Contractor fails

to give such timely notice, any work done in the absence of the Project Manager will be subject to rejection.

- c. The Contractor shall give timely notice to the Project Manager in advance of backfilling or otherwise covering any part of the work so that the Director of Maintenance may observe such part of the work before it is concealed.
- d. The observation, if any, by the Project Manager of the work shall not relieve the Contractor of any of his obligations to fulfill the contract as prescribed. Defective work shall be made good, and materials and equipment furnished and work performed which is not in accordance with the Contract documents may be rejected notwithstanding the fact that such materials, equipment, and work have been previously observed by the Project Manager or that payment therefore has been included in an estimate for payment.

57. REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

- a. Any work which does not conform to the requirements of the Contract documents shall be remedied or removed and replaced by the Contractor, together with any other work which may be displaced in so doing, and no compensation or extension of time will be allowed him for such removal, replacement, or remedial work. All nonconforming materials shall be immediately removed from the site.
- b. Costs for re-testing and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor and the Contract Price will be adjusted by Change Order.
- c. Any work done beyond the lines and grades shown on the plans or established by the Project Manager or any changes in, additions to, or deductions from the work done without written authority will be considered as unauthorized and will not be paid for. Work so done may be ordered remedied, removed, or replaced at the Contractor's expense.
- d. Upon failure on the part of the Contractor to comply promptly with any order of the Project Manager made under the provisions of this Contract, the Project Manager shall have authority to cause non-conforming materials, rejected work, or unauthorized work to be remedied, removed, or replaced at the Contractor's expense and to deduct the costs from any moneys due or to become due to the Contractor.

58. USE OF COMPLETED PORTIONS

- a. When the Work or any portion of it is sufficiently complete to be utilized or placed into service, Omnitrans shall have the right upon written notification to the Contractor to utilize such portions of the work and to place the operable portions into service and to operate same.
- b. Upon said notice and commencement of utilization or operation by Omnitrans, the Contractor shall be relieved of the duty of maintaining the portions so utilized or placed into operation; provided, however, that nothing in this article shall be construed as relieving the Contractor of the full responsibility for completing the work in its entirety, for making good defective work and materials, for protecting the work from damage, and for being responsible for damage and for the work as set forth in the Contract nor shall such action by Omnitrans be deemed completion and acceptance, and such action

shall not relieve the Contractor, his sureties, or insurers of the provisions of Contractor's insurance, indemnity, and guarantees.

59. PROJECT COMPLETION

Project completion shall be defined as the date on which it is agreed by Omnitrans and its representatives, Contractor and permitting agencies that the project is accepted.

60. OBLIGATION TO CONTINUE WORK

Contractor, in the event of any dispute or controversy with Omnitrans over any matter whatsoever, shall not cause any delay or cessation in or of Contractor's work, but shall proceed under the contract with the performance of the work required thereby.

61. SUSPENSION OF WORK BY OMNITRANS

- a. Omnitrans may, without cause, order Contractor in writing to suspend, delay, or interrupt the work in whole or in part for such period of time as Omnitrans may determine.
- b. An adjustment shall be made for increases in the cost of performance of the contract, including profit on the increased cost of performance caused by suspension, delay or interruption.
- c. No adjustment shall be made to the extent that:
 - 1) Performance is, was or would have been so suspended, delayed or interrupted by another cause for which Contractor is responsible;
 - 2) Force Majeure;
 - 3) An equitable adjustment was made under another provision of this contract.
- d. Any such petitions for adjustments are subject to audit, Federal Cost Principles, and any other provision of this contract.

62. GENERAL REQUIREMENTS

- a. Contractor to field verify all areas for appropriate square footages, linear feet, etc.
- b. It is the Contractor's responsibility to coordinate the Work so as to minimize conflicts and optimize efficiency.
- c. If and when it should be necessary for the Contractor to impact day-to-day operations of Omnitrans functions in order to pursue the Work, the Contractor shall furnish adequate notice to Omnitrans and coordinate the means and timing to avoid, minimize, or circumvent such impacts. Omnitrans reserves the right to assess and anticipate such impacts and the right to stop or postpone the Work until a mutually satisfactory time and means can be agreed upon.
- d. The Contractor shall not stop or park any of his vehicles in such a manner to prevent the timely entrance and exit of Omnitrans coaches from the parking area. Our customers

expect prompt service, and our service is scheduled on a tight timeline, and we will not accept any delays.

- e. All Work is to comply with all applicable state and city code requirements.
- f. The Contractor shall ensure that all of his operations strictly adhere to all Federal, State, and Local safety and environmental laws and regulations. Omnitrans, in accordance with the dual employer law, reserves the right to correct unsafe practices by the Contractor's employees, or stop work until the Contractor makes the appropriate corrections.
- g. The Contractor shall arrange for the disposal of all materials generated in the performance of this contract. No trash or waste of any kind that is generated by the Contractor shall be disposed of in any receptacle that is in place for the use of our employees. Any trash or waste that must be disposed of by Omnitrans due to the Contractor's failure to provide for proper disposal will result in a liquidated damage to the Contractor equal to the cost of disposal plus the labor costs associated with making those arrangements.
- h. Contractor to repair any damage to irrigation or landscaping as a result of construction activity.

63. **WARRANTY**

- a. Contractor warrants all Work under the Contract (which for purposes of this Section shall be deemed to include unauthorized work which has not been removed and any non-conforming materials incorporated into the Work) to be of good quality and free from any defective or faulty material and workmanship.
- b. Contractor agrees that for a period of one year (or the period of time specified elsewhere in the Contract or in any guarantee or warranty provided by any manufacturer or supplier of equipment or materials incorporated into the Work, whichever is later) after the date of final acceptance, Contractor shall within ten (10) days after being notified in writing by Omnitrans of any defect in the Work or non-conformance of the Work to the Contract, commence and prosecute with due diligence all Work necessary to fulfill the terms of the warranty at its sole cost and expense.
- c. Contractor shall act sooner as requested by Omnitrans in response to an emergency.
- d. In addition, Contractor shall, at its sole cost and expense, repair and replace any portions of the Work (or work of other contractors) damaged by its defective Work or which becomes damaged in the course of repairing or replacing defective Work. For any Work so corrected, Contractor's obligation hereunder to correct defective Work shall be reinstated for an additional one-year period, commencing with the date of acceptance of such corrected Work. Contractor shall perform such tests as Omnitrans may require to verify that any corrective actions, including, without limitation, redesign, repairs, and replacements comply with the requirements of the Contract. All costs associated with such corrective actions and testing, including the removal, replacement, and reinstitution of equipment and materials necessary to gain access, shall be the sole responsibility of Contractor.

- e. All warranties and guarantees of subcontractors, suppliers and manufacturers with respect to any portion of the Work, whether express or implied, are deemed to be obtained by Contractor for the benefit of Omnitrans, regardless of whether or not such warranties and guarantees have been transferred or assigned to Omnitrans by separate agreement and Contractor agrees to enforce such warranties and guarantees, if necessary, on behalf of Omnitrans.
- f. In the event that Contractor fails to perform its obligations under this Section, or under any other warranty or guaranty under this Contract, to the reasonable satisfaction of Omnitrans, Omnitrans shall have the right to correct and replace any defective or non-conforming Work and any work damaged by such work or the replacement or correction thereof at Contractor's sole expense. Contractor shall be obligated to fully reimburse Omnitrans for any expenses incurred hereunder upon demand.

64. **LIQUIDATED DAMAGES**

Failure of the Contractor to complete the Work within the time allowed will result in damages being sustained by Omnitrans. Such damages are, and will continue to be, impracticable and extremely difficult to determine. For each consecutive calendar day in excess of the time specified for completion of the Work, as adjusted in accordance with the Schedule of Values, the Contractor shall pay Omnitrans, or have withheld from monies due it, the sum of \$0 per day as delay damages, unless otherwise specified.

Execution of the Contract shall constitute agreement by Omnitrans and Contractor that **\$0 per day** is the minimum value of the costs and actual damage caused by the failure of the Contractor to complete the Work within the allotted time. Such sum is liquidated damages for delay and shall not be construed as a penalty, and may be deducted from payment due the Contractor if such delay occurs.

65. PROSECUTION AND COMPLETION OF WORK

Contractor shall commence performance of the Work on the date specified in the formal Notice to Proceed (NTP) issued to the Contractor. Contractor shall furnish sufficient labor (including extra crews) and facilities and shall work such hours (including extra shifts and overtime operations) so as to prosecute the Work to completion in accordance with the following project milestones:

- Substantial Completion ____ calendar days. ____ days to final completion.

The Contractor is not authorized to perform any work unless it receives a Notice-to Proceed written authorization to begin.

66. HOLIDAYS

Omnitrans' facility is closed for the following non-working holidays:

Memorial Day	May 28, 2018
Fourth of July	July 4, 2018
Labor Day	September 3, 2018
Thanksgiving	November 22, 2018
Christmas	December 25, 2018
New Year's	January 1, 2019

67. PRE-CONSTRUCTION SUBMITTALS

Upon award of a contract, the following shall be submitted prior to or on the day of the pre-construction meeting for Omnitrans' review and comment. The Contractor's complete submittal, due after NTP, shall not substantially differ from the information provided in these documents submitted by the Contractor.

- a. Preliminary Project Schedule indicating proposed approach to phased construction where required (supplement with supporting plans and/or diagrams as required)
- b. Baseline Schedule
- c. Schedule of Values
- d. Submittal Schedule
- e. Location of field office, storage areas, and layouts
- f. Site Specific Health and Safety Plan
- g. Project Specific Quality Control Plan

h. Contractor's Key Personnel (Including Emergency Contact information)

68. COOPERATION WITH OMNITRANS DURING BUSINESS OPERATIONS

a. Contractor Interface with Omnitrans Bus Operation

- 1) It is expected that Omnitrans will cooperate with Contractor to the extent that the Work may be handled in an efficient manner, but Contractor shall have no claim for damage or extra compensation in the event its Work is delayed by Omnitrans bus operations.
- 2) Contractor shall perform its Work in such manner and at such times as to not endanger or interfere with the safe and timely operation of Omnitrans' buses at or in the vicinity of the Work.
- 3) Any proposed plan by Contractor that may cause infringement of clearances items A.1 and A.2 above due to Contractor's operations shall be submitted to the Construction Manager (CM) in writing 30 Days in advance and such Work shall not begin until notified by the Engineer that such a plan has been approved by Omnitrans. No damage or extra compensation will be allowed in the event the Contractor's Work is delayed pending Omnitrans approval or if the Plan is rejected.
- 4) Contractor shall give a 30 Day written notice to the Engineer before commencing any Work in connection with construction or other activities that affect Omnitrans route safety and performance and its customer's safety and accessibility. New Year's January 1, 2019

69. PROTECTION OF PROPERTY AND RESTORATION OF EXISTING IMPROVEMENTS

The Contractor shall be responsible for the protection of public and private property adjacent to the Work and shall exercise due caution to avoid damage to such property.

The Contractor shall repair or replace existing improvements within the right-of way or temporary construction easement which are not designated for removal (e.g. curbs, sidewalks driveways, fences, walls, signs, billboards, utility installations, monitoring wells, pavement, structures, landscaping, irrigations and etc.) which are damaged or removed as a result of its operations. When a portion of a sprinkler system within the right-of-way must be removed, the remaining lines shall be capped and remaining system shall be kept functional and not cause new damages. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

The Contractor, during the progress of the Work, shall maintain existing or temporary street lightings and traffic signal systems. If any damage to existing or temporary street lightings and traffic signal system occur, the Contractor shall immediately notify the Engineer and arrange for immediate repair and restoration of service. The Contractor shall commence repairs or replacements as soon as possible and in no case later than 4 hours after damaging the system or receiving approval of the equipment and materials by the Engineer, whichever takes longer. A licensed electrical contractor shall make all temporary and permanent repairs.

Trees, lawns, and shrubbery that are not to be removed shall be protected from damage or injury. If damaged or removed due to Contractor's operations, they shall be restored or replaced in as nearly the original condition and location as is reasonably possible. Lawns shall be reseeded and covered with suitable mulch.

The Contractor shall give reasonable notice of at least 30 Days to occupants or owners of adjacent property to permit them to salvage or relocate plants, trees, fences, sprinklers, and other improvements, within the right-of-way which are designated for removal and would be destroyed because of the Work.

All costs to the Contractor for protecting, removing, and restoring existing improvements shall be included in the Bid.

70. TRAFFIC AND ACCESS

The Contractor's operations shall cause no unnecessary inconvenience for bus maintenance and storage. The Contractor shall be afforded a work zone within which to complete the majority of the work. These areas are indicated on the plans and shall be separated from the Agency's operations by k-rail. Some work will be performed within the operational area of the yard and shop. Therefore, the access rights of the Agency shall be considered at all times. Unless otherwise authorized in writing by the Engineer prior to start of Work, traffic shall be permitted to pass through the Work, or an approved detour shall be provided by the Contractor at its own cost. It is also recognized that improvements within the bus yard will impact parking areas. The Contractor shall present a plan to mitigate the impact of construction. The Agency shall have access to required parking at all times which may result in phasing of the work. The Contractor will not be entitled to damages, additional compensation, or time extension resulting from the need to phase construction.

Safe and adequate pedestrian and vehicular access shall be provided and maintained to: fire hydrants; schools and parking lots; residences; and establishment of similar in nature. Access to these facilities shall be continuous and unobstructed unless otherwise authorized in writing by the Engineer prior to start of Work.

Grading operations, excavation, and fill construction shall be conducted by the Contractor in a manner to provide a reasonably satisfactory surface for traffic. When these activities completed, the roadbed surface shall be brought to a smooth, even condition satisfactory for property access. The use of plating is encouraged. If used, plating shall be bermed with asphalt or other material to eliminate movement. Plating shall be bedded to reduce noise under vehicle loading.

Unless otherwise authorized in writing by the Engineer prior to start of Work, work shall be performed in only that portion of the bus access roadway at one time that still permits safe access for buses. The access portion shall be kept open and unobstructed until the opposite side is ready for use.

a. Restrictions

- 1) No work during special events or holidays, without prior approval of the Agency
- 2) Access Closures – Allowed by special permission only, determined on a case/day by case/day basis, traffic control plan required.

b. Notification

Advance Notification – Obtain Agency approval of closure plan a minimum 72 hours prior to proposed closure.

End of General Provisions

Omnitrans

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1 ABBREVIATIONS

OMNITRANS	San Bernardino Associated Governments
SCAQMD	South Coast Air Quality Management District

2 DEFINITIONS

The following definitions supplement other definitions provided throughout the Contract Documents:

Application for Final Payment	Contractor's application to Omnitrans for final payment submitted after Omnitrans issues a Certificate of Final Acceptance
Authorized Representative	A person, persons, or firm specifically authorized and empowered to act for or in place of a named person or entity.
Beneficial Occupancy	The taking possession of all or a portion of the Work by Omnitrans for its use or occupancy on other than a temporary or emergency basis
Certificate of Final Acceptance	Written acceptance of the Work by Omnitrans as complete.
Change	An alteration, modification, or addition to the Contract that may result in an adjustment to the Contract Price or the Contract Time.
Change Notice (CN)	A document issued by Omnitrans to the Contractor detailing a proposed Change to the Contract. After negotiation, a Change Order may result from a Change Notice.
Change Order (CO)	A Change Order (CO) is a written document issued by Omnitrans to the Contractor and signed by Omnitrans and the Contractor modifying the Contract to incorporate a Change.
Changed Work	The scope of work included in a Change Notice, Unilateral Change Notice, or Change Order.

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City	The City of San Bernardino and all associated entities thereof, including but not limited to, San Bernardino Municipal Water Department (SBMWD).
City Inspector	Designated employee or agent of the City who is charged with responsibility for code and other municipal inspections.
Claim	A written demand by one of the contracting parties submitted in accordance with the Contract provisions.
Construction Equipment	Contractor-furnished equipment required to perform the Work.
Construction Manager	Omnitrans staff who provides construction management, field engineering, testing and inspection, and other services for the Project. All communication with Omnitrans will be through the Resident Engineer (see Resident Engineer).
Construction Staging Area	Property available for use by the Contractor during the construction period for the purpose of storing materials and construction equipment, and for coordinating the Work.
Contract	Written contract executed by Omnitrans and the Contractor, which sets forth the rights and obligations of the parties in connection with the Work, and which includes the Contract Documents.
Contract Administrator	The Contracting Officer or his/her Authorized Representative who is authorized to administer the Contract on behalf of Omnitrans.
Contract Documents	All documents, Contract Plans, manuals, Specifications or modifications that collectively constitute the Contract.
Contract Plans	That part of the Contract showing construction details and the locations, character, dimensions, and details of the Work. Also referred to as Plans.
Contract Price	The Contract Price constitutes the total compensation, subject to authorized adjustments, payable to the Contractor for performance of the Work.
Contract Time	The Contract Time is the original duration of the Contract in calendar days from LNTP to Substantial Completion, plus approved Change Order adjustments.

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Contracting Officer	Omnitrans' CEO/General Manager or his/her Authorized Representative with authority to execute Contracts and Contract modifications on behalf of Omnitrans.
Contractor	The individual, firm, partnership, corporation, joint venture, or combination thereof that has entered into the Contract with Omnitrans.
Cost of Work	The sum of all direct and indirect costs that are necessarily incurred and paid by the Contractor in performance of the Work.
Days	Unless otherwise stated, "Days" shall mean calendar days. When a required submittal due date falls on an Omnitrans non-business day, submittal shall be on the next business day.
Engineering Consultant	An engineering consultant retained by Omnitrans to provide design, engineering, and other services for the Project.
Ethics Policy	An Omnitrans policy that governs the conduct of all employees, consultants/contractors, and Board members/alternates of Omnitrans and any of its organizational units.
Inspector	Omnitrans or its Authorized Representative or other governmental agencies, utilities, or interested parties assigned to make inspections or tests of the Work performed or being furnished by the Contractor.
Installation, Install	Completing assembly, erecting, or connecting materials, parts, components, supplies, and related equipment specified or required for the completion of the Work.
Limits of Work	Boundary within which the onsite elements of the Work will be performed, except utility and drainage Work in local streets and on private property.
Milestone	An established event or occurrence that is associated with the Schedule as defined in the Contract.
Mobilization	The amount paid, as identified in the Schedule of Quantities and Prices, for the Contractor to assemble crews; transport material, equipment, and other resources; arrange for Worksite access; provide flag protection; remove material and

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	equipment; and clean Worksite, which amount will be paid once for each category of Work in the Contract.
Non-Conformance Report (NCR)	Written notice from Omnitrans to the Contractor that specific Work is not in conformance with the Contract.
Notice of Award	Written confirmation of an award of a Contract by Omnitrans to a successful bidder, stating the amount of the award, the award date, and when the contract will be signed. It may also contain a notice to proceed.
Notice of Termination	Written notice from Omnitrans to the Contractor and its surety terminating the Contract, or a portion thereof, either for convenience of Omnitrans or for default due to the Contractor's failure to perform its contractual obligations.
Notice to Proceed (NTP)	Omnitrans' written authorization to proceed with all Work. NTP will initiate the Period of Performance.
Omnitrans	Project client/owner who operates the San Bernardino Transit Center bus facility.
Payment Bond	A surety bond which guarantees that the Contractor will cover payments of all obligations under the Contract, and which also guarantees against breach of Contract.
Performance Bond	A surety bond, which guarantees that the Contractor will fully perform the Contract, and guarantees against breach of Contract.
Period of Performance	Period of Performance is the duration of Work from the effective date of the Notice to Proceed (NTP) to the certified date of Substantial Completion.
Plans	That part of the Contract showing construction details and the locations, character, dimensions, and details of the Work. Also referred to as Contract Plans.
Product Data	Illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate a material, product, or system for a portion of the Work.

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Project Manager for Contractor	Individual designated and authorized by Contractor in accordance with the Section entitled Contractor's Project Manager, herein.
Project	The Work to be performed pursuant to the Contract Documents.
Project-Specific Specifications	Omnitrans specifications that are specific to the Work.
Prompt Payment to Subcontractors	Specific time periods established by law within which the Contractor must pay the undisputed amounts of their subcontractor's progress payments and release withheld retentions.
Reference Codes	Federal, State, or local governmental codes, ordinances, or regulations, or trade organization codes.
Reference Plans	Those plans incorporated by reference in the Contract.
Reference Standards	Authoritative principles, rules, models, and the like, used to determine or establish the acceptability of material, equipment, Work, procedures, or workmanship that are physically located in other documents and are incorporated into the Contract only by reference. The Reference Standards shall have the same force and effect as if their full text were physically incorporated in the Contract.
Regular Work Day	Eight (8) consecutive working hours, allowing up to one non-working hour for lunch and breaks, unless otherwise agreed to by the Contractor and Omnitrans.
Regular Work Week	Five (5) working days within a seven (7) day period.
Request for Acceptance of Work	Contractor's request for Omnitrans' Acceptance of Work; submitted by Contractor upon its determination that all Work has been completed.
Request for Change (RFC)	A written document submitted by the Contractor to Omnitrans, identifying desired revisions to the Contract.
Request for Information (RFI)	A written request to Omnitrans from the Contractor requesting clarification of or information on a portion of the Work.
Resident Engineer	An Authorized Representative of Omnitrans, with specific and limited authority as described in the Contract.

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Safety Representative	Representative of the Contractor designated to act in connection with safety inspections, meeting training, and accident investigations.
SBCTA	San Bernardino Associated Governments (SBCTA), which was the applicant agency for the permit for the generator and provided the design.
San Bernardino Transit Center (SBTC)	The multimodal transportation center located at the southwest quadrant of Rialto Avenue and E Street, San Bernardino.
Schedule of Quantities and Prices	A comprehensive listing of specific tasks together with a specific unit of measurement and a Unit Price (also known as Bid Pricing Forms).
Schedule of Values	The breakdown of the Contract Price into dollar values relating to specific components of the Work and is used as the basis for reviewing Contractor's applications for payment.
Shop Drawings	Original drawings, plans, diagrams, schedules, and other data specifically prepared and submitted to Omnitrans by the Contractor or any of its Subcontractors pursuant to the Work, showing in detail the following: • The proposed fabrication and assembly of a specific portion of the Work; and • The Installation (form, fit, and attachment details) of a specific portion of the Work Shop Drawings shall include Product Data, catalogue literature, performance and test data, and other submittals as appropriate.
Site Specific Emergency Action Plan	The emergency action plan shall be in writing, except and shall cover those designated actions employers and employees must take to ensure employee safety from fire and other emergencies.
Site Specific Illness and Injury Prevention Program	The Injury and Illness Prevention Program (IIPP) is a written workplace safety program. Title 8 of the California Code of Regulations (T8CCR) section 3203, requires every employer to develop and implement an effective IIPP. An effective IIPP improves the safety and health in your workplace and reduces costs by good management and employee

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involvement. The required Site-Specific Injury and Illness Prevention Program elements are:

1. Responsibility
2. Compliance
3. Communication
4. Hazard Assessment
5. Accident/Exposure Investigation
6. Hazard Correction
7. Training and Instruction
8. Recordkeeping

Special Conditions	Modifications, additions, or deletions to specific terms and conditions of the Contract that are exclusive to the Project.
Special Events	Events considered to be those construction activities that constitute exposing the general public to danger, inconvenience, or risk.
Specifications	The directions, provisions, requirements, and descriptions of the Work to be performed pursuant to the Project-Specific Specifications, the Contract Plans, and any other specifications or plans referenced in the Contract.
State	The State of California.
Subcontractor	Any individual, firm, partnership, corporation, joint venture, or combination thereof, other than employees of the Contractor, that enters into a Contract with the Contractor to furnish services, labor, equipment, or materials as a portion of the Work. Unless otherwise specified, Subcontractor includes a Subcontractor of any tier, and excludes Suppliers, manufacturers, and distributors.
Substantial Completion	Substantial completion of the Work or the designated portion thereof occurs when Omnitrans certifies that the Work is sufficiently complete as set forth in the Contract Documents so that Omnitrans may occupy or use the Work, or a designated portion thereof, for the use for which it is intended.
Substitution	A product, service, component, or system that the Contractor requests to use in lieu of that specified in the Contract.
Supplier	Any person, firm, partnership, corporation, joint venture, or combination thereof, other than employees of the Contractor, that furnishes a tangible product or services as a portion of the

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	Work, with services usually limited to delivery or required testing.
Surety	A company whose business is to assume responsibility for the performance or payment obligation of the Contractor.
Unilateral Change Notice (UCN)	A unilateral written directive to the Contractor issued and signed by Omnitrans ordering a Change in the Work when, in Omnitrans sole discretion, time constraints make it impractical or impossible to ascertain the total cost of the changes in the Work before Changes in the Work must commence.
Unit Price	The dollar value set by the Contractor in the Schedule of Quantities and Prices for a single, reoccurring item of Work or group of items commonly regarded as a single entity, that is inclusive of all direct and indirect costs and excluding only those costs associated with any other Unit Price.
Value Engineering Change Proposals (VECPs)	A proposal(s) submitted by the Contractor identifying areas or instances in which improvements can be made, in order to avail Omnitrans of potential cost savings.
Work	The sum total of productive and operative efforts used to generate the results specified, indicated, or implied in the Contract. Work includes all products, materials, facilities, and improvements as required by the Contract.
Working Plans	Original plans prepared by the Contractor or its Subcontractors or Suppliers, of any tier, illustrating Work required for construction that will not become an integral part of the completed Work. This includes, but is not limited to, plans for temporary structures such as decking, bulkheads, excavation supports, utility support, groundwater control, forming, and false work.
Work Site	Area within which the onsite portions of the Work will be performed, which is enclosed by the Limit of Work, and immediately surrounding streets or easements (see Contract Plans). It also includes offsite areas used in connection with the performance of the Work.

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3 SITE ACCESS

The Work Site will become available at the Notice to Proceed, unless otherwise specified. Access shall be from the driveway off Rialto Avenue which leads to the generator site. All other access requirements shall be requested by the Contractor five calendar days in advance in order to allow coordination with other entities. Contractor shall not use the main bus access lane into the transit center.

Any damage to the driveway, sidewalk, or any other facility made by the Contractor shall be repaired by the Contractor to the satisfaction of Omnitrans.

4 COMMENCEMENT OF THE WORK

Omnitrans will issue a Notice to Proceed at some time after the execution of the Contract. The Contractor is not authorized to perform any work until the Contractor has received the Notice to Proceed (NTP) from Omnitrans. Should the Contractor begin Work in advance of receiving these notices, such Work shall be considered as having been done at the Contractor's own risk. The NTP will initiate Contract Time and will specify the extent of Work that the Contractor is authorized to perform. The NTP will authorize the following activities, which must be completed within 30 calendar days of the NTP date:

1. Obtain permits, right-of-entry permits, and licenses as required for performance of the Work
2. Secure the Work Site and mobilize temporary facilities as necessary to perform Work
3. Attend Pre-Construction Conference as well as progress and coordination meetings

The following submittals must be approved by Omnitrans within 30 calendar days of the NTP date:

1. Schedule of Contract Values
2. Baseline Construction Schedule
3. Submittal Schedule
4. Health and Safety Plan
5. Emergency Response and Evacuation Plan
6. Quality Control Plan
7. Storm Water Pollution Protection Plan
8. Construction Waste Management and Disposal Plan
9. Other permits but not limited to City of San Bernardino-issued encroachment, grading, street use and haul route permits.

5 ENVIRONMENTAL

Contractor is required to comply with the following documents:

1. Draft Storm Water Pollution Prevention Program (Draft SWPPP)

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2. Environmental Compliance

Transportation and Traffic

The Contractor is required to comply with City of San Bernardino regulations to minimize and reduce construction noise. The contractor shall employ measures to minimize and reduce construction noise. Measures that will be implemented to reduce construction noise to acceptable levels include the following:

- Comply with local noise regulations and limit construction hours to the extent practicable (i.e., between the hours of 7:00 a.m. and 8:00 p.m.).
- Use available noise suppression devices and techniques, including:
- Equipping all internal combustion engine-driven equipment with mufflers, air-inlet silencers, and any other shrouds, shields, or other noise-reducing features that are in good operating condition and appropriate for the equipment (5 to 10 dB reduction possible).
- Using “quiet” models of air compressors and other stationary noise sources where such technology exists.
- Using electrically powered equipment instead of pneumatic or internal combustion-powered equipment, where feasible.
- Using noise-producing signals, including horns, whistles, alarms, and bells, for safety-warning purposes only.
- Locating stationary noise-generating equipment, construction parking, and maintenance areas as far as reasonable from sensitive receivers adjoining or near the Project Study Area.
- Prohibiting unnecessary idling of internal combustion engines (i.e., in excess of 5 minutes).
- Placing temporary soundwalls or enclosures around stationary noise-generating equipment when located near noise-sensitive areas (5 to 15 dB reduction possible).
- Ensuring that project-related public address or music systems are not audible at any adjacent receiver.
- Notifying adjacent residents in advance of construction work.

6 PERMITS AND LICENSES

The Contractor shall be fully responsible for identifying and obtaining, at its sole expense, all necessary permits and licenses required unless identified below as Omnitrans -provided for the timely prosecution of the Work as required by law.

Omnitrans will provide a copy of the current City permit for the generator to the Contractor.

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7 BUS SERVICE INTERRUPTION & DISRUPTION

- A. The Contractor shall be responsible for damages incurred by Omnitrans for any losses caused by the Contractor. Unauthorized disruptions to service which include delays due to disruption of bus operations.
- B. Contractor acknowledges and agrees that it is and will be impracticable and extremely difficult to ascertain and determine the actual amount of damages that Omnitrans will sustain; accordingly, in the event of such damages, assessments will be levied as prescribed below. The Contractor shall pay said assessments, and further agrees that Omnitrans may deduct the amount thereof from any monies due or that may become due to the Contractor under the Contract if the Contractor has not paid within seven (7) days for any damages due Omnitrans for the assessments.
- C. Contractor agrees to pay Omnitrans liquidated damages as follows:
 - 1. Omnitrans costs of \$0 working day.

8 CONTRACTOR'S MEDIA & PUBLIC INTERACTION

The Contractor shall not allow any Project-related publications, copy, photographs or electronic images to be published, displayed on the internet, or used in the Contractor's advertisements or public relations programs without prior written approval from Omnitrans.

The Contractor shall immediately refer all inquiries from the news media to Omnitrans. All contacts with the media relating to the Project shall be the exclusive duty of Omnitrans. If contacted by the news media, the Contractor and all its labor forces, including Sub-Contractors, shall refrain from any communication with the news media and contact the Construction Manager immediately.

In the event of any anticipated evening or weekend work or closures impacting businesses or residents in the vicinity of Contractor's area of work, Contractor's project manager must request Omnitrans approval in writing, at least two weeks in advance of scheduled Work if the duration of the closure or disruption is expected to be five working days or less. If the duration of the closure or disruption is expected to be greater than five days, Contractor is required to request Omnitrans approval thirty days in advance. Should the Contractor's operations require utility shut-offs, emergency road closures, etc. that could not be anticipated, the Contractor shall immediately notify Omnitrans and provide notice to the community or general public as approved by Omnitrans.

If the Contractor receives a complaint or a notice of alleged damages from a member of the public or property owner/tenant(s), the Contractor shall, but in no event later than start of the next business day, inform Omnitrans of the complaint and what action will be taken to address or alleviate the complaint. All correspondence or communications relating to a complaint, including written notes of oral conversations shall be transmitted to Omnitrans within one business day of receipt or transmission by the Contractor.

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9 CHANGES

A. Omnitrans Directed Changes

1. Omnitrans may at any time order additions, deletions, or revisions in the Work (Changes) within the general scope of the Contract. These will be initiated by a Change Notice (CN) and authorized only upon the issuance of a written Change Order (CO) or, in unusual circumstances, by the issuance of a Unilateral Change Notice (UCN). Upon receipt of any CO or UCN, the Contractor shall promptly proceed with execution of the Work.
2. Except as expressly permitted herein, no order, statement, or conduct of Omnitrans or anyone purporting to represent Omnitrans shall be treated as a Change under this Contract or entitle the Contractor to an adjustment of compensation or time of performance under this Contract. The Contractor may request the initiation of a CO by a Request for Change (RFC). Regardless of how a Change is initiated or authorized, any compensation in money or time for a Change can only be authorized by a written CO or UCN. The Contractor's records pertaining to Changes pursuant to this Section are subject to audit.
3. Changes within the general scope of the Contract may include, but are not limited to, material Changes resulting from any of the following:
 - a. Specifications, plans, and designs
 - b. Method, manner, or timing of the performance of Work
 - c. Omnitrans furnished facilities, equipment, materials, services, or Worksite
 - d. Contract milestones
 - e. Value engineering
 - f. Adding, deleting, or revising Work
4. Change Notice: A Change Notice (CN) does not authorize a Contractor to commence performance of the Changed Work. Nothing in the Contract will be construed to bind Omnitrans for acts of its employees and agents that exceed the delegation of their authority. The Contractor shall promptly notify Omnitrans in writing when it receives direction, instruction, interpretation, or determination from any source that may lead to or cause any Change in the Work. Such written notification shall be given to Omnitrans before the Contractor acts on said direction, instruction, interpretation or determination.
5. Unilateral Change Notice (UCN):
 - a. The UCN, issued by Omnitrans, shall expressly specify:
 1. The intention to treat such items as Changes;
 2. The kind, character, and limits of the Changes as far as can be ascertained by Omnitrans;
 3. The terms under which changes to the Total Contract Amount will be determined; and
 4. Payment provisions.
 - b. The UCN shall be executed by Omnitrans and transmitted to the Contractor before any Work is started on the items covered thereby. The UCN shall contain a cost limitation that cannot be exceeded without a prior written additional approval from Omnitrans. Omnitrans and the

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Contractor shall negotiate the adjustment to the Contract Amount or time of performance and, thereafter, incorporate such into a subsequently issued CO.

6. Change Order (CO)

- a. The CO shall expressly state that the change in compensation, if any, includes all amounts to which the Contractor is entitled as a result of the events giving rise to the Change Order. The execution of a Change Order by both parties shall be deemed final without reservation of rights by either party for all costs and time of performance related to the Change.
- b. For all Change Orders greater than or equal to \$200,000, a certification of conflict of interest may be required from the Contractor and all Subcontractors and Suppliers who will perform Work included in the Change Order.

In the event that the Contractor and Omnitrans are unable to agree on the amount of any Change or adjustment to be made for compensation or time, a Change Order may be issued unilaterally by Omnitrans, in which case the Contractor may challenge the CO or any aspect of the CO only by strictly following the procedures described in Article C.4 (Contractor's Change Order Proposal) of these Special Conditions. If the Contractor challenges the Change Order, the Contractor shall nonetheless proceed diligently and timely with the Work to be performed under the Contract and the CO.

B. Contractor Requested Changes

The Contractor may request additional compensation or time through a Request for Change (RFC). In order for an RFC to be considered timely, the Contractor must submit a RFC no later than 20 days after the Contractor first became aware, or should have become aware, of the event or occurrence giving rise to such request. Untimely requests are subject to denial by Omnitrans regardless of the merits of any RFC. The Contractor is not entitled to any compensation or time extension when an RFC is determined by Omnitrans to be untimely. The RFC must specify the particulars of such Change, including relevant dates and circumstances.

Any RFC that is approved by Omnitrans will be incorporated into a CN. If the RFC is denied but the Contractor believes its request was timely and has merit, the Contractor shall maintain records in accordance with Contractor's Change Order Proposal Paragraph C.4 of this Article.

Omnitrans encourages the Contractor to submit Value Engineering Change Proposals (VECPs) whenever it identifies areas or instances in which improvements can be made, in order to avail Omnitrans of potential cost savings. The Contractor and Omnitrans will share any savings in the manner described in the Project Specific Specifications Section 01 24 13 (Value Engineering Change Proposals (VECP)).

C. CONTRACTOR'S CHANGE ORDER PROPOSAL

1. If directed by Omnitrans, the Contractor shall submit a Contractor's Cost and Schedule Proposal to Omnitrans within 15 working days after receipt of a CN or UCN. The proposal shall detail price and scheduling information showing all of the cost and time ramifications of the additions, deletions, or modifications shown in the CN or UCN. If any prices or other aspects are conditional, such as orders being made by a certain date or the occurrence of a particular event at a specified

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time, the Contractor shall identify these conditions in its proposal. The components and allowed costs to be used by the Contractor in preparing the proposal shall be those set forth in this Section and shall be presented in such a manner that all cost and schedule information can be easily identified and certified upon request. The submittal shall include current cost or pricing data as described in this Section. Changes involving an item of Work covered by a Contract Unit Price will be priced at the Contract Unit Price, subject to those provisions contained in the Subsection below entitled, "INCREASED OR DECREASED QUANTITIES".

2. If the Contractor does not submit the Contractor's Cost and Schedule Proposal by the required date, Omnitrans reserves the right to unilaterally issue a CO utilizing Omnitrans' cost estimate. In addition, Omnitrans reserves the right to withhold payment on such a unilateral CO if the requested Contractor's Cost and Schedule Proposal is not submitted by the required date.
3. Omnitrans, or its Authorized Representatives, may require that the Contractor supply appropriate documentation to support the prices proposed for Changes and may refuse to complete negotiations until satisfactory documentation is submitted. Once a CO is executed, the Contractor's records shall be subject to audit and inspection.
4. The Contractor shall maintain such records as Omnitrans deems sufficient to distinguish the direct cost of Changed Work on a UCN from the cost of other operations. When directed by Omnitrans, the Contractor shall submit, daily and no later than each subsequent workday, to Omnitrans reports of Changed Work on forms approved by Omnitrans. The reports shall itemize all costs for labor, materials, and equipment and give the total of costs to date for the Changed Work. For labor, the reports shall include names, hours worked, and rates of pay for all labor classifications (up to but not including general foreman) directly engaged in the actual performance of the Changed Work.
5. When Omnitrans determines that the method of payment for a UCN or Change is to be on a time and material basis, the Contractor shall maintain and segregate cost and pricing data, books, records, documents, and any other accounting evidence sufficient to properly reflect all direct and indirect costs of whatever nature claimed to have been incurred, or anticipated, if not actually incurred.
6. All records and reports shall be made immediately available to Omnitrans upon request. The cost of preparing such reports shall be included in the Contractor's overhead compensation. All Changed Work reports shall be signed daily by the Contractor, or its Authorized Representative, and by Omnitrans. Omnitrans will compare its records with the Contractor's reports, make any necessary adjustments, and determine the costs of Changed Work. Such reports shall be the basis for final payment of the Change.
7. If the Contractor has submitted cost or pricing data in connection with the pricing of any Change to the Contract (unless the pricing was based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation), Omnitrans and other authorized agencies shall have the right to examine and audit books, records, documents, and other data of the Contractor (including computations and projections) related to negotiating, pricing or performing the Change in order to evaluate the accuracy, completeness, and currency of the cost or pricing data.
8. Also subject to audit review by Omnitrans, or its Authorized Representatives, shall be the Contractor's Records relating to those items on a progress payment application that relate to

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(1) Work done under a Unilateral Change Notice; (2) Materials or services not yet incorporated into the Work; and (3) Work done under a Change Order negotiated on a time and materials basis, Unit Price or Lump Sum basis. If the audit indicates that the Contractor has been overpaid under a previous payment application, that overpayment shall be credited against current progress payment applications.

D. CHANGED WORK COMPENSATION

1. Labor Costs

- a. Labor costs shall be based on the prevailing wage scale for each craft or type of work, as well as payroll tax Federal Insurance Contributions Act (FICA), Federal and State unemployment taxes (FUTA and SUTA), and fringe benefits as applicable. Payroll taxes shall be calculated on base wage plus vacation/holiday pay only and not on fringe benefits. Fringe benefits shall be applied to the straight-time component of cost, and shall not be increased for the premium-time component, unless otherwise required by the California Labor Code. Labor costs shall not include costs for assistant superintendents, office personnel, timekeepers, and maintenance mechanics, unless expressly authorized by Omnitrans prior to the start of Changed Work. For equipment, the reports shall include size, type, identification number, rental rate, and hours operated and hours idle.
- b. Labor reports shall include names, hours worked, and rates of pay for all classifications up to, but not including, general foreman that are directly engaged in the actual performance of the Changed Work. Labor costs shall not include costs for assistant superintendents, office personnel, timekeepers, and maintenance mechanics, unless expressly authorized by Omnitrans prior to the start of the Changed Work.

2. Material Costs

- a. Material costs shall be the cost of all materials purchased by the Contractor and used in the Changed Work, including normal waste allowance per industry standards. The cost shall also include freight, delivery, unloading, storage, and similar charges. If directed by Omnitrans, the Contractor shall obtain up to three material quotations from reputable Suppliers for review by Omnitrans prior to issuing a purchase order.

3. Equipment Costs

- a. Equipment rates shall be determined by using the current CALTRANS Equipment Rental Rates and Labor Surcharge. For equipment not included in CALTRANS Equipment Rental Rates and Labor Surcharge, the Contractor shall utilize Rental Rate Blue Book.

4. Administrative Costs

- a. Allowances for job indirect costs, taxes and insurance, overhead and profit applied to actual direct costs for labor, equipment and material shall be commensurate with the degree of difficulty/complexity and administrative burden. The Contractor must include in his cost proposal a breakdown of these administrative costs for evaluation and negotiation. The administrative cost shall not exceed 20% for labor, 15% for equipment and 10% for material, for the contractor/sub-contractor performing the Changed Work. If the contractor/sub-

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contractor performing the Changed Work is a first or second tier subcontractor, then the prime contractor and first tier subcontractors are allowed up to an additional 5% each for their commissions. If the contractor/sub-contractor performing the Work is a third tier or below, Omnitrans is obligated to pay no more than the above-stated maximum allowance percentages once applied to actual direct costs incurred at the tier Changed Work occurred, plus no more than above-stated commission percentage twice applied to sum of direct costs, indirect costs, taxes and insurance, overhead and profit actually allowed.

10 COMPENSATION (CONTRACT ARTICLE 4)

A. MEASUREMENT AND PAYMENT

1. The Contractor will be paid based on the Contract Items in the executed Bid Item List in accordance with Contract Article 4.
2. Contract quantities are approximate quantities that have been calculated from the lines shown on the Plans, with no allowance for shrinkage, swelling, overbuild, or waste.
- 3.

Note to Bidder: Quantities shown in the Bid Item List are for reference only and it is Contractor's sole responsibility to determine the exact quantities necessary to execute and complete the Work. Contract items will be paid on a percentage complete value for the Total Cost extended to the right for each line of the Bid Item List, not by the product of Estimated Quantity and Unit Cost.

B. APPLICATION FOR PROGRESS PAYMENT

1. Application for Progress payment will be for specific items, based on the percentage completed, in accordance with the approved Schedule of Values. The percentage complete will be based on the dollar value of the partially completed work relative to the dollar value of the contract item when entirely completed to Omnitrans' satisfaction, and made ready for service.
2. Each application shall be consistent with previous applications and payments, as approved by Omnitrans and paid by Omnitrans. The Initial application for payment, the application for payment at time of Substantial Completion, and the application for final payment involve additional requirements.
3. Payment Application Times: The period covered by each application for payment is from the 20th day of the prior month through and including the 20th of the current month of the billing cycle. The Contractor shall allow not less than of 5 working days for Omnitrans to evaluate the certified amounts and accept or reject the requisition.
4. Application for Payment Forms: The Contractor will submit applications for payment on forms acceptable to Omnitrans. The Contractor shall submit forms for pre-approval, along with the initial submittal of the Schedule of Values for approval.

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5. Application Preparation: Every entry on the form must be completed. The form shall be executed by a person authorized to sign legal documents on behalf of the Contractor. Omnitrans will return incomplete applications without taking action.
- a. Entries shall match the Bid Item List.
 - b. Include amounts for Work completed since the previous Application for Payment, whether or not payment has been received on the prior request. Include amounts for work performed under executed Change Orders and Change Orders issued unilaterally during the construction period covered by the application.
 - c. Certified payrolls, current and accurate, shall be submitted to Omnitrans to support each application for progress payment.
 - d. Furnish proper waivers of liens, releases, (conditional releases for payments being requested and unconditional releases for payments received), affidavits, sworn statements listing all contracts let and to be let and obligations due or to become due for equipment (and rentals thereof), materials, labor and services under subcontracts entered into by the prime contractor and other evidence establishing that all accounts for services, labor, materials, equipment and rentals thereof furnished by or for the prime contractor in the performance of this Contract and the execution of the Work have been paid in full.
 - e. Include back-up calculations substantiating the quantities and locations of the requested quantities to be paid. The submitted documentation shall be subject to Omnitrans approval. The application shall be deemed incomplete until the calculations submitted by the Contractor can be approved by Omnitrans.
 - f. The Contractor shall submit finalized signed and certified Applications for Progress Payments to the Construction Manager.
6. At the sole discretion of Omnitrans, application for payment amounts may include materials or equipment purchased or fabricated and stored, but not yet installed (Stored Materials). Payments may be made, if approved in advance by Omnitrans in writing, for materials stored off site pursuant to following conditions:
- a. When approved by Omnitrans in accordance with other Specification requirements, a maximum of 80 percent of the substantiated value of material will be paid for material stored off site for off-site fabrication or finishing. Materials shall be stored at a bonded facility, and shall be adequately insured and protected against theft and exposure or loss. Materials shall not be susceptible to deterioration or physical damage in storage or in transit to the Site. Payments shall not be made for materials in transit to the site or to a storage or transfer site.
 - b. Provide a certificate of insurance, evidence of transfer of title to Omnitrans, and surety's consent to payment for Stored Materials. Provide supporting documentation that verifies the amount requested, such as paid invoices. Match the amount requested with amounts indicated on documentation. Do not include overhead and profit on Stored Materials.
 - c. Provide summary documentation for Stored Materials. indicating the following:
 - 1. Materials previously stored and included in previous applications for payment.
 - 2. Work completed for the current application utilizing previously stored materials.

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3. Additional materials stored with the current application.
4. Total materials remaining stored, including materials with the current application.
7. Transmittal: Submit signed application for payment to Omnitrans, including lien waivers and other attachments as required. Each application shall be transmitted with a separate transmittal form, listing attachments and recording appropriate information about the application. For each application, attach a copy of Omnitrans approved certified payroll and worker hour report form, including individual forms for Subcontractors of any tier. The certified payroll and worker hour report form shall be submitted for Contractors and Subcontractors of any tier, even if no Work was performed by the Contractor or Subcontractor during the reporting period; and, in such cases, the form should state that “No Work was performed.”
8. Stop Notice Waivers and Release: With each application for payment, submit fully executed Conditional and Unconditional Stop Notice Waivers and Releases from entities lawfully entitled to file Stop Notices arising out of the Contract, and related to the Work covered by the payment.
 - a. Submit fully executed unconditional or partial waivers and releases for the amount requested in the previous application (after deduction for retainage) on each item and for each Subcontractor and Supplier included in the previous application.
 - b. Submit fully executed conditional or partial waivers and releases for the amount requested in each application, after deduction for retainage, on each item and for each Subcontractor and Supplier included in the application.
 - c. When an application shows completion of an item, submit conditional final or full waivers. Omnitrans reserves the right to designate which entities involved in the Work must submit waivers. Unconditional waivers and releases must state the amount that the Contractor, Subcontractor, or Supplier has been paid with respect to payment most recently made to the Contractor by Omnitrans.
 - d. Waiver Forms: Submit waivers on forms as set forth in California Civil Code. The forms should be executed in a manner acceptable to Omnitrans, and they should clearly state that they are not intended to release claims beyond the amount of the progress payment made, and do not cover unprocessed or unresolved claims.
 - e. In the event the Contractor fails to supply any of the foregoing waivers and release forms, Omnitrans reserves the right to retain the amount attributable to any such Subcontractor or Supplier until the appropriate form is received.
9. Application for Payment at Substantial Completion: After receiving the Certificate of Substantial Completion, the Contractor shall submit an application showing 100 percent completion for that portion of the Work certified as being substantially complete.
 - a. Include documentation supporting that the Work is substantially complete and a statement showing an accounting of Changes to the Contract Price.
 - b. This application shall reflect Certificates of Partial Substantial Completion issued previously for Omnitrans occupancy of designated portions of the Work.
 - c. Administrative actions and submittals that shall precede or coincide with this application include the following:
 1. Occupancy permits and similar approvals
 2. Warranties (guarantees) and maintenance agreements
 3. Test/adjust/balance records
 4. Maintenance instructions

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5. Meter readings
6. Start-up performance reports
7. Changeover information related to Omnitrans' occupancy, use, operation, and maintenance
8. Final cleaning
9. Application for reduction of retainage and consent of surety
10. Instructions for transferring insurance coverages
11. Final progress photographs
12. Provide list of incomplete Work, recognized as exceptions to Omnitrans' Certificate of Substantial Completion

C. PROMPT PAYMENT TO SUBCONTRACTORS

Prior to Omnitrans' certification of progress payments, commencing with the second invoice, the Contractor shall provide Omnitrans with evidence of Prompt Payment to Subcontractors for all amounts due for Work satisfactorily performed. Failure of the Contractor to make prompt payment as defined in this Section, or to delay payment without prior written consent of Omnitrans, shall constitute noncompliance with this Contract, which may result in appropriate administrative sanctions which may include withholding of payment of Contractor's invoice by Omnitrans until payment is made to the Subcontractor/Supplier or termination of the Contract in accordance with the Contract Article entitled, "Termination of Contract".

D. PAYMENT APPROVAL

1. Omnitrans may elect not to approve payment, and may withhold payment in whole or in part, to the extent reasonably necessary to protect Omnitrans if, in Omnitrans' opinion, payment in the amount of the application cannot be approved. Omnitrans will notify the Contractor in writing of Omnitrans' reasons for withholding payment in whole or in part. If the Contractor and Omnitrans cannot agree on a revised amount, Omnitrans will promptly issue a payment in the amount for which Omnitrans can certify. Omnitrans may also elect not to approve payment or, because of subsequently discovered evidence or subsequent observations, may nullify all or part of any payment previously issued, to such extent as may be necessary in Omnitrans' opinion to protect OMNITRANS from loss because of the following:
 - a. Defective Work not remedied
 - b. Third-party Claims filed, or reasonable evidence indicating probable filing of such Claims
 - c. Failure of the Contractor to make payments properly to Subcontractors or for labor, materials, or equipment
 - d. Reasonable evidence that Work cannot be completed for the unpaid balance of the total Contract Price
 - e. Damage to Omnitrans or party other than contractor
 - f. Reasonable evidence that Work will not be completed within Contract Time and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay
 - g. Persistent failure to carry out Work in accordance with the Contract Documents
 - h. Any liquidated damages that have subsequently accrued as of the date of the Application for Payment
 - i. Any sums expended by Omnitrans in performing any of the Contractor's obligations under the Contract that the Contractor has failed to perform
 - j. Any other sums that Omnitrans is entitled to recover from the Contractor under the terms of the Contract equity, or the law, including insurance deductibles

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2. When the above reasons for withholding payment are removed, payment will be made accordingly for amounts previously withheld for those reasons that were removed.
3. The failure of Omnitrans to deduct any of the above-identified withholdings from a progress payment shall not constitute a waiver of Omnitrans' right to such withholdings.
4. Omnitrans shall not have an obligation to pay or to see to payment of money to Subcontractors, except as may otherwise be required by law adjudicated by a court of competent jurisdiction.
5. Any payment or partial payment, or partial or entire use or occupancy of the Project by Omnitrans shall not constitute acceptance of the Work not in accordance with the Contract Documents.

E. FINAL PAYMENT APPLICATION

1. After Omnitrans issues a Certificate of Final Acceptance, Contractor shall submit an Application for Final Payment to Omnitrans, with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - a. Evidence of completion of all Project closeout requirements
 - b. Completion of items specified for completion after Substantial Completion (Punch List)
 - c. Insurance certificates for products and completed operations (where required), and proof that taxes, fees, and similar obligations were paid in full
 - d. An updated final statement, accounting for final changes to the total Contract Price
 - e. Surety consent to Final Payment
 - f. Evidence that all Claims have been settled
 - g. Final meter readings for utilities, a measured record of stored fuel, and similar data as of the Date of Substantial Completion, or when Omnitrans took possession of and assumed responsibility for corresponding elements of the Work, whichever occurs first
 - h. A final liquidated damages settlement statement
 - i. Transmittal of required Project Record documents to Omnitrans
 - j. Delivery of keys, extra stock and spare parts for maintenance
 - k. Removal of temporary facilities and services, surplus materials, rubbish, and similar elements
2. The Contractor shall prepare and submit a proposed Application for Final Payment to Omnitrans, showing the proposed total amount due the Contractor; any Change Orders; increased or decreased bond premiums due to Change Orders and other bases for payments; deductions made or to be made for prior payments; amounts to be retained; any Claims the Contractor intends to file at that time, or a statement that no Claims will be filed; and any unsettled Claims, stating the specific amounts. The Application for Final Payment shall be accompanied by complete and legally effective releases or waivers of liens and stop notices arising out of or filed in connection with the Work, in a form satisfactory to Omnitrans. Prior applications and payments shall be subject to correction in the proposed Application for Final Payment. Claims filed with the Application for Final Payment must be otherwise timely under these Contract Conditions. **Payments to the Contractor shall be made only for the actual dollar value of the Contract items constructed in accordance with the Contract Documents.**
3. Omnitrans shall review the Contractor's proposed Application for Final Payment. Any recommended changes or corrections shall be forwarded to the Contractor. Within 10 days thereafter the Contractor shall submit its revised Application for Final Payment, incorporating any recommended changes or corrections made by Omnitrans. Upon acceptance by Omnitrans, the revised Application for Final Payment shall become the basis for final payment.

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4. If no Claims have been filed with the Application for Final Payment and no other Claims remain unsettled, and agreements are reached on all questions regarding the Application for Final Payment, Omnitrans, in exchange for an executed release that is satisfactory in form and substance to Omnitrans, shall pay the entire sum found due on the approved Application for Final Payment, including the amount, if any, allowed on Claims.
5. Final payment shall be made within 30 days after Omnitrans' approval of the Application for Final Payment. Omnitrans may withhold from the final payment any amount authorized by the Contract, at law or equity.
6. Notwithstanding Omnitrans' acceptance of the Application for Final Payment and irrespective of whether it is before or after final payment has been made, Omnitrans shall not be precluded from subsequently showing that (1) the true and correct amount or type of Work performed or equipment and materials furnished is/are different from that previously accepted, (2) the previously accepted Work or materials did not in fact conform to the Contract requirements, or (3) a previous payment or portion thereof for Work performed or materials furnished was improperly made. Omnitrans also shall not be stopped from demanding and recovering damages from the Contractor as appropriate, under any of the foregoing circumstances as permitted under the Contract, at law or equity.

F. FINAL PAYMENT AS RELEASE

The release provided by the Contractor shall be free from any and all Claims arising from the Work under and in connection with the Contract, and shall release and waive any Claims against Omnitrans, its Member Agencies, the Engineering Consultant, the Construction Management Consultant, and their respective agents, officers, members, and employees. The release shall be accompanied by a certification by the Contractor that (1) it has resolved any Claims made by Subcontractors, Suppliers, and others against the Contractor or the Project Owner; (2) it has no reason to believe that any party has a valid Claim against the Contractor or the Project Owner which has not been communicated in writing by the Contractor to Omnitrans; and (3) all warranties and guarantees are in full force and effect.

G. RETENTION ON PROGRESS PAYMENTS

Omnitrans shall retain from each progress payment five percent (5%) of the progress payment as part security for the fulfillment of the Contract by the Contractor. The 5% will be held from the total Contract Price, as amended, or as adjusted by Change Orders.

1. Should the Contractor retain partial payment of Subcontractor's/Supplier's invoices for any reason allowable under the terms of this Contract and the Contractor's written agreement with the Subcontractor or Supplier, the Contractor agrees to make payment of such retainage within 10 working days of satisfactory completion of the work or other obligation.
2. At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with Omnitrans, or with a state or federally chartered bank in California as the escrow agent, which shall then pay those monies to the Contractor. Upon satisfactory completion of the Contract, the securities shall be returned to the Contractor.
3. Alternatively, the Contractor may request and Omnitrans shall make payment of retentions earned directly to the escrow agent at the expense of the Contractor. At the expense of the Contractor, the Contractor may direct the investment of the payments into securities, and the Contractor shall

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receive the interest earned on the investments under the same terms provided for in this section for securities deposited by the Contractor. Upon satisfactory completion of the Contract, the Contractor shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from Omnitrans, pursuant to the terms of this Section. The escrow contract used pursuant to this Section shall be substantially similar to the form set forth in the California Public Contract Code.

4. Securities eligible for investment under this Section shall include those listed in the Government Code, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by the parties.

H. STOP NOTICES

1. Omnitrans will retain and withhold from payment to the Contractor sufficient sums to cover stop notices filed pursuant to Section 3179 et seq. of the California Civil Code, including an amount to provide for the reasonable cost of any litigation thereunder. In addition to other amounts properly withheld under this Section or under other provisions of the Contract, Omnitrans shall retain from Progress Payments otherwise due the Contractor an amount equal to 125% of the amount claimed under any Stop Notice under Civil Code §3179 et. seq. or other lien filed against the Contractor for labor, materials, supplies, equipment, and any other thing of value claimed to have been furnished to and/or incorporated into the Work; or for any other alleged contribution thereto. In addition to the foregoing and in accordance with Civil Code §3186, Omnitrans may also satisfy its duty to withhold funds for Stop Notices by refusing to release funds held in escrow pursuant to Public Contract Code §22300. However, Omnitrans may release such funds upon receipt of a Release of Stop Notice executed by a Stop Notice Claimant, a Stop Notice Bond, an order of a court of competent jurisdiction, or other evidence satisfactory to Omnitrans that the Contractor has resolved such claim by settlement.

END OF SECTION

**Omnitrans****PERSONNEL POLICY MANUAL**

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SUBJECT

PROHIBITING WEAPONS IN THE WORKPLACEAPPROVED BY OMNITRANS
BOARD OF DIRECTORS

DATE: June 7, 2017

I. Purpose

It is the policy of Omnitrans to maintain a work environment that is safe for all persons, including the community, and conducive to attaining high work standards. To achieve these objectives, the Agency prohibits the possession of firearms and weapons in the work place, regardless of any license or permit that an individual may have which otherwise authorizes the individual to carry firearms or weapons.

It is illegal and a criminal violation to possess weapons in public buildings (California Penal Code 171b and 171.7).

II. Scope

This policy applies to all Omnitrans employees, including but not limited to staffing agency workers and contractors working for or with the Agency at any time, regardless of whether the Agency is the actual employer.

Possession of firearms and weapons is prohibited at all Omnitrans' offices, parking lots, agency vehicles and job sites, and in all Agency vehicles.

The following person/s are exempt from this policy as stated: a guard of a contract carrier operating an armored vehicle, and any law enforcement officer who is carrying out official duties engaged in protecting and preserving property or life within the scope of his or her employment.

Omnitrans will strictly enforce this policy. Violation of this policy will result in immediate disciplinary action, up to and including termination.

III. Procedure**A. COMMUNICATION OF POLICY**

(a) Each employee of the Agency shall receive a copy of this policy at the time of his/her hire and shall sign a copy of the acknowledgment. Employees who were employed before the effective date of this policy shall also receive a copy of this policy and shall sign a copy of the acknowledgment. A copy of the signed acknowledgment and of all new and revised policies throughout the employee's employment shall be maintained in each employee's personnel file.

(b) A copy of this policy shall be attached to each contractor's contract, and shall become a part of its contract. The contractor shall be responsible for communicating this policy to its employees and any subcontractors to which the contractor sublets any portion of its contract.



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PROHIBITING WEAPONS IN THE WORKPLACE

APPROVED BY OMNITRANS
BOARD OF DIRECTORS

DATE: June 7, 2017

B. PROHIBITED CONDUCT

(a) The transportation of firearms or weapons in Agency vehicles is prohibited. This includes but is not limited to:

- (1) to and from work,
- (2) when conducting Agency business,
- (3) at all times in Agency-owned or leased vehicles.

(b) The possession or carrying of permitted and non-permitted firearms or weapons while at Agency buildings, parking lots, sponsored events, and job sites.

(c) Exception: Power actuated tools which are manufactured for the use of fastening building materials and sanctioned tools for the purpose of performing Agency job duties are not subject to this policy.

C. SEARCH

(a) Omnitrans reserves the right to conduct reasonable, unannounced searches of Agency premises and personal searches of employees and others while entering, on, or leaving Agency premises, including, but not limited to, personal effects, vehicles, lockers, desks, tool boxes, clothing, meal containers, and baggage. Searches will be conducted when the Agency has a reasonable suspicion to believe that a particular employee may be in possession of a weapon or firearm.

(b) "Reasonable suspicion" is defined as a suspicion that is based on specific personal observations such as an employee's manner, disposition, behavior, speech, information provided to management by an employee, by law enforcement officials, by a security service, or by other persons believed to be reliable, or a suspicion that is based on other surrounding circumstances.

(c) Individuals refusing to allow an inspection will not be detained or forced to submit to the inspection. Refusal violates Agency policy and constitutes an act of insubordination constituting disciplinary action, up to and including separation of the employment relationship. Non-employees who refuse to allow an inspection will not be permitted on Agency premises and will be required to immediately leave the premises. Employees will be relieved of all duties while pending investigation.

D. DISCIPLINE

(a) Violations of any portion of this policy will subject the employee to discipline,

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PROHIBITING WEAPONS IN THE WORKPLACEAPPROVED BY OMNITRANS
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up to and including separation of employment.

(b) Violations by a contractor's employee or subcontractor of any portion of this policy may constitute a breach of contract and regardless will mandate the immediate removal of the contractor's employee from Agency premises, prohibition against the individual accessing Agency premises in the future, and may also constitute a breach of contract.

E. REPORT OF VIOLATIONS**1. Employee Violations**

Employees are required to report violations of this policy without regard to the relationship between the individual who initiates the prohibited behavior and the individual reporting it. An employee who believes that another employee may be in violation of this policy must report the alleged violation to the employee's manager or supervisor, the department director, security, or the appropriate departmental Human Resources representative.

Departments are responsible for implementing this policy. The Agency will promptly investigate allegations of violations of this policy.

Omnitrans reserves the right to authorize searches for prohibited weapons on its property when a violation is reported or when probable cause or reasonable suspicion is present consistent with law.

Employees should be aware that there is no reasonable expectation of privacy with respect to weapons in the workplace. The Agency's right to conduct searches includes, but is not limited to, such areas and items as lockers, desks, workstations, offices, purses, briefcases, bags, toolboxes, and lunch bags.

Searches of the employee's work area and belongings, as described above, may be conducted by the Security & Emergency Preparedness Coordinator, or designee. Searches of all types, including surrounding agency property, personal property and the employee may be conducted by law enforcement in accordance with law should reasonable suspicion be present. Any weapon found in violation of this policy may be confiscated. Refusal to permit a search may result in discipline, up to and including separation.

2. Visitor Violations

Visitors are not allowed to carry a weapon on the premises. Any visitor carrying a weapon into a posted no-carry agency facility is creating an elevated risk to security and safety that warrants a response leading to compliance with the law. If the visitor

**Omnitrans****PERSONNEL POLICY MANUAL**

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SUBJECT**PROHIBITING WEAPONS IN THE WORKPLACE**APPROVED BY OMNITRANS
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poses an immediate risk to security or safety, law enforcement shall be notified immediately by calling 9-911. The visitor shall be considered an immediate risk to safety and security if he/she is acting in an aggressive, belligerent, confrontational, suspicious or in an otherwise questionable manner while carrying a weapon.

F. FALSE REPORTS

Employees making intentionally false and malicious complaints of weapons in the workplace will be subject to disciplinary action, up to and including separation and/or will be reported to the proper authorities as appropriate.

G. ROLES AND RESPONSIBILITIES

Employees are responsible for understanding and complying with the Policy Prohibiting Weapons in the Workplace.

Whenever there is a question as to whether an instrument, article or substance is considered a weapon in violation of this policy, it is the employee's responsibility to seek clarification. Employees seeking clarification should direct their questions to the agency's Security & Emergency Preparedness Coordinator at 909-379-7117 prior to bringing the item(s) to Omnitrans work sites and events, as well as agency-owned or leased facilities or vehicles.

H. SAFETY FIRST

In applying this policy, no employee shall take any action that will risk his or her own safety or the safety of other individuals. No attempt should ever be made by an employee to restrain or forcibly evict an armed person from agency premises.

An individual's continued non-compliance after being properly informed of the law (California Penal Code 171 (b)) will result in notification to law enforcement and discipline, up to and including separation of employment. Employees should notify security immediately.

An employee who feels an imminent danger to his or her own safety or the safety or security of others, should avoid any interaction with the individual. Immediately contact law enforcement by calling 9-911 and security at 909-379-7117.

I. ANTI-RETALIATION PROVISION

Omnitrans strictly prohibits any retaliation against an employee who has reported a possible breach of policy. If an employee feels that he or she has been subjected to retaliation in violation of this policy, the employee must immediately report it to his or her supervisor or other designated Human Resources representative.

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J. DEFINITIONS

1. **Firearm or weapon includes, but is not limited to:** A weapon, a pistol or rifle, whether loaded or unloaded, capable of firing a projectile and using an explosive as a propellant.
 - A firearm, whether loaded or unloaded, from which a shot may be discharged including but not limited to handguns, pistols, revolvers, shotguns, rifles, and bb guns;
 - A gun that can discharge a shot or a projectile by means of an explosive or gas, or compressed air;
 - A device designed to be used as a weapon, from which can be expelled a projectile by the force of any explosion or force of combustion;
 - Any weapon (including a starter gun) which will or is designed to or may readily be converted to expel a projectile by the action of an explosive;
 - Any destructive device;
 - Any device designed as a weapon and capable of producing great bodily harm, including but not limited to, stun guns, stun batons;
 - An electric weapon such as a taser gun;
 - Any combustible or flammable liquid, or other substance, device, or instrumentality that, in a manner it is used or intended to be used, is calculated or likely to produce death or great bodily harm, or any fire that is used to produce death or great bodily harm;
 - Any knife that is carried with intention or calculation to produce death or great bodily harm having a blade length in excess of four (4) inches, the blade of which is fixed or is capable of being fixed in an unguarded position by the use of one or two hands. Switchblades are specifically prohibited. (Knives intended to be used as eating utensils, and stored or maintained in office kitchens or lunchrooms do not represent a violation of this policy.)
2. **Office:** All permanent facilities, all mobile facilities, all leased facilities, and any facility designated as an office by the agency.
3. **Parking lot:** All lots at permanent facility, park and rides, lots at project sites, any lot that the agency designates as a parking lot that is not at a permanent facility or project site.
4. **Agency vehicle:** All agency-owned buses/vehicles, all agency-leased buses/vehicles, all agency-rental buses/vehicles, and all personal vehicles for which the owner receives a vehicle allowance, all personal vehicles where the owner receives reimbursement for mileage.



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5. **Search:** To examine in order to find something concealed.

6. **Job sites:** Any and all locations where the agency conducts business.

SIGNS

1. At each entrance to buildings, parking lots, and project sites, a sign shall be posted in a location that is conspicuous to all who could enter a building, parking lot, or project site.
2. Signs shall have wording or pictogram that prohibits firearms, weapons and give notice of video surveillance. Signs shall be vandalism resistant and of the quality that they will not fade due to the elements.



CONTRACT AGREEMENT

between

CONTRACTOR
Super Sweepers, Inc.
202 Hillcrest Avenue, Suite I
San Bernardino, CA 92408

(hereinafter "CONTRACTOR")
Telephone: (909) 980-8447
Email: trisha@supersweepersinc.com

Remit Address
Super Sweepers, Inc.
202 Hillcrest Avenue, Suite I
San Bernardino, CA 92408

And

Omnitrans
1700 West Fifth Street
San Bernardino, CA 92411
(hereinafter "OMNITRANS")

CONTRACT DOCUMENTS

CONTRACT NO. MNT19-74

PARKING LOT SWEEPING

Contract Amount: \$142,560

Omnitrans Project Manager:

Name: Mark Montgomery

Title: Facilities Manager

Telephone: (909) 379-7175

Email: mark.montgomery@omnitrans.org

Contract Administrator:

Name: Krystal N. Turner

Title: Contracts Administrator

Telephone: (909) 379-7202

Email: krystal.turner@omnitrans.org



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ATTACHMENT A – SCOPE OF WORK

ATTACHMENT B - REGULATORY REQUIREMENTS

ATTACHMENT C – PRICING

ATTACHMENT D – PROHIBITING WEAPONS IN THE WORKPLACE

This Agreement is made and entered into as of this 13th day of June 2019, by and between Omnitrans (hereinafter referred to as "OMNITRANS") and Super Sweepers, Inc. (hereinafter referred to as "CONTRACTOR").

RECITALS

WHEREAS, OMNITRANS is a joint powers authority organized under Section 6500 et seq. of the California Government Code with power to contract for services described in Attachment A to this Agreement entitled "Attachment A, Scope of Work" (hereinafter referred to as "Work");

WHEREAS, CONTRACTOR has indicated it is qualified to perform such services and (1) has reviewed all the available data furnished by OMNITRANS pertinent to the Work to be rendered; (2) has inspected and reviewed the Work to be rendered; (3) will exercise the ordinary care and skill expected of a practitioner in its profession; and (4) is willing to accept responsibility of performing the Work set forth in this Agreement for the compensation and in accordance with the terms, requirements and conditions herein specified;

NOW, THEREFORE, for the consideration hereinafter stated, the parties agree as follows:

1. SCOPE OF WORK

- A. CONTRACTOR will perform the Work and related tasks as described in Attachment A, Scope of Work hereto and is incorporated by reference into and made a part of this Agreement.
- B. This is a non-exclusive Agreement, whereby OMNITRANS may, at its sole discretion, augment or supplant the Work with its own forces or forces of another contractor or entity. CONTRACTOR will cooperate fully with OMNITRANS' staff or other contractor or entity that may be providing similar or the same Work for OMNITRANS.

2. PERIOD OF PERFORMANCE

The term of this Agreement shall be from the date of execution of this Agreement and continue in effect through June 12, 2022, unless terminated as specified in Section 10 and 11 of this Agreement. Omnitrans has no obligation to purchase any specified amount of products/services. All applicable indemnification provisions in this Agreement shall remain in effect following the termination of this Agreement.

Omnitrans' election to extend the Agreement beyond the Initial Term shall not diminish its right to terminate the Agreement for Omnitrans' convenience or CONTRACTORS default as provided elsewhere in this Agreement. The "maximum term" of this Agreement shall be the period extended from June 13, 2022 through June 12, 2024, which period encompasses the Initial Term and the Option Year One and Option Year Two.

3. CONTRACT OPTIONS

- A. Omnitrans will have the unilateral right in the contract by which, for a specified time, Omnitrans may elect to purchase additional services called for by the contract or may elect to extend the term of the contract. The requirements below apply:
 - 1) Any options that were requested by Omnitrans and/or contained in the Contractor's PROPOSAL or offer must have been evaluated in making the contract award prior to exercising any such options.
 - 2) Since Contractor's proposed pricing for the option years and additional services are considered in evaluating the Contractor's original proposal and form the basis for awarding the contract, Contractor shall be bound by the proposal pricing for additional services and/or option years, unless otherwise provided herein.
- B. Omnitrans will provide a minimum of thirty days (30) written notice to the Contractor of Omnitrans' exercise of its option to extend the contract years. Omnitrans may give notice of its exercise of the option for additional services at any time during the term of the contract. The minimum time for the written notice may be waived by mutual agreement.

4. COMPENSATION

For CONTRACTOR's full and complete performance of its obligations under this Agreement, OMNITRANS shall pay CONTRACTOR on a FIXED PRICE basis at the fully burdened fixed rates shown in Attachment C, and subject to the maximum cumulative payment obligation.

OMNITRANS' maximum cumulative payment obligation under this Agreement shall not exceed One Hundred Forty Two Thousand, Five Hundred and Sixty Dollars (\$142,560), including all amounts payable to CONTRACTOR for all costs, including but not limited to direct labor, other direct costs, subcontracts, indirect costs including, but not limited to, leases, materials, taxes, insurance, and profit.

5. INVOICING AND PAYMENT

- A. CONTRACTOR shall invoice OMNITRANS on a monthly basis no later than the 15th of each month. CONTRACTOR shall furnish information as may be requested by OMNITRANS to substantiate the validity of an invoice.

CONTRACTOR shall submit invoices in duplicate to:

OMNITRANS
1700 West Fifth Street
San Bernardino, CA 92411
Attn: Accounts Payable
Accountspayable@omnitrans.org
Contracts@omnitrans.org

A separate invoice shall be used for each shipment. Each invoice shall include, at minimum, the following information:

- Contract number
- Invoice number
- Description of delivery
- Delivery Date
- Total quantity delivered
- Information as requested by OMNITRANS

- B. OMNITRANS shall remit payment within thirty (30) calendar days of approval of the invoices by OMNITRANS' Project Manager.

In the event OMNITRANS should overpay CONTRACTOR, such overpayment shall not be construed as a waiver of OMNITRANS' right to obtain reimbursement for the overpayment. Upon discovering any overpayment, either on its own or upon notice of OMNITRANS, CONTRACTOR shall immediately reimburse OMNITRANS the entire overpayment or, at its sole discretion, OMNITRANS may deduct such overpayment amount from monies due to CONTRACTOR under this Agreement or any other Agreement between OMNITRANS and CONTRACTOR.

C. TITLE

- a. Title shall pass to Omnitrans at the time of payment.
- b. The title transferred as above shall in each case be good, and free and clear from any and all security interests, liens, and/or other encumbrances.
- c. The transfer of title as specified above shall not imply Acceptance by Omnitrans, nor relieve the Contractor from the responsibility for strict compliance with the Contract, including warranty as specified in the Article entitled Warranty of Work, and for any loss of or damage to the Work.
- d. The Contractor at its own expense shall promptly execute, acknowledge, and deliver to the Omnitrans proper bills of sale or other written instruments of title in a form as required by Omnitrans; said instruments shall convey to the Omnitrans' title free and clear of debts, claims, liens, mortgages, taxes, and/or encumbrances.
- e. Contractor shall have title to and bear the risk of any loss of or damage to Work purchased hereunder until they are delivered, unloaded, and received by Omnitrans at the FOB Destination specified herein. Contractor's responsibility for loss or damage except for loss or damage resulting from Contractor's negligence, shall cease when title passes to Omnitrans.

6. AUDIT AND INSPECTION OF RECORDS

CONTRACTOR agrees that OMNITRANS or any duly authorized representative shall have access to and the right to examine, audit, excerpt, copy or transcribe any pertinent transaction, activity, time cards, employment records or other records relating to this Agreement. Such material, including all pertinent cost, accounting, financial records, and proprietary data must be kept and maintained by CONTRACTOR for a period of three (3) years after completion of this Agreement unless OMNITRANS' written permission is given to CONTRACTOR to dispose of material prior to this time.

7. NOTIFICATION

All notices hereunder concerning this Agreement and the Work to be performed shall be physically transmitted by courier, overnight, registered or certified mail, return receipt requested, postage prepaid and addressed as follows:

To OMNITRANS:

Omnitrans
1700 West Fifth Street
San Bernardino, CA 92411
Attn: Krystal N. Turner
Title: Contracts Administrator
krystal.turner@omnitrans.org

To CONTRACTOR:

Super Sweepers, Inc.
202 Hillcrest Avenue, Suite I
San Bernardino, CA 92408
Attn: Trisha Walker
Office Manager
trisha@supersweepersinc.com

8. OMNITRANS' AND CONTRACTOR'S REPRESENTATIVES

A. OMNITRANS' Project Manager

Contracting Officer: OMNITRANS' CEO/General Manager or his authorized designee who has authority to execute contracts on behalf of OMNITRANS.

Project Manager: Mark Montgomery, Facilities Manager.

- a. Except as expressly specified in this Agreement, the Contracting Officer may exercise any powers, rights and/or privileges that have been lawfully delegated by OMNITRANS. Nothing in this Agreement should be construed to bind OMNITRANS for acts of its officers, employees, and/or agents that exceed the delegation of authority specified herein.
- b. The Contracting Officer has delegated to the Project Manager certain powers and duties in connection with this Agreement. The Project Manager is the authorized representative of the Contracting Officer for matters related to this Agreement. The Project Manager or his/her designee is empowered to:
 1. Have general oversight of the Work and this Agreement, including the power to enforce compliance with this Agreement.
 2. Reserve the right to remove any portion of the Work from CONTRACTOR which have not been performed to OMNITRANS' satisfaction.
 3. Subject to the review and acceptance by OMNITRANS, negotiate with CONTRACTOR all adjustments pertaining to this Agreement for revision.
- c. In addition to the foregoing, the Project Manager shall have those rights and powers expressly set forth in other sections of this Agreement.

B. Contractor's Key Personnel

The following are CONTRACTOR's key personnel and their associated roles in the Work to be provided:

<u>Name</u>	<u>Role</u>
Timothy Morrison	President
Trisha Walker	Office Manager
_____	_____
_____	_____

Any propose/substitution or replacement by Contractor of Contractor's key personnel shall ensure that such person possesses the same or better expertise and experience than the key personnel being substituted or replaced. Omnitrans reserves the right to interview such person to ascertain and verify if such proposed substitution or replacement does in deed possess such expertise and experience.

OMNITRANS awarded this Agreement to CONTRACTOR based on OMNITRANS' confidence and reliance on the expertise of CONTRACTOR's key personnel described above. CONTRACTOR shall not reassign key personnel or assign other personnel to key personnel roles until CONTRACTOR obtains prior written approval from OMNITRANS.

9. DISPUTE RESOLUTION

Any disputes between the successful CONTRACTOR and OMNITRANS relating to the implementation or administration of the Contract shall be resolved in accordance with this section.

- A. The parties shall first attempt to resolve the dispute informally in meetings or communications between proposer and OMNITRANS.
- B. If the dispute remains unresolved fifteen (15) days after it first arises, proposer may request that Omnitrans' CEO/General Manager issue a recommended decision on the matter in dispute. Omnitrans' CEO/General Manager shall issue the recommended decision in writing and provide a copy to proposer.
- C. If the dispute remains unresolved after review by Omnitrans' CEO/General Manager, either party may seek judicial resolution of the dispute in an appropriate Court of the State of California.

- D. Pending final resolution of a dispute under this section, proposer shall proceed diligently with performance in accordance with the Contract and Omnitrans' CEO/General Manager's recommended decision.

10. TERMINATION FOR CONVENIENCE

OMNITRANS may terminate this Agreement in whole or in part for OMNITRANS' convenience. Omnitrans' CEO/General Manager shall terminate this Agreement by a written Notice of Termination to CONTRACTOR specifying the nature, extent, and effective date of the termination. Upon receipt of the notice of termination, CONTRACTOR shall immediately discontinue all Work affected and deliver all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this Agreement, whether completed or in process, to Omnitrans' CEO/General Manager. OMNITRANS shall make an equitable adjustment in the Agreement for Work already performed, but shall not allow anticipated profit on unperformed services. Force Majeure shall apply.

11. TERMINATION FOR BREACH OF AGREEMENT

- A. If CONTRACTOR fails to perform any of the provisions of this Agreement or so fails to make progress as to endanger timely performance of this Agreement, OMNITRANS may give CONTRACTOR written notice of such default. If CONTRACTOR does not cure such default or provide a plan to cure such default which is acceptable to OMNITRANS within the time permitted by OMNITRANS, then OMNITRANS may terminate this Agreement due to CONTRACTOR's breach of this Agreement.
- B. If a federal or state proceeding for relief of debtors is undertaken by or against CONTRACTOR, or if CONTRACTOR makes an assignment for the benefit of creditors, then OMNITRANS may immediately terminate this Agreement.
- C. If CONTRACTOR violates Section 28, Compliance with Lobbying Policies, of this Agreement, then OMNITRANS may immediately terminate this Agreement.
- D. In the event OMNITRANS terminates this Agreement as provided in this Section, OMNITRANS may procure, upon such terms and in such manner as OMNITRANS may deem appropriate, work similar in scope and level of effort to those so terminated, and CONTRACTOR shall be liable to OMNITRANS for all of its costs and damages, including, but not limited, any excess costs for such Work.
- E. All finished or unfinished documents and materials produced or procured under this Agreement shall become OMNITRANS' property upon date of such termination.

- F. If, after notice of termination of this Agreement under the provisions of this Section, it is determined for any reason that CONTRACTOR was not in default under the provisions of this Section, or that the default was excusable under the terms of this Agreement, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to Section 10, Termination for Convenience.
- G. The rights and remedies of OMNITRANS provided in this Article shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Agreement.

12. ASSIGNMENT

This Agreement, any interest herein or claim hereunder, may not be assigned by CONTRACTOR either voluntarily or by operation of law, nor may all or any part of this Agreement be subcontracted by CONTRACTOR, without the prior written consent of OMNITRANS. Consent by OMNITRANS shall not be deemed to relieve CONTRACTOR of its obligations to comply fully with all terms and conditions of this Agreement.

13. SUBCONTRACTING

OMNITRANS hereby consents to CONTRACTOR's subcontracting of portions of the Work to the parties identified below for the functions described in CONTRACTOR's proposal. CONTRACTOR shall include in each subcontract agreement the stipulation that CONTRACTOR, not OMNITRANS, is solely responsible for payment to the subcontractor for all amounts owing and that the subcontractor shall have no claim, and shall take no action against OMNITRANS, Member Agencies or officers, directors, employees or sureties thereof for nonpayment by CONTRACTOR.

CONTRACTOR shall not, without the express written consent of Omnitrans, either:

- a. Substitute any person, firm, or corporation as subcontractor in place of the subcontractors identified below; or
- b. Permit any subcontract to be assigned or transferred; or
- c. Allow work to be performed by anyone other than the original subcontractor listed below.

Subcontractor's Name and Address

Work to Be Performed

N/A

14. INDEPENDENT CONTRACTOR

CONTRACTOR's relationship to OMNITRANS in the performance of this Agreement is that of an independent Contractor. CONTRACTOR's personnel performing Work under this Agreement shall at all times be under CONTRACTOR's exclusive direction and control and shall be employees of CONTRACTOR and not employees of OMNITRANS. CONTRACTOR shall pay all wages, salaries and other amounts due its employees in connection with this Agreement and shall be responsible for all reports and obligations respecting them, such as social security, income tax withholding, unemployment compensation, workers' compensation and similar matters.

15. INSURANCE

A. INSURANCE REQUIREMENTS

1) General Requirements for Contractor

- a. Without limiting or diminishing the Contractor's obligation to indemnify or hold Omnitrans harmless, Contractor shall procure, prior to commencement of the services required under this contract and maintain for the duration of the contract at its own expense, insurance of the kinds and in the amounts as indicated below;
- b. Provide Omnitrans with valid original certificates of insurance and endorsements showing Omnitrans as an additional insured.

2) Deductibles or Self-Insured Retention (SIR)

SIR must be declared to and approved by Omnitrans. At the option of Omnitrans, either: the insurer shall reduce or eliminate such deductibles or SIR or Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

3) Other Insurance Provisions

a. Commercial General Liability and Automobile Liability

Commercial General Liability insurance coverage, including but not limited to, premises liability, contractual liability, products and completed operations liability, personal and advertising injury covering claims which may arise from or out of Contractor's performance of its obligations hereunder and if Contractor's vehicles or mobile equipment are used in the performance of the obligations under this Agreement, then Contractor shall maintain liability insurance for all owned, non-owned or hired vehicles so used. Policy

shall name Omnitrans, its officers, officials, employees, agents and volunteers as additional insured as respects: liability arising out of activities performed by or on behalf of Contractor; products and completed operations of Contractor; premises owned, occupied or used by Contractor; or automobiles owned, leased, hired or borrowed by Contractor. The coverage shall contain no special limitations of the scope of protection afforded Omnitrans, its officers, officials, employees, agents, and volunteers.

1. For any claims related to this project, Contractor's insurance coverage shall be primary insurance as respects Omnitrans, its officers, officials, employees, agents, and volunteers. Any insurance and/or deductibles and/or self-insured retentions or self-insured programs maintained by Omnitrans, its officers, officials, employees, agents, and volunteers shall be excess of Contractor's insurance and shall not be construed as contributory.
2. Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
3. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, cancelled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice has been given to Omnitrans.

b. Workers' Compensation

If the Contractor has employees as defined by the State of California, the Contractor shall maintain statutory Workers' compensation Insurance (Coverage A) as prescribed by the laws of the State of California. Policy shall include Employers' Liability (Coverage B) including Occupational Disease with limits not less than \$1,000,000 per person per accident. The policy shall be endorsed to waive subrogation in favor of Omnitrans and, if applicable, to provide a Borrowed Servant/Alternate Employer Endorsement.

c. Care, Custody, and Control

Contractor shall insure any Omnitrans property while under its Care, Custody, and Control according to the requirements listed in the insurance coverage required.

4) Acceptability of Insurers

Insurance companies shall be State of California admitted or approved and have a current **A.M. Best's** rating of no less than **A:VIII**.

5) Verification of Coverage

- a. Contractor shall furnish Omnitrans with original endorsements affecting coverage required by this clause. The endorsements are

to be signed by a person authorized by that insurer to bind coverage on its behalf. All insurance certificates and endorsements are to be received and approved by Omnitrans before work commences.

- b. As an alternative, Contractor's insurer may provide complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications.
- c. In lieu of purchasing insurance and providing original endorsements and or certificates of insurance, the Contractor may provide proof of self-insurance; such proof must be to the satisfaction of Omnitrans.

6) Subcontractors

Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein.

7) Notification of Terminated Insurance

Insurance shall not be terminated or expire without thirty (30) days written or electronic notice, and are required to be maintained in force until completion of the contract.

B. MINIMUM INSURANCE COVERAGE

If the Contractor maintains broader coverage and/or higher limits than the minimum requirements shown below, Omnitrans requires and shall be entitled to the broader coverage and/or higher limits maintained by the Contractor.

- 1) ☒ **Commercial General Liability including Products/Completed Operations:** \$1,000,000; per occurrence for bodily and property damage liability and \$2,000,000 aggregate; *Omnitrans named and endorsed as an Additional Insured.*
- 2) ☒ **Automobile Liability:** \$1,000,000; per occurrence for bodily and property damage liability and aggregate; *Omnitrans named and endorsed as an Additional Insured.*
- 3) ☐ **Errors and Omissions Liability:** \$1,000,000; combined single limit bodily and property damage liability per occurrence and \$ 3,000,000 aggregate or,
- 4) ☐ **Professional Liability:** \$1,000,000; per occurrence and aggregate.
- 5) ☒ **Workers' Compensation:** statutory limits or,

- 6) ☐ **Self Insurance Program:** a State Approved program in an amount and form that meets all applicable requirements of the Labor Code of the State of California.
- 7) ☒ **Employer's Liability:** \$1,000,000; per occurrence.
- 8) ☐ **Environmental Liability:** \$1,000,000; per occurrence and aggregate; *Omnitrans named and endorsed as an Additional Insured.*
- 9) ☐ **Umbrella Policy:** \$4,000,000; per occurrence and aggregate Additional coverage for the above policies, *Omnitrans Additional Insured.*
- 10) ☒ All drivers making deliveries of products specified on this solicitation shall have Hazardous Materials Endorsements on their Commercial Drivers License, and such other Endorsements as may be required by relevant laws and/or regulations.

16. INDEMNITY

CONTRACTOR shall indemnify, defend and hold harmless OMNITRANS, and its member agencies, and their officers, directors, employees and agents from and against any and all liability, expense (including, but not limited to, defense costs and attorneys' fees), claims, causes of action, and lawsuits for damages of any nature whatsoever, including, but not limited to, bodily injury, death, personal injury or property damage (including property of CONTRACTOR) arising from or connected with any alleged act and/or omission of CONTRACTOR, its officers, directors, employees, agents, Subcontractors or suppliers. This indemnity shall survive termination or expiration of this Agreement and/or final payment thereunder.

17. REVISIONS IN SCOPE OF WORK

By written notice or order, OMNITRANS may, from time to time, order work suspension or make changes to this Agreement. Changes in the Work shall be mutually agreed to and incorporated into an amendment to this Agreement. Upon execution of an amendment, CONTRACTOR shall perform the Work, as amended.

18. RIGHTS IN TECHNICAL DATA

- A. No material or technical data prepared by CONTRACTOR under this Agreement is to be released by CONTRACTOR to any other person or entity except as necessary for the performance of the Work. All press releases or information concerning the Work that might appear in any publication or dissemination, including but not limited to, newspapers, magazines, and electronic media, shall first be authorized in writing by OMNITRANS.

- B. The originals of all letters, documents, reports and other products and data produced under this Agreement shall become the property of OMNITRANS without restriction or limitation on their use and shall be made available upon request to OMNITRANS at any time. Original copies of such shall be delivered to OMNITRANS upon completion of the Work or termination of the Work. CONTRACTOR shall be permitted to retain copies of such items for the furtherance of its technical proficiency; however, publication of this material is subject to the prior written approval of OMNITRANS. The provisions of this paragraph shall survive termination or expiration of this Agreement and/or final payment thereunder.

19. OWNERSHIP OF REPORTS AND DOCUMENTS

The originals of all letters, documents, reports and other products and data produced under this Agreement shall be delivered to and become the sole and exclusive property of OMNITRANS. Copies may be made for CONTRACTOR's records but shall not be furnished to others without prior written authorization from OMNITRANS. Such deliverables shall be deemed works made for hire, and all rights in copyright therein shall be retained by OMNITRANS.

20. OWNERSHIP RIGHTS

- A. In the event OMNITRANS rightfully obtains copies of Proprietary Data under the terms of the separate License Agreement and Escrow Agreement that govern rights in Documentation, Software and Intellectual Property created and/or developed by Contractor, its Third Party Software Contractors and its Suppliers as part of the Project, any derivative works and associated documentation created by or on behalf of OMNITRANS by Permitted Programmers (as defined in the License Agreement) shall be the sole and exclusive property of OMNITRANS (collectively, "OMNITRANS Intellectual Property"), and OMNITRANS may use, disclose and exercise dominion and full rights of ownership, in any manner in OMNITRANS Intellectual Property in connection with the use, operation and maintenance of a transportation system administered by OMNITRANS. No use of OMNITRANS Intellectual Property shall be made for any purpose other than in conjunction with a transportation system administered by CONTRACTOR, and OMNITRANS shall not sell, lease, rent, give away or otherwise disclose any OMNITRANS Intellectual Property to any outside third party other than Permitted Programmers. To the extent there may be any question of rights of ownership or use in any OMNITRANS Intellectual Property, Contractor shall require all of its subcontractors and suppliers (including without limitation its Third Party Software Contractors) to assign to OMNITRANS, all worldwide right, title and interest in and to all OMNITRANS Intellectual Property in a manner consistent with the foregoing terms of this paragraph. Contractor shall execute any documents as OMNITRANS may from time to time reasonably request to effectuate the terms of this paragraph.

- B. All documentation and Software which predates this Contract and which otherwise owned by Contractor or its Third Party Software Contractors, and all Documentation and Software which is created by Contractor or its Third Party Software Contractors shall be Licensed Software or Licensed Documentation, as appropriate. All Licensed Software and Licensed Documentation shall be governed by the License Agreement by and between the parties of event date herewith.

21. WORK FOR HIRE

Any work created or produced as a part of this Agreement that may be defined under Section 101, Title 17, USC will be considered "work for hire" as it pertains to ownership rights. CONTRACTOR, by his/her endorsement hereon agrees that all rights to any work(s) created or produced are waived, and that ownership rests with OMNITRANS. CONTRACTOR further agrees to ensure transfer of all rights to such work(s), as defined under federal copyright law, that may be created or produced under this Agreement by its suppliers, contractors or subcontractors.

22. SUBMITTAL OF CLAIMS BY CONTRACTOR

CONTRACTOR shall file any and all claims with OMNITRANS' Project Manager in writing within thirty (30) days of the event or occurrence giving rise to the claim. The claim shall be in sufficient detail to enable OMNITRANS to ascertain the claim's basis and amount, and shall describe the date, place and other pertinent circumstances of the event or occurrence giving rise to the claim and the indebtedness, obligation, injury, loss or damages allegedly incurred by CONTRACTOR.

Even though a claim may be filed and/or in review by OMNITRANS, CONTRACTOR shall continue to perform in accordance with this Agreement.

23. EQUAL OPPORTUNITY

CONTRACTOR shall not discriminate against, or grant preferential treatment to, any individual or group, or any employee or applicant for employment because of race, age, religion, color, ethnicity, sex, national origin, ancestry, physical disability, mental disability, political affiliation, sexual orientation, marital status or other status protected by law. CONTRACTOR shall take action to ensure that applicants and employees are treated without regard to the above.

24. STANDARD OF PERFORMANCE

- A. CONTRACTOR shall perform and exercise and require its subcontractors to perform and exercise due professional care and competence in the performance of the Work in accordance with the requirements of this Agreement. CONTRACTOR shall be responsible for the professional quality, technical accuracy, completeness and coordination of the Work, it being understood that OMNITRANS will be relying upon such professional

quality, accuracy, completeness and coordination in utilizing the Work. The foregoing obligations and standards shall constitute the "Standard of Performance" for purposes of this Agreement. The provisions of this paragraph shall survive termination or expiration of this Agreement and/or final payment thereunder.

- B. All workers shall have sufficient skill and experience to perform the Work assigned to them. OMNITRANS shall have the right, at its sole discretion, to require the immediate removal of CONTRACTOR's personnel at any level assigned to the performance of the Work at no additional fee or cost to OMNITRANS, if OMNITRANS considers such removal in its best interests and requests such removal in writing and such request is not done for illegal reasons. Further, an employee who is removed from performing Work under this Agreement under this Article shall not be re-assigned to perform Work in any other capacity under this Agreement without OMNITRANS' prior written approval.

25. NOTIFICATION OF EMPLOYMENT OF OMNITRANS BOARD MEMBERS/ALTERNATES AND EMPLOYEES

To ensure compliance with OMNITRANS' Ethics Policy, CONTRACTOR shall provide written notice to OMNITRANS disclosing the identity of any individual who CONTRACTOR desires to employ or retain under a contract, and who (1) presently serves as a Board Member/Alternate or an employee of OMNITRANS, or (2) served as a Board Member/Alternate or an employee of OMNITRANS within the previous 12 months of the date of the proposed employment or retention by CONTRACTOR. CONTRACTOR's written notice shall indicate whether the individual will be an officer, principal or shareholder of the entity and/or will participate in the performance of this Agreement.

26. DISQUALIFYING POLITICAL CONTRIBUTIONS

In the event of a proposed amendment to this Agreement, CONTRACTOR shall provide prior to the execution of such amendment, a written statement disclosing any contribution(s) of \$250 or more made by CONTRACTOR or its subcontractor(s) to Omnitrans Board Members/Alternates or employees within the preceding twelve (12) months of the date of the proposed amendment. Applicable contributions include those made by any agent/person/entity on behalf of CONTRACTOR or subcontractor(s).

27. COMPLIANCE WITH LAW

- A. CONTRACTOR shall familiarize itself with and perform the Work required under this Agreement in conformity with requirements and standards of OMNITRANS, municipal and public agencies, public and private utilities, special districts, and railroad agencies whose facilities and work may be

affected by Work under this Agreement. CONTRACTOR shall also comply with all Federal, state and local laws and ordinances.

- B. Government regulations that directly affect the CONTRACTOR'S performance of this contract and unforeseen impacts, which neither party could have contemplated at the onset of the contract and have an unconscionable impact on the CONTRACTOR may be given special pricing consideration. The parties, in good faith, shall review established rates and may adopt any mutually agreed new rates, which shall only be effective as agreed upon by the parties. Thorough documentation including all cost elements is required to support the Contractor's claim to any relief under this clause.

28. COMPLIANCE WITH LOBBYING POLICIES

- A. CONTRACTOR agrees that if it is a Lobbyist Employer or if it has retained a Lobbying Firm or Lobbyist, as such terms are defined by OMNITRANS in its Ethics Policy, it shall comply or ensure that its Lobbying Firm and Lobbyist complies with OMNITRANS' Ethics Policy.
- B. If CONTRACTOR (Lobbyist Employer) or its Lobbying Firm or Lobbyist fails to comply, in whole or in part, with OMNITRANS' Ethics Policy, such failure shall be considered a material breach of this Agreement and OMNITRANS shall have the right to immediately terminate or suspend this Agreement.

29. PUBLIC RECORDS ACT

- A. All records, documents, drawings, plans, specifications and other material relating to conduct of OMNITRANS' business, including materials submitted by CONTRACTOR in its proposal and during the course of performing the Work under this Agreement, shall become the exclusive property of OMNITRANS and may be deemed public records. Said materials may be subject to the provisions of the California Public Records Act. OMNITRANS' use and disclosure of its records are governed by this Act.
- B. OMNITRANS will not advise as to the nature or content of documents entitled to protection from disclosure under the California Public Records Act, including interpretations of the Act or the definitions of trade secret, confidential or proprietary. OMNITRANS will accept materials clearly and prominently labeled "TRADE SECRET" or "CONFIDENTIAL" or "PROPRIETARY" as determined by CONTRACTOR. OMNITRANS will endeavor to notify CONTRACTOR of any request of the disclosure of such materials. Under no circumstances, however, will OMNITRANS be liable or responsible for the disclosure of any labeled materials whether the disclosure is required by law or a court order or occurs through inadvertence, mistake or negligence on the part of OMNITRANS or its officers, employees and/or contractors.

- C. In the event of litigation concerning the disclosure of any material submitted by CONTRACTOR, OMNITRANS' sole involvement will be as a stake holder, retaining the material until otherwise ordered by a court. CONTRACTOR, at its sole expense and risk, shall be responsible for prosecuting or defending any action concerning the materials, and shall defend, indemnify and hold OMNITRANS harmless from all costs and expenses, including attorneys' fees, in connection with such action.

30. WAIVER/INVALIDITY

No waiver of a breach of any provision of this Agreement by either party shall constitute a waiver of any other breach of the provision, or of any other breach of the provision of the Agreement. Failure of either party to enforce any provision of this Agreement at any time shall not be construed as a waiver of that provision.

The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision.

31. FORCE MAJEURE

Performance of each and all CONTRACTOR's and OMNITRANS' covenants herein shall be subject to such delays as may occur without CONTRACTOR's or OMNITRANS' fault from acts of God, strikes, riots, or from other similar causes beyond CONTRACTOR's or OMNITRANS' control.

32. CONFIDENTIALITY

CONTRACTOR agrees that for and during the entire term of this Agreement, any information, data, figures, records, findings and the like received or generated by CONTRACTOR in the performance of this Agreement, shall be considered and kept as the private and privileged records of OMNITRANS and will not be divulged to any person, firm, corporation, or other entity except on the direct prior written authorization of OMNITRANS. Further, upon expiration or termination of this Agreement for any reason, CONTRACTOR agrees that it will continue to treat as private and privileged any information, data, figures, records, findings and the like, and will not release any such information to any person, firm, corporation or other entity, either by statement, deposition, or as a witness, except upon direct prior written authority of OMNITRANS.

33. CONTRACTOR'S INTERACTION WITH THE MEDIA AND THE PUBLIC

- A. OMNITRANS shall review and approve in writing all OMNITRANS related copy proposed to be used by CONTRACTOR for advertising or public relations purposes prior to publication. CONTRACTOR shall not allow OMNITRANS related copy to be published in its advertisements and public relations programs prior to receiving such approval. CONTRACTOR shall ensure that all published information is factual and that it does not in any

way imply that OMNITRANS endorses CONTRACTOR's firm, service, and/or product.

- B. CONTRACTOR shall refer all inquiries from the news media to OMNITRANS, and shall comply with the procedures of OMNITRANS' Public Affairs staff regarding statements to the media relating to this Agreement or the Work.
- C. If CONTRACTOR receives a complaint from a citizen or the community, CONTRACTOR shall inform OMNITRANS as soon as possible and inform OMNITRANS of any action taken to alleviate the situation.
- D. The provisions of this Article shall survive the termination or expiration of this Agreement.

34. GOVERNING LAW

The validity of this Agreement and of any of its terms or provisions, as well as the rights and duties of the parties hereunder, shall be governed by the laws of the State of California, and the proper venue of any action brought hereunder is and shall be the County of San Bernardino, California.

35. MODIFICATIONS TO AGREEMENT

Unless specified otherwise in the Agreement, this Agreement may only be modified by written mutual consent evidenced by signatures of representatives authorized to enter into and modify the Agreement. In order to be effective, amendments may require prior approval by OMNITRANS' Board of Directors, and in all instances require prior signature of an authorized representative of OMNITRANS.

36. LICENSING, PERMITS AND INSPECTION COSTS

- A. The CONTRACTOR warrants that it has all necessary licenses and permits required by the laws of the United States, State of California, and the County of San Bernardino, the Local Jurisdictions, and all other appropriate governmental agencies, and agrees to maintain these licenses and permits in effect for the duration of the Agreement. Further, FIRM warrants that its employees, agents, and contractors and subcontractors shall conduct themselves in compliance with such laws and licensure requirements including, without limitation, compliance with laws applicable to nondiscrimination, sexual harassment and ethical behavior throughout the duration of this Agreement. CONTRACTOR further warrants that it shall not retain or employ an unlicensed subcontractor to perform work on this Project. CONTRACTOR shall notify OMNITRANS immediately and in writing of its employees', agents', contractors' or subcontractors' inability to obtain or maintain, irrespective of the pendency of any appeal, any such licenses, permits, approvals, certificates, waivers, exemptions. Such inability shall be cause for termination of this Agreement.

- B. CONTRACTOR shall procure all permits and licenses; pay all charges, assessments and fees, as may be required by the ordinances and regulations of the public agencies having jurisdiction over the areas in which the work is located, and shall comply with all the terms and conditions thereof and with all lawful orders and regulations of each such public agency relating to construction operations under the jurisdiction of such agency.

37. PRECEDENCE

Conflicting provisions hereof, if any, shall prevail in the following descending order of precedence: (1) the provisions of this Agreement, and any and all of its Amendments, Appendices, Exhibits and Attachments; (2) provisions of IFB-MNT19-74 and any and all of its Addenda, Appendices, Exhibits and Attachments; and (3) CONTRACTOR's bid dated March 13, 2019 and its Appendices, Exhibits and Attachments.

38. ENTIRE AGREEMENT

This Agreement, and any attachments or documents incorporated herein by inclusion or by reference, constitutes the complete and entire agreement between OMNITRANS and CONTRACTOR and supersedes any prior representations, understandings, communications, commitments, agreements or proposals, oral or written.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed on the date shown below, and effective on the date first hereinabove written.

OMNITRANS

SUPER SWEEPERS, INC.

P. Scott Graham
CEO/General Manager

Timothy Morrison
President

Date

Date

Federal Tax I.D. No. 33-072-8587

CM



ATTACHMENT A – SCOPE OF WORK
MNT19-74
PARKING LOT SWEEPING

1. INTRODUCTION

Contractor shall furnish all necessary labor, supervision, materials, equipment, chemicals and supplies to satisfactorily perform parking lot sweeping services (and pressure washing services, where applicable).

2. GENERAL

- A. Contractor shall be responsible for disposing of all collected dirt and waste at an approved facility or landfill. Contractor shall not use any Omnitrans receptacle to dispose of any material collected during the performance of this contract. Contractor shall be held financially accountable for the disposal of any material dumped into an Omnitrans receptacle.
- B. Contractor shall ensure adequate time is scheduled for each visit to complete the requirements of this contract.
- C. Contractor shall be capable of providing additional or emergency services with 48 hours of advance notification.
- D. Contractor shall submit a Service Verification Form (SVF) to the Project Manager or designee. SVF's shall not be given to the security guards for signature as they do not have authority.
- E. Contractor shall comply with all applicable provisions in the South Coast Air Quality Management District (SCAQMD) Rule 1186 & 1186.1 and all other applicable regulations.
- F. Contractor shall abide by all safety requirements identified as listed below in Section 6. Specifications for Safety.
- G. Contractor shall provide Safety Data Sheets (SDS) to the Project Manager for each chemical used on Omnitrans' property. Omnitrans requires a two-week review period prior to the use of new chemicals. Temporary chemical substitutions are not authorized without review and approval by the Project Manager or designee.
- H. Contractor shall meet the requirements of Exhibit B – SCAQMD Rule 1186.1 – Less Polluting Sweepers or visit www.aqmd.gov.

3. EQUIPMENT REQUIREMENTS

- A. Contractor shall provide all equipment necessary to complete the requirements of this contract.
- B. Contractor shall ensure any vacuum equipment utilized is capable and rated to remove oil-soaked absorbent material, small metal objects such as nuts, bolts, or screws, gravel and granular materials, paper and lightweight trash and debris.
- C. To reduce airborne dust created when driving vacuum sweeper trucks over concrete or asphalt, each vehicle shall be equipped with and use a water spray system. Water for the system may be obtained from sources on Omnitrans property at no additional charge to the Contractor.

ATTACHMENT A – SCOPE OF WORK
MNT19-74
PARKING LOT SWEEPING

- D. Each vacuum sweeper truck or machine shall be equipped with a discharge air device to limit or prevent the generation of dust coming from the vehicle while in use on Omnitrans' property.
- E. Contractor shall be licensed, insured and registered in the State of California to operate all required vehicles.
- F. All equipment associated with the pressure washer shall be maintained in good condition and conform to any applicable Cal/OSHA Title 8 or SCAQMD regulations.
- G. Any waste water accumulated during pressure washing may be disposed in the bus wash clarifiers at each location, provided the accumulation tank on the machinery is empty when the contractor arrives to provide services. This does not apply to the sbX Corridor Park & Ride locations. Contractor is responsible for disposing of waste water, as required.

4. LOCATIONS/SCHEDULE

Contractor shall provide service at the following locations and frequencies:

- 1. East Valley
1700 West 5th Street
San Bernardino CA 92411
- 2. West Valley
4748 Arrow Highway
Montclair CA 91763
- 3. San Bernardino Para-transit
234 S. I Street
San Bernardino CA 92410
- 4. sbX Corridor Park & Ride Facilities
 - (1) The 15.7-mile corridor spans between northern San Bernardino and Loma Linda. It will include four park-and-ride facilities.
 - (2) Contractor shall provide parking lot sweeping and cleaning services at the park & ride facilities only. There are 4 park and ride facilities (Palni/Kendall, Marshall West, Marshall East, and Anderson/Redlands) See attached drawings.
- 5. San Bernardino Downtown Metrolink Station
174 South E Street
San Bernardino CA 92401
- 6. San Bernardino Transit Center
599 W. Rialto Avenue
San Bernardino, CA 92401

ATTACHMENT A – SCOPE OF WORK
MNT19-74
PARKING LOT SWEEPING

Facility / Area	Sweeping Frequency	Day of Week	Time of Day	Pressure Washing Frequency	Day of Week	Time of Day
East Valley						
Concrete Bus Yard	1 X Week	Thursday	8am – 3pm	Every 2 weeks	Friday	8am – 3pm
Asphalt Employee Parking Lot(s)	Every 2 weeks	Thursday	12 Midnight – 4am	N/A	N/A	N/A
West Valley						
Concrete Bus Yard	1 X Week	Thursday	8am – 3pm	Every 2 weeks	Friday	8am – 3pm
Asphalt Employee Parking Lot(s)	Every 2 weeks	Thursday	12 Midnight – 4am	N/A	N/A	N/A
S.B. Para-Transit						
Asphalt Bus Yard	1 X Week	Thursday	8am – 3pm	N/A	N/A	N/A
Asphalt Employee Parking Lot(s)	Every 2 weeks	Thursday	12 Midnight – 4am	N/A	N/A	N/A
Concrete:						
- Fuel Island - Front of Repair Bays	1 X Week	Thursday	8am – 3pm	Every 2 weeks	Friday	8am – 3pm
<u>sbX Park & Rides:</u>	Sweeping Frequency	Day Of Week	Time Of Day	Pressure Washing Frequency	Day Of Week	Time Of Day
1. Palm & Kendall						
2. Marshall West						
3. Marshall East						
4. Anderson/Redlands						
Asphalt Parking Lot(s)	Every 2 weeks	Thursday	12 Midnight – 4am	N/A	N/A	N/A
- Palm & Kendall - Anderson/Redlands						
Asphalt Parking Lot(s)	Every 2 weeks	Sunday	1pm – 4pm	N/A	N/A	N/A
- Marshall West - Marshall East						
Concrete Bus Way (Palm & Kendall)	Every 2 weeks	Thursday	12 Midnight – 4am	1 X Month	Friday	12 Midnight – 4am
S.B. Downtown Metrolink Station						
Asphalt Parking Lot	Every 2 weeks	Thursday	12 Midnight – 4am	N/A	N/A	N/A

ATTACHMENT A – SCOPE OF WORK
MNT19-74
PARKING LOT SWEEPING

S.B. Transit Center						
Concrete Bus Way	Every 2 weeks	Thursday	12 Midnight – 4am	1 X Month	Friday	12 Midnight – 4am

5. PERFORMANCE

Contractor shall provide the following services at each location:

1) Bus Yard Sweeping:

- a) Blow organic debris and trash from under relief cars, buses, and restrictions into an area where it can be collected by the sweeper. Use the lowest power setting possible on the blower to reduce the production of dust.
- b) Sweep the designated bus parking areas, the area around the relief cars and around all buildings located within the bus yard, such as the Maintenance building, Fuel Island, Bus Wash, and Liquefied Compressed Natural Gas building.

2) Employee Parking Lot Sweeping:

- a) Blow organic debris and trash away from curbs and restrictions into an area where it can be collected by the sweeper. Use the lowest power setting possible on the blower to reduce the production of dust.
- b) Sweep employee parking areas.

3) sbX Corridor Park & Rides Sweeping:

- a) Blow organic debris and trash away from curbs and restrictions into an area where it can be collected by the sweeper. Use the lowest power setting possible on the blower to reduce the production of dust.
- b) Sweep Park & Ride parking lot.

4) Bus Yards and sbX Park & Ride Driveways & Drives Pressure Washing:

- a) Remove oil stains and residues from the bus parking stalls, driveways, and gutters using a pressure washer. The water may only contain chemicals that have been approved by Omnitrans. All waste water and leakage from contractor's machinery must be collected for disposal and not allowed to enter any storm drains located on the property. Vehicles may be moved at the contractor's request to complete the job.
- b) Remove oil and grease from concrete areas of each building perimeter out to 10 feet by pressure washing. All waste water and leakage from the contractor's machinery must be collected for disposal and not allowed to enter the storm drains on the property.
- c) Remove oil, grease, and chewing gum from the bus ways and walkways in and around the buildings.

5) Asphalt Parking Lot Cleaning:

Employee parking lots & sbX Corridor Park & Rides.

ATTACHMENT A – SCOPE OF WORK
MNT19-74
PARKING LOT SWEEPING

- a) Remove oil stains and residues from parking stalls and driveways. Use a deck brush and/or commercial asphalt cleaner or trisodium phosphate (TSP) to wash dirt, oil, and other automotive fluids off blacktop areas.

6. SPECIFICATIONS FOR SAFETY

A. This section covers general safety requirements. Contractor shall perform the following tasks as required.

- 1) Protect premises, workers, the public, Omnitrans' employees, Omnitrans' equipment, and Contractor's employees from work hazards.
- 2) Adhere to fitness for duty requirements, appropriate work attire, and work area cleanliness.
- 3) Enforce safety and security of each work site.
- 4) Protect all open excavation areas with caution tape, security fence, and/or barricades.
- 5) Plan and perform all work in a manner that will provide hazard-free work areas for Omnitrans personnel.
- 6) Provide and post signs, place barricades and similar safe guards to direct traffic away from the site of work.
- 7) Remove barricades when area is capable of receiving traffic.
- 8) Ensure electricity is properly grounded and all precautions are taken to prevent any chance of electrical shock or spark.
- 9) Provide fire protection for contractor's materials, facilities, and equipment. No fire protection equipment or personnel shall be provided by Omnitrans.
- 10) Adhere to all safety requirements as required by regulatory agencies and industry safety standards, whichever is most stringent.

7. WORKPLACE SAFETY

Contractor shall ensure all operations strictly adhere to all Federal, State, and Local safety and environmental laws and regulations. Omnitrans reserves the right to correct unsafe practices by the contractor's employees, or to stop work until the contractor makes the necessary corrections. In addition:

A. Smoking

Omnitrans uses designated areas for smoking. Smoking is not allowed at any time in the bus yard, on or in any buildings, or near entrances to any buildings. Smoking by employees of the contractor, or sub-contractors, shall not create a hazardous condition for themselves, co-workers, or employees and property of Omnitrans.

B. Eye Protection

- 6) Per Omnitrans eye protection policy, ANSI Z87 approved eye protection shall be worn by all persons while conducting business outside the boundaries of the established "green zone". The policy also requires that eye protection be utilized if hazardous work is being conducted within the

ATTACHMENT A – SCOPE OF WORK
MNT19-74
PARKING LOT SWEEPING

“green zone”. Contractor shall ensure all of its employees are provided with eye protection that meet the requirement.

- 7) The project manager, or designee, reserves the right to stop the contractor’s work in the event that a contractor employee is in violation, and all work will remain stopped until the violation is corrected.

C. Vests

- 1) Contractors and their employees working or performing services in outside work zones shall wear ANSI Class 2 Safety Vests. ANSI Class 2 Safety Vests must be worn at all times in the bus yard and in the relief vehicle locations.
- 2) Safety Vests are not required while in designated areas marked with painted green borders in Safety Zones on Omnitrans property or while on sidewalks, curbs, or raised pavement.

Attachment(s):

Exhibit A – Revised, Sample Service Verification Form
Exhibit B – Less Polluting Sweepers
Exhibit C – Anderson Redlands Blvd Park and Ride
Exhibit D – Marshall E-Street West Park and Ride
Exhibit E – Palm Kendall Park and Ride
Exhibit F – Aerial Views of Omnitrans locations



Check Location Serviced:

Complete the following information:

I Street	Date:
Montclair	Time In: Time Out:
San Bernardino	Vendor Name:
Other:	Tech Name(s):

Check each item completed as per Scope of Work on Contract _____. Frequency of service is specified as follows: (w) weekly, (b) bi-weekly, or (m) monthly or (o) other.

☒	W/B/M	SCOPE OF WORK
	W	Sweep employee parking lots (including all entrances), service lots, and bus yard - Litter on pavement under and around buses and/or cars shall be moved by blowers into open area and collected by the sweeper. - Trash and Debris from the sweeping operations shall be removed from the premises and disposed of legally.
	B	Steam clean employee parking lots and annex lots (including all entrances), clean bus service lot and bus yard. - Remove oil stains and all oil residues from bus parking stalls, driveways and gutters by pressure washing or other suitable means. (Note: all wastewater must be vacuumed up and not allowed to enter storm drain system. Wastewater can be disposed of in Omnitrans clarifiers.) - Remove oil, grease, and gum from bus ways and walk ways at fuel-island by pressure washing or other suitable means. (Note: the drains at the fuel island go to a clarifier so wastewater will not need to be picked up.)
	O	Additional sweeping or steam cleaning services within 48-hours notice for Omnitrans Events.
	O	Other (Please Specify):

All work will be inspected and approved by the Maintenance Facility Manager or his designee(s).

Vendor Representative Signature

Omnitrans Representative



Check Location Serviced:

Complete the following information:

I Street	Date:
Montclair	Time In: Time Out:
San Bernardino	Vendor Name:
Other:	Tech Name(s):

Check each item completed as per Scope of Work on Contract _____. Frequency of service is specified as follows: (w) weekly, (b) bi-weekly, or (m) monthly or (o) other.

☒	W/B/M	SCOPE OF WORK
	W	Sweep employee parking lots (including all entrances), service lots, and bus yard - Litter on pavement under and around buses and/or cars shall be moved by blowers into open area and collected by the sweeper. - Trash and Debris from the sweeping operations shall be removed from the premises and disposed of legally.
	B	Steam clean employee parking lots and annex lots (including all entrances), clean bus service lot and bus yard. - Remove oil stains and all oil residues from bus parking stalls, driveways and gutters by pressure washing or other suitable means. (Note: all wastewater must be vacuumed up and not allowed to enter storm drain system. Wastewater can be disposed of in Omnitrans clarifiers.) - Remove oil, grease, and gum from bus ways and walk ways at fuel-island by pressure washing or other suitable means. (Note: the drains at the fuel island go to a clarifier so wastewater will not need to be picked up.)
	O	Additional sweeping or steam cleaning services within 48-hours notice for Omnitrans Events.
	O	Other (Please Specify):

All work will be inspected and approved by the Maintenance Facility Manager or his designee(s).

Vendor Representative Signature

Omnitrans Representative

EXHIBIT B - LESS POLLUTING SWEEPERS
MNT19-74
PARKING LOT SWEEPING

(Adopted August 18, 2000)(Amended June 4, 2004)
(Amended September 9, 2005)(Amended May 5, 2006)
(Amended June 6, 2008)(Amended January 9, 2009)

RULE 1186.1. LESS-POLLUTING SWEEPERS

(a) Purpose

To reduce air toxic and criteria pollutant emissions, this rule requires certain public and private sweeper fleet operators to acquire and operate alternative-fuel or otherwise less-polluting sweepers when purchasing or leasing these vehicles for sweeping operations undertaken by or for governments or governmental agencies in the jurisdiction of the South Coast Air Quality Management District (District).

(b) Applicability

- (1) This rule applies to any federal, state, county, city or governmental department or agency, any special district such as water, air, sanitation, transit, and school districts, or private individual firm, association, franchise, contractor, user or owner who provides sweeping services to a governmental agency that owns or leases 15 or more vehicles, including passenger cars, light-duty trucks, and medium- and heavy-duty on-road vehicles, but excluding those vehicles exempt as defined by Rule 1191 paragraph (f)(1).
- (2) Sweepers having a gross vehicle weight of 14,000 pounds or more are subject to this rule.

(c) Definitions

For purposes of this rule, the following definitions shall apply:

- (1) AFFECTED GOVERNMENTAL AGENCY means any governmental agency in the District's jurisdiction that owns or leases 15 or more vehicles, including passenger cars, light-duty trucks, and medium- and heavy-duty on-road vehicles, or contracts for sweeping services, excluding those exempt as defined by Rule 1191 paragraph (f)(1).
- (2) ALTERNATIVE-FUEL SWEEPER means a sweeper with engine(s) that use compressed or liquefied natural gas, liquefied petroleum gas (propane), methanol, electricity, or fuel cells. Hybrid-electric and dual-

EXHIBIT B - LESS POLLUTING SWEEPERS
MNT19-74
PARKING LOT SWEEPING

fuel technologies that use diesel fuel are not considered alternative-fuel technologies for the purposes of this rule.

- (3) APPROVED CONTROL DEVICE(S) is a California Air Resources Board (CARB)-certified exhaust control device(s) that reduces particulates and possibly other precursor emissions. To be considered fitted with approved control device(s), all diesel exhaust from the sweeper, including the auxiliary engine (if applicable) must be vented through such a device(s) that have been certified by CARB at the time of vehicle purchase.
- (4) FLEET OPERATOR is any federal, state, county, city, or governmental department or agency, any special district such as water, air, sanitation, transit, and school districts, or private individual firm, association, franchise, contractor, user or owner who provides sweeping services to a governmental agency that owns or leases 15 or more vehicles, including passenger cars, light-duty trucks, and medium- and heavy-duty on-road vehicles, excluding those exempt as defined by Rule 1191 paragraph (f)(1).
- (5) GOVERNMENTAL AGENCY include any federal, state, regional, county, city, or governmental department and agency, and any special district such as water, air, sanitation, transit, and school districts. See AFFECTED GOVERNMENTAL AGENCY.
- (6) LOW-SULFUR DIESEL FUEL means diesel fuel that has a maximum sulfur content of 15 parts per million (ppm). The use of low-sulfur diesel fuel improves the performance of and may be necessary for the use of advanced exhaust control devices.
- (7) PURCHASE OR LEASE means that a purchase or lease contract has been signed by both parties for a sweeper to be delivered within 1 year of the purchase or lease contract date, which is the date the contract is signed by both parties.
- (8) SWEEPER means any heavy-duty vehicle with a gross vehicle weight of 14,000 pounds or more that is permitted to operate on public roads through California Department of Motor Vehicle registration or the federal government and used for the express purpose of removing material from paved surfaces, by mechanical means through the action of one or more brooms, or by suction through a vacuum or regenerative air system or any combination of the above.

EXHIBIT B - LESS POLLUTING SWEEPERS
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(9) SWEEPING OPERATIONS means operations to remove material from paved surfaces using sweeper(s), as defined by this rule.

(d) Requirements

For Fleet Operators:

(1) Beginning July 1, 2002, a fleet operator shall meet the following conditions for each individual purchase or lease of a replacement or additional sweeper:

- (A) Purchase or lease an alternative-fuel sweeper, OR
- (B) Provide alternative-fuel sweeping services where required under contract with a government agency, pursuant to subparagraphs (d)(2)(A) and (d)(2)(B).
- (C) Before July 1, 2010, if the fleet operator has an approved Technical Infeasibility Certification for this individual purchase or lease, as described in subdivision (e),
 - (i) purchase or lease a non-alternative fueled sweeper with all applicable approved control device(s), and
 - (ii) maintain the approved control device(s) per manufacturer's specifications, and
 - (iii) if using diesel fuel, fuel the sweeper with low-sulfur diesel fuel only, and
 - (iv) comply with Rule 1186 without invoking the exemption provision in Rule 1186 paragraph (i)(3), unless a demonstration is made to the Executive Officer that for solely technical reasons no certified sweeper, as defined in Rule 1186 paragraph (c)(2), is commercially available.
- (D) Failure to use alternative-fuel sweepers where required under contract with a government agency shall be a violation of this rule for each day that the street sweeping services are provided.

For Affected Governmental Agencies Contracting for Sweeping Services:

- (2) Any affected governmental agency that signs a contract after July 1, 2002 for sweeping services must:
 - (A) Contract for sweeping services that use alternative-fuel sweeper(s), OR
 - (B) Solicit bids for sweeping operations using alternative-fuel sweepers and if no bids are submitted:

EXHIBIT B - LESS POLLUTING SWEEPERS

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PARKING LOT SWEEPING

- (i) Contract for non-alternative fueled sweeper(s) and ensure that the sweeper(s) are only fueled with low-sulfur diesel and outfitted with approved control device(s) that are installed and maintained per the manufacturer's specifications, and
 - (ii) Contract for sweeper(s) that comply with Rule 1186, unless a demonstration is made to the Executive Officer that for solely technical reasons no certified sweeper, as defined in Rule 1186 paragraph (c)(2), is commercially available.
- (3) After January 1, 2003, any renewal or extension option of a contract is considered a new contract that must meet the requirements of paragraph (d)(2).
- (4) Pursuant to paragraph (d)(2), alternative-fuel sweepers shall be used for the entire term of the contract. If alternative-fuel sweepers are not available at the beginning of the contract due to the date of delivery, the affected government agency shall submit a signed and dated Technical Infeasibility Certification Request to the Executive Officer prior to the award of the contract demonstrating the unavailability of alternative-fuel sweeper service for the period of time during which alternative-fuel sweepers are to be delivered.
- (e) Technical Infeasibility Certification Criteria and Procedures
 - (1) Six months prior to the date of purchase or lease of a replacement or additional sweeper, any fleet operator seeking to comply with subdivision (d) without purchasing or leasing an alternate-fuel sweeper [i.e., opting to comply with paragraph (d)(2)], shall demonstrate the technical infeasibility of complying with paragraph (d)(1) requirements by submitting a signed and dated Technical Infeasibility Certification Request to the Executive Officer and attest to the accuracy of all statements therein, that shall include:
 - (A) the name and address of the fleet operator; and
 - (B) current sweeper fleet composition, including make, model, and a complete description of the sweepers' dust suppression systems; and
 - (C) demonstration that no alternative-fuel engine and chassis configuration is commercially available from any manufacturer for sweeping operations conducted by the fleet operator (only technical

EXHIBIT B - LESS POLLUTING SWEEPERS
MNT19-74
PARKING LOT SWEEPING

reasons for choosing a given chassis configuration are acceptable),
OR

- (D) demonstration that a fueling station for alternative-fuel sweepers commercially available from any manufacturer for sweeping operations conducted by the fleet operator is not available within five miles of the vehicle storage or maintenance yards.
- (2) Within 90 calendar days of receipt of a completed Technical Infeasibility Certification Request submitted pursuant to paragraph (e)(1), the Executive Officer will either approve or disapprove the Request, in writing.
- (3) The Executive Officer shall disapprove a Technical Infeasibility Certification Request if it does not meet the requirements of paragraph (e)(1). If a Technical Infeasibility Certification Request is disapproved by the Executive Officer:
 - (A) The reasons for disapproval shall be given to the applicant in writing.
 - (B) Upon receipt of a notice of a disapproved Technical Infeasibility Certification Request, the fleet operator shall comply with paragraph (d)(1).
 - (C) The fleet operator may resubmit a Technical Infeasibility Certification Request at any time after receiving a disapproval notification, but must still comply with paragraph (d)(1) until such time as the Executive Officer approves a Technical Infeasibility Certification Request under paragraph (e)(1).
- (4) A Technical Infeasibility Certification Request is subject to plan filing and evaluation fees as described in Rule 306.

(f) Exemptions

- (1) The provisions of this rule shall not apply to fleets consisting of evaluation/test vehicles, provided by or operated by the vehicle manufacturer or manufacturer representative for testing or evaluation, exclusively.
- (2) The provisions of subdivision (d) shall not apply to a sweeper purchase by a fleet operator that is solely dedicated to serving governmental agencies that are not subject to this rule, upon demonstration to and approval of the Executive Officer.

EXHIBIT B - LESS POLLUTING SWEEPERS

MNT19-74

Rule 1186.1 (cont.)

PARKING LOT SWEEPING ~~Repealed~~ **Amended January 9, 2009)**

(g) Compliance Auditing and Enforcement

- (1) At the request of the Executive Officer, the fleet operator shall provide the purchase, lease, or contract records for their sweepers to demonstrate compliance with subdivision (d).
- (2) At the request of the Executive Officer, any fleet operator claiming an exemption under subdivision (f) shall supply proof that their sweeper or fleet is exempted from this rule.

(h) Severability

If any provision of this rule is held by judicial order to be invalid, or invalid or inapplicable to any person or circumstance, such order shall not affect the validity of the remainder of this rule, or the validity or applicability of such provision to other persons or circumstances. In the event any of the exceptions to this rule is held by judicial order to be invalid, the persons or circumstances covered by the exception shall instead be required to comply with the remainder of this rule.

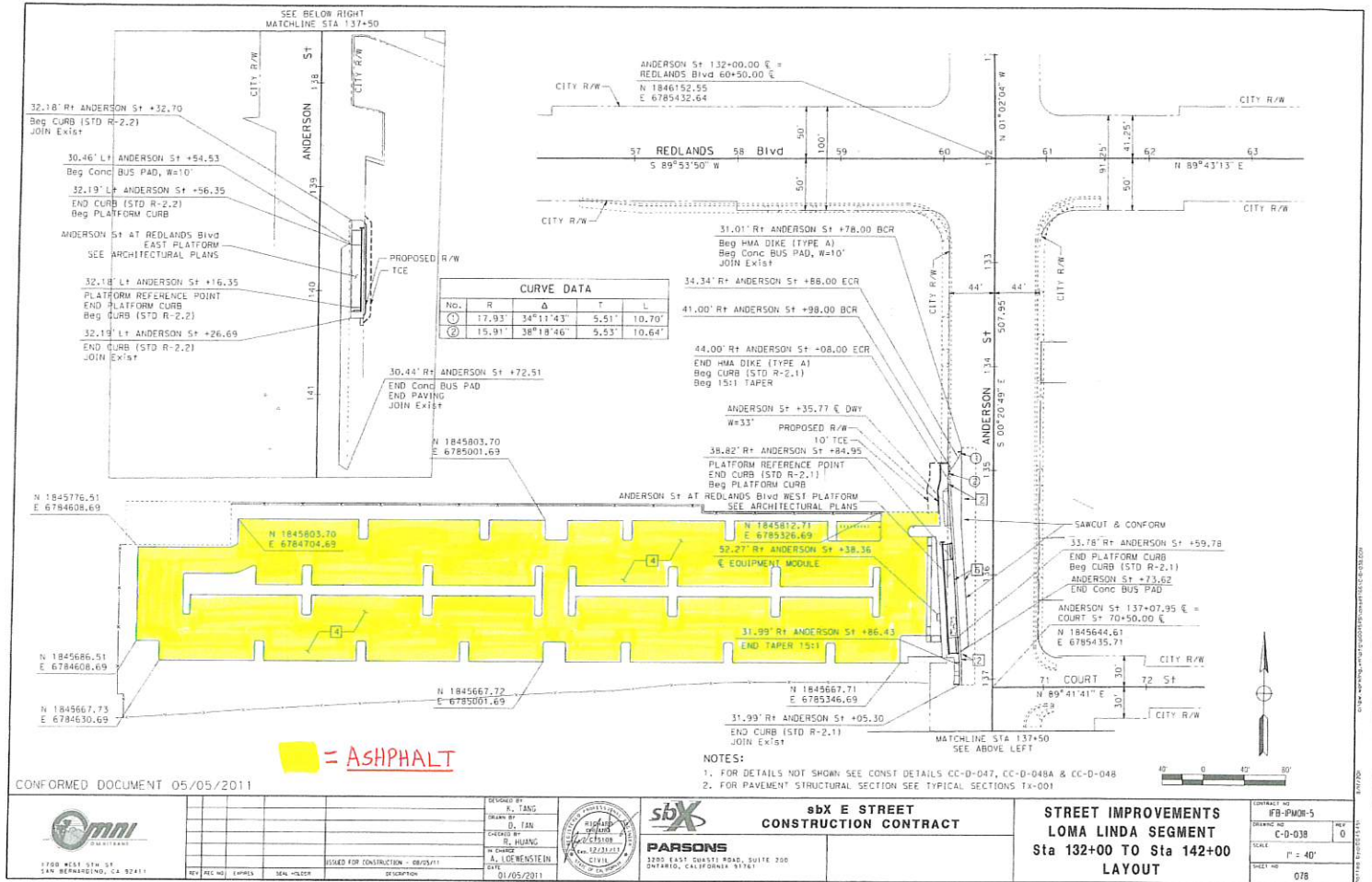
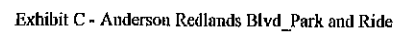
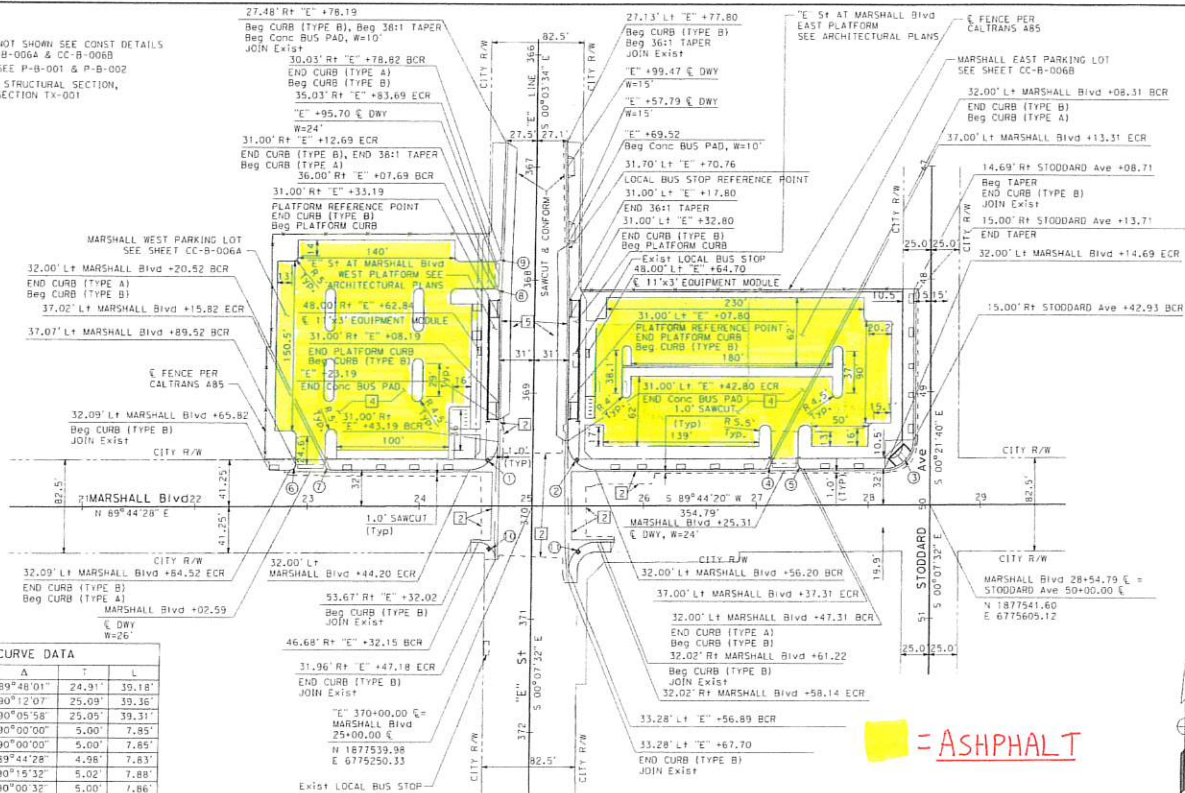


Exhibit C - Anderson Redlands Blvd Park and Ride



NOTES:

1. FOR DETAILS NOT SHOWN SEE CONST DETAILS
CC-B-006, CC-B-006A & CC-B-006B
2. FOR PROFILE SEE P-B-001 & P-B-002
3. FOR PAVEMENT STRUCTURAL SECTION,
SEE TYPICAL SECTION TX-001



CURVE DATA

NO.	R	Δ	T	L
①	25.00'	89°48'01"	24.91'	39.18'
②	25.00'	90°12'07"	25.09'	39.36'
③	25.00'	90°05'58"	25.09'	39.31'
④	5.00'	90°00'00"	5.00'	7.85'
⑤	5.00'	90°00'00"	5.00'	7.85'
⑥	5.00'	89°44'28"	4.98'	7.83'
⑦	5.00'	90°15'32"	5.02'	7.88'
⑧	5.00'	90°00'32"	5.00'	7.86'
⑨	5.00'	88°31'26"	4.87'	7.73'
⑩	15.00'	89°02'37"	14.75'	23.31'
⑪	25.00'	89°51'52"	24.79'	39.21'

CONFORMED DOCUMENT 05/05/2011



1700 WEST 5TH ST
SAN BERNARDINO, CA 92411

DESIGNED BY
K. TANG

CHECKED BY
A. LEE

IN CHARGE
D. LOEWENSTEIN

DATE
01/05/2011



PARSONS

3200 EAST QUINCY ROAD, SUITE 200
ONTARIO, CALIFORNIA 91767

sbx E STREET CONSTRUCTION CONTRACT

APPROVED: [Signature] DATE: 05/05/2011

DATE: 05/05/2011

STREET IMPROVEMENTS "E" STREET SEGMENT Sta 366+00 TO Sta 372+00 LAYOUT

CONTRACT NO.	FB-PM01-5
DATE OF CONTRACT	C-B-006
SCALE	1" = 40'
SHEET NO.	046

EXHIBIT D - MARSHALL E-STREET WEST PARK RIDES

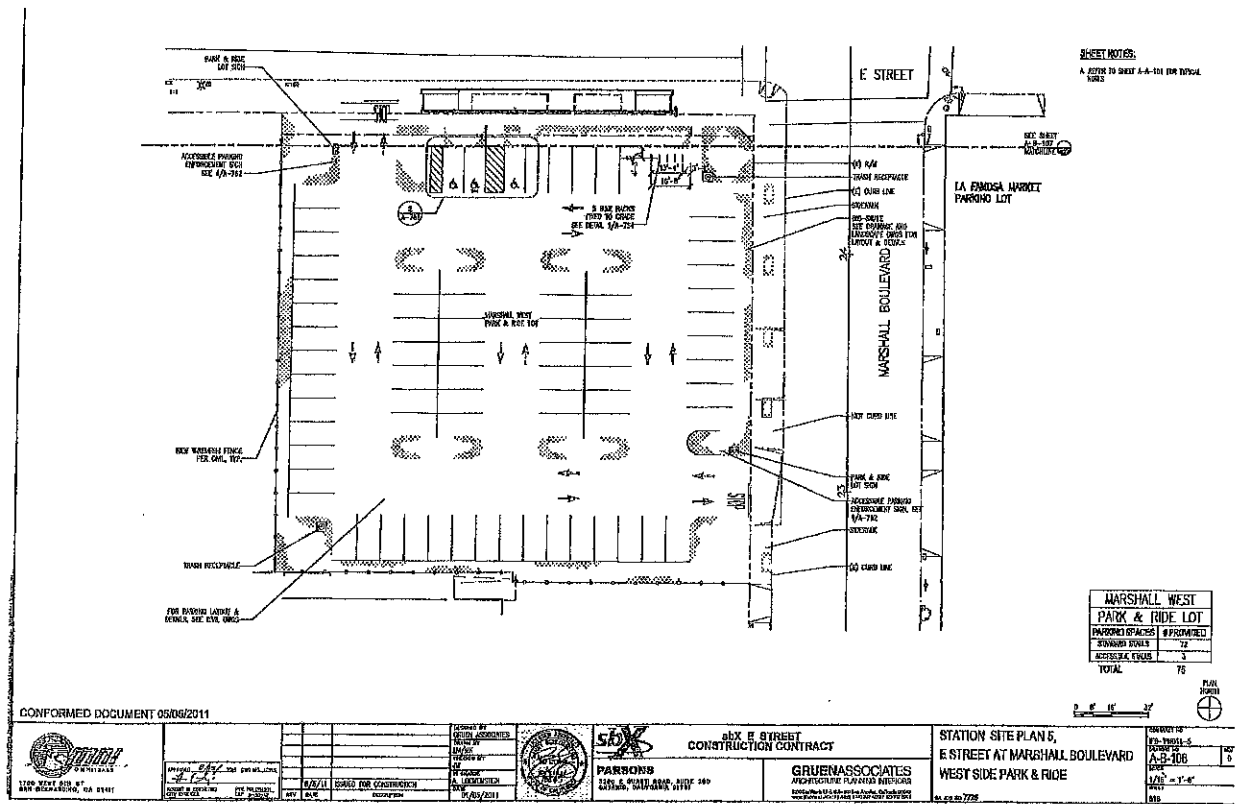


EXHIBIT D - MARSHALL E-STREET WEST PARK RIDES

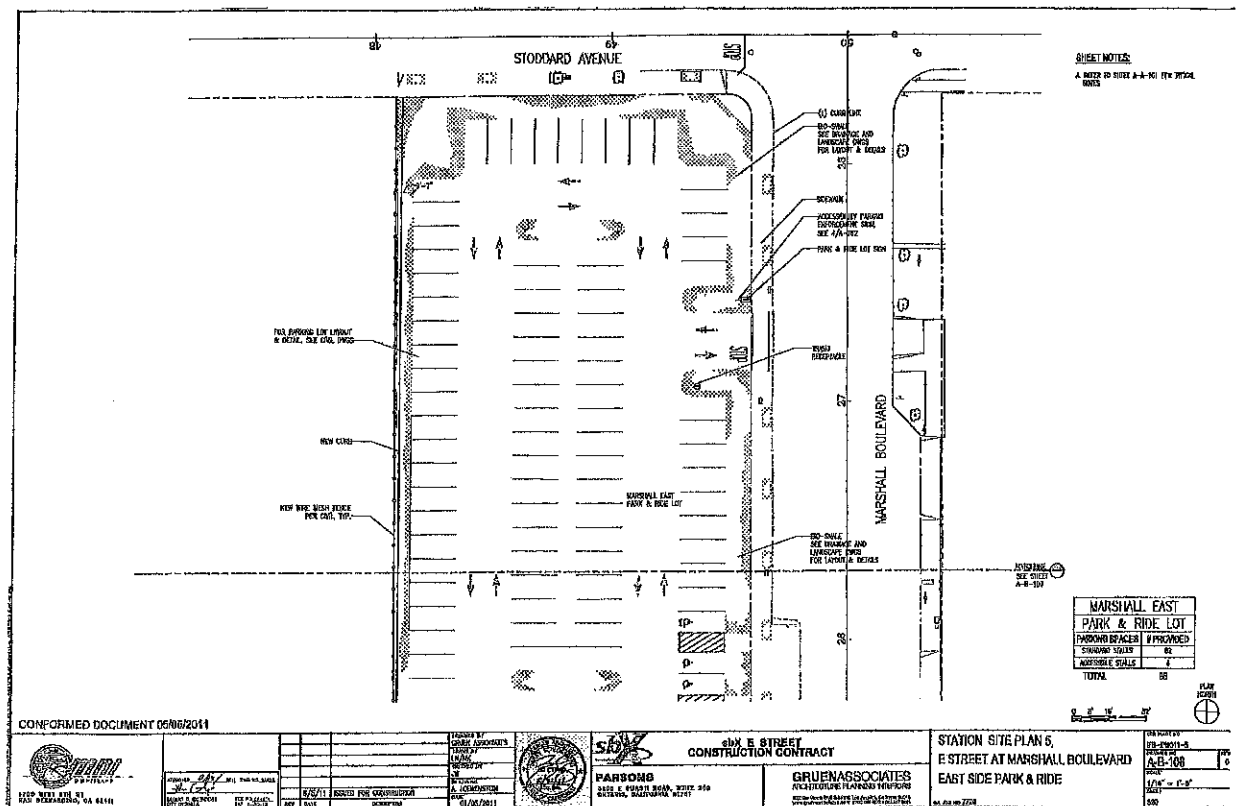
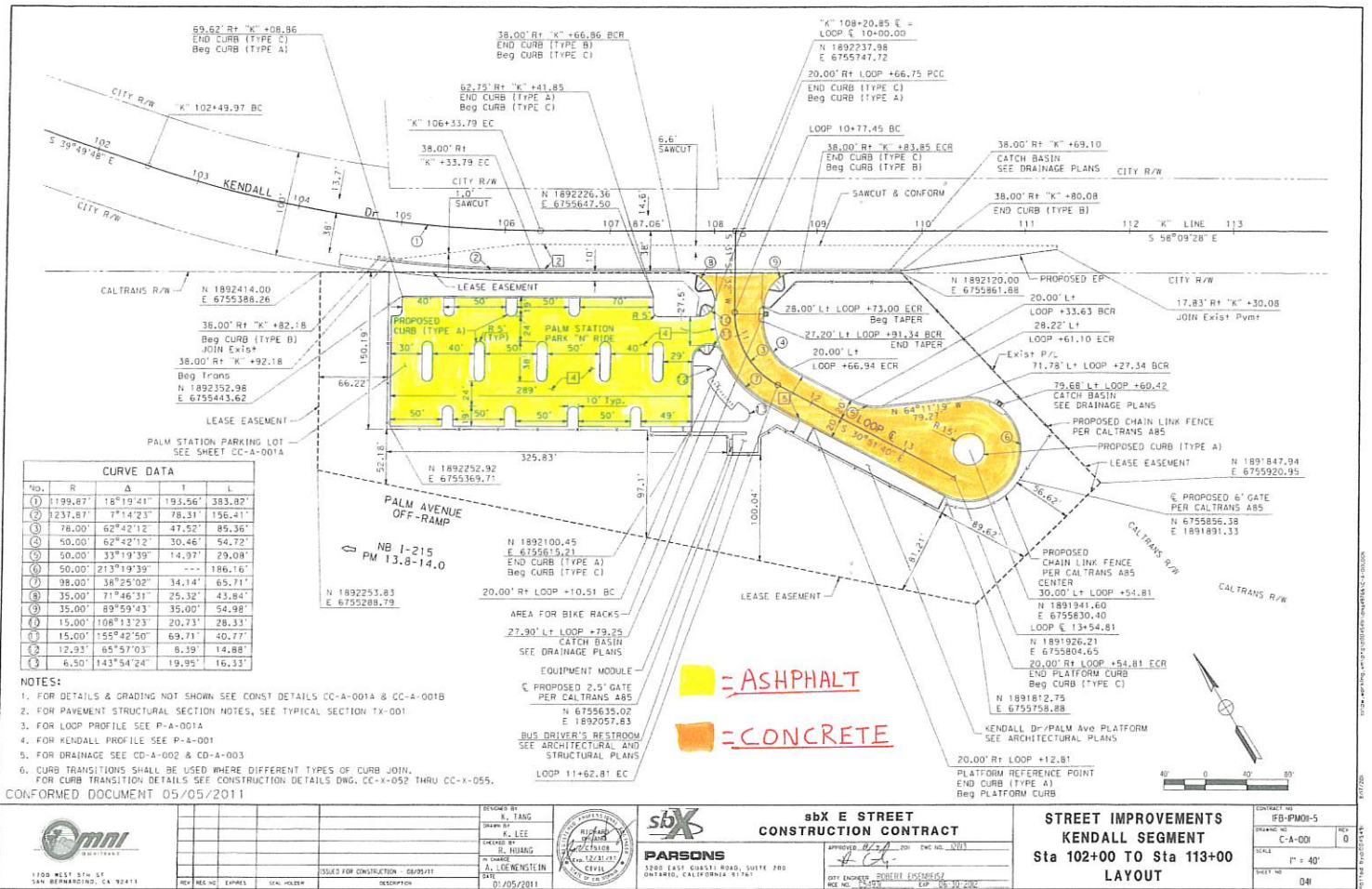


EXHIBIT D - MARSHALL E-STREET WEST PARK RIDES



Omnitrans East Valley

1700 West 5th St, San Bernardino, CA 92411, 12.05 Acres

EXHIBIT A



Omnitrans West Valley

4748 Arrow Highway, Montclair, CA 91763, 5.5 Acres



Omnitrans - San Bernardino Para-transit

234 South I-St, San Bernardino, CA 92410, 3.28 Acres



Omnitrans – sbX Park & Ride / Palm & Kendall

3165 Kendall Dr, San Bernardino, CA 92407, 1.5 Acres



Omnitrans – sbX Park & Ride / Anderson/Redlands

10546 Anderson St, Loma Linda, Ca 92354 2.4 Acres



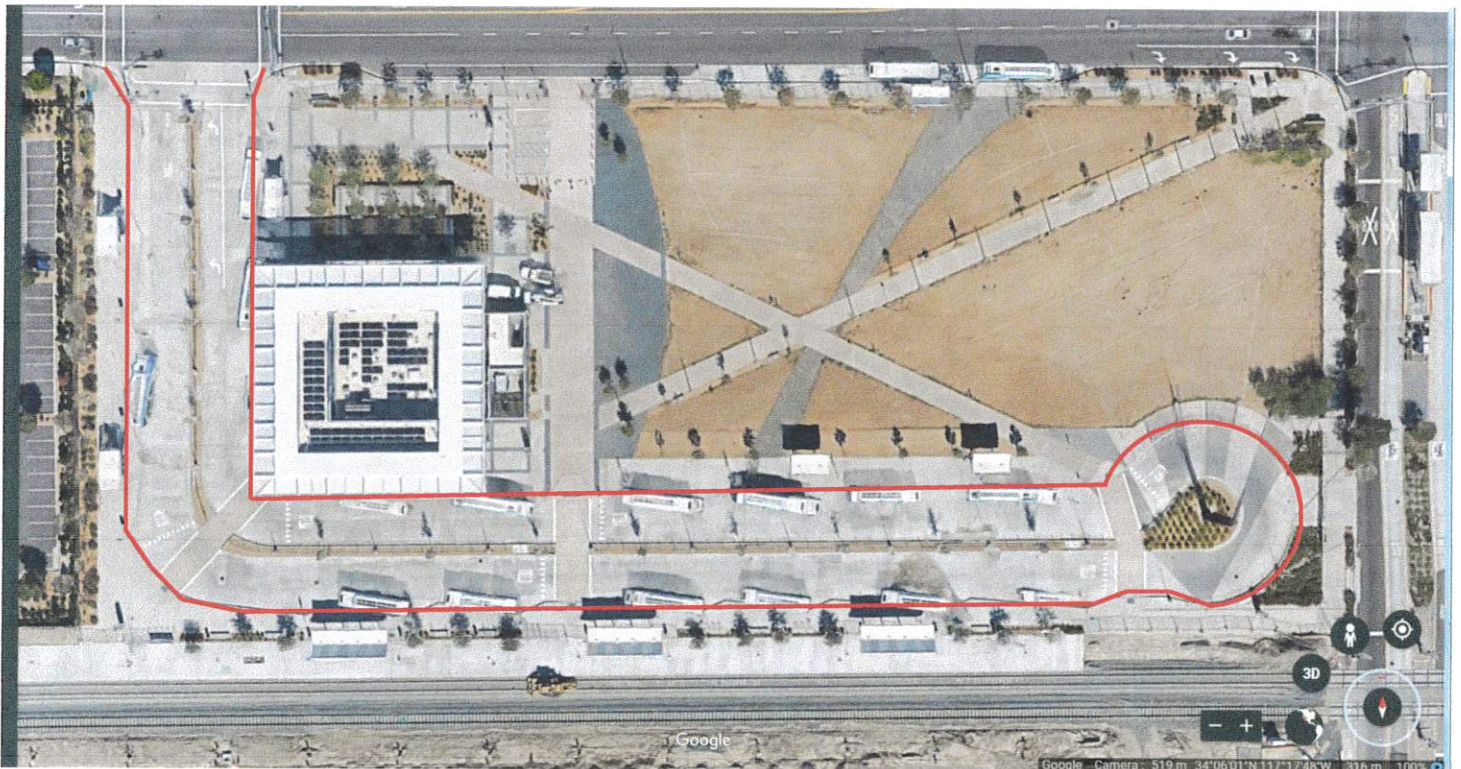
Omnitrans – sbX Park & Ride / Marshall East & West

3201 N E St, San Bernardino, CA 92405 1.7 Acres



Omnitrans – San Bernardino Transit Center

599 West Rialto Ave, CA 92401, 1.4 Acres



Attachment B

REGULATORY REQUIREMENT

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REGULATORY REQUIREMENTS

*** Marks Required Subcontract Provisions that must flow down to all subcontracts as defined in the Article entitled SUBCONTRACTORS AND SUPPLIERS herein.**

Required Clauses for All FTA-Assisted Third-Party Contracts and Subcontracts

RR-01

NO FEDERAL OBLIGATION TO THIRD PARTIES *

In connection with the Project, the Recipient agrees that, absent the Federal Government's express written consent, the Federal Government shall not be subject to any obligations or liabilities to any subrecipient, lessee, third party contractor, or other participant at any tier of the Project, or other person or entity that is not a party to the Grant Agreement or Cooperative Agreement for the Project. Notwithstanding that the Federal Government may have concurred in or approved any solicitation, subagreement, lease, third party contract, or arrangement at any tier, the Federal Government has no obligations or liabilities to any entity other than the Recipient, including any subrecipient, lessee, third party contractor, or other participant at any tier of the Project.

RR-02

FALSE OR FRAUDULENT STATEMENTS OR CLAIMS – CIVIL AND CRIMINAL FRAUD *

A. Civil Fraud.

The Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 et seq., and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to the Recipient's activities in connection with the Project. By executing the Grant Agreement or Cooperative Agreement for the Project, the Recipient certifies or affirms the truthfulness and accuracy of each statement it has made, it makes, or it may make in connection with the Project. In addition to other penalties that may apply, the Recipient also acknowledges that if it makes a false, fictitious, or fraudulent claim, statement, submission, certification, assurance, or representation to the Federal Government, the Federal Government reserves the right to impose on the Recipient the penalties of the Program Fraud Civil Remedies Act of 1986, as amended, to the extent the Federal Government deems appropriate.

B. Criminal Fraud.

If the Recipient makes a false, fictitious, or fraudulent claim, statement, submission, certification, assurance, or representation to the Federal Government or includes a false, fictitious, or fraudulent statement or representation in any agreement with the Federal Government in connection with a Project authorized under 49 U.S.C. chapter 53 or any other Federal law, the Federal Government reserves the right to impose on the Recipient

the penalties of 49 U.S.C. § 5323(l), 18 U.S.C. § 1001, or other applicable Federal law to the extent the Federal Government deems appropriate.

- C. Contractor shall include this Article in each subcontract financed in whole or in part with Federal assistance provided by FTA. Contractor shall not modify the Article, except to identify the Subcontractor who will be subject to the provisions.

RR-03

ACCESS TO THIRD PARTY CONTRACT RECORDS *

- A. Access to Third Party Contract Records.

The Recipient agrees to require, and assures that its subrecipients require, their third party contractors and third party subcontractors at each tier to provide to the U.S. Secretary of Transportation and the Comptroller General of the United States or their duly authorized representatives, access to all third party contract records as required by 49 U.S.C. § 5325(g). The Recipient further agrees to require, and assures that its subrecipients require, their third party contractors and third party subcontractors, at each tier, to provide sufficient access to third party procurement records as needed for compliance with Federal laws and regulations or to assure proper Project management as determined by FTA.

Contractor agrees to provide Omnitrans, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this Contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 C. F. R. 633.17 to provide the FTA Administrator or the FTA's authorized representatives, including any FTA Project Management Oversight Contractor, access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a) 1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.

- B. If this Contract is for a capital project or improvement (defined at 49 U.S.C. 5302(a) 1) and was entered in to through other than competitive bidding, the Contractor shall make records related to this Contract available to Omnitrans, the Secretary of Transportation and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.
- C. Contractor shall maintain all books, records, accounts and reports required under this Contract for a period of not less than three years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of claims arising from the performance of this Contract, in which case Contractor agrees to maintain same until Omnitrans, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto.

RR-04

FEDERAL FUNDING, INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS, AND FEDERAL CHANGES

- A. This Contract includes, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the Contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, dated November 1, 2008 and revised March 18, 2013 (including any changes), and are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Contract. Contractor shall not perform any act, fail to perform any act, or refuse to comply with any Omnitrans requests which would cause Omnitrans to be in violation of the FTA terms and conditions.
- B. Federal Transit Administration of the US Department of Transportation and all laws, regulations, guidelines, and provisions of the financial assistance agreement apply to this Contract and are incorporated by reference as if fully set forth herein.
- C. Contractor shall at all times comply with all applicable federal laws and regulations, including without limitation FTA regulations, policies, procedures and directives, including those listed directly or by reference in Applicable Grant Agreements between Omnitrans and FTA, as they may be amended or promulgated from time to time during the term of this Contract collectively "Federal Requirements". These Federal Requirements may change and the changed Federal Requirements will apply to this Contract as required unless the Federal Government determines otherwise. Contractor's failure to so comply with the Federal Requirements shall constitute a material breach of this Contract.

RR-05

CIVIL RIGHTS REQUIREMENTS (TITLE VI, ADA, EEO (EXCEPT SPECIAL DOL CONSTRUCTION CLAUSE *

- A. Nondiscrimination - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, Contractor shall not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, Contractor shall comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.
- B. Equal Employment Opportunity
 - (a) Race, Color, Creed, National Origin, Sex - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, Contractor shall comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of

Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 et seq. , (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect activities undertaken in the course of the Contract. Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, Contractor shall comply with any implementing requirements FTA may issue.

- (b) Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § 623 and Federal transit law at 49 U.S.C. § 5332, Contractor shall refrain from discrimination against present and prospective employees for reason of age. In addition, Contractor shall comply with any implementing requirements FTA may issue.
- (c) Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, Contractor shall comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, Contractor shall comply with any implementing requirements FTA may issue.
- (d) Contractor shall include these requirements in each subcontract, modified only if necessary to identify parties, as required by Federal regulations.

RR-06

DISADVANTAGED BUSINESS ENTERPRISE (DBE) 49 CFR Part 26

Disadvantaged Business Enterprises

- A. This Contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, *Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs*. The agency's overall goal for DBE participation is 1%.
- B. Contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this DOT-assisted Contract. Failure by Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as Omnitrans deems

appropriate. Each subcontract Contractor signs with a subcontractor must include the assurance in this paragraph (*see* 49 CFR 26.13(b)).

- C. Bidders are required to document sufficient DBE participation to meet these goals or, alternatively, document adequate good faith efforts to do so, as provided for in 49 CFR 26.53. Award of this contract is conditioned on submission of the following concurrent with and accompanying sealed bid concurrent with and accompanying an initial proposal prior to award:
1. The names and addresses of DBE firms that will participate in this contract;
 2. A description of the work each DBE will perform;
 3. The dollar amount of the participation of each DBE firm participating;
 4. Written documentation of the bidder's commitment to use a DBE subcontractor whose participation it submits to meet the contract goal;
 5. Written confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment; and
 6. If the contract goal is not met, evidence of good faith efforts to do so.

Bidders must present the information required above as a matter of responsiveness with initial proposals prior to contract award] (*see* 49 CFR 26.53(3)).

The successful bidder will be required to report its DBE participation obtained through race-neutral means throughout the period of performance.

- D. Contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 7 days after the contractor's receipt of payment for that work from the Omnitrans. In addition, Contractor is required to return any retainage payments to those subcontractors within 30 days after the subcontractor's work related to his contract is satisfactorily completed.
- E. Contractor must promptly notify Omnitrans whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. Contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of Omnitrans.

Required Clauses for Awards Exceeding \$2,000

RR-07

DAVIS-BACON AND COPELAND ANTI-KICKBACK ACTS

Background and Application

The Davis-Bacon and Copeland Acts are codified at 40 USC 3141, *et seq.* and 18 USC 874. The Acts apply to grantee construction contracts and subcontracts that “at least partly are financed by a loan or grant from the Federal Government.” 40 USC 3145(a), 29 CFR 5.2(h), 49 CFR 18.36(i) (5). The Acts apply to any construction contract over \$2,000. 40 USC 3142(a), 29 CFR 5.5(a). ‘Construction,’ for purposes of the Acts, includes “actual construction, alteration and/or repair, including painting and decorating.” 29 CFR 5.5(a). The requirements of both Acts are incorporated into a single clause (*see* 29 CFR 3.11) enumerated at 29 CFR 5.5(a) and reproduced below.

The clause language is drawn directly from 29 CFR 5.5(a) and any deviation from the model clause below should be coordinated with counsel to ensure the Acts’ requirements are satisfied.

Clause Language

Davis-Bacon and Copeland Anti-Kickback Acts

(1) **Minimum wages** - (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional

classifications and wage rates conformed under paragraph (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) Except with respect to helpers as defined as 29 CFR 5.2(n)(4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) With respect to helpers as defined in 29 CFR 5.2(n)(4), such a classification prevails in the area in which the work is performed.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(v)(A) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a) (1) (v) (B) or (C) of this section, shall be paid to all workers performing work in the Classification under this contract from the first day on which work is performed in the classification.

(2) **Withholding** - Omnitrans shall upon its own action or upon written request of an authorized

representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, Omnitrans may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records - (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b) (2) (B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Omnitrans for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under section 5.5(a) (3) (i) of Regulations, 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5 and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees - (i) Apprentices - Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification

of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractors registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees - Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity - The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) **Compliance with Copeland Act requirements** - The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) **Subcontracts** - The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) **Contract termination: debarment** - A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) **Compliance with Davis-Bacon and Related Act requirements** - All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) **Disputes concerning labor standards** - Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) **Certification of eligibility** - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

RR-08

SEISMIC SAFETY REQUIREMENTS 42 U.S.C. 7701 et seq. 49 CFR Part 41

Applicability to Contracts

The Seismic Safety requirements apply only to contracts for the construction of new buildings or additions to existing buildings.

Flow Down

The Seismic Safety requirements flow down from FTA recipients and subrecipients to first tier contractors to assure compliance, with the applicable building standards for Seismic Safety, including the work performed by all subcontractors.

Model Clauses/Language

The regulations do not provide suggested language for third-party contract clauses. The following language has been developed by FTA.

Seismic Safety - The contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations 49 CFR Part 41 and will certify to compliance to the extent required by the regulation. The contractor also agrees to ensure that all work performed under this contract including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the project.

Required Clauses for Awards Exceeding \$10,000

RR-09

TERMINATION 49 U.S.C. Part 18 FTA Circular 4220.1F

Applicability to Contracts

All contracts (with the exception of contracts with nonprofit organizations and institutions of higher education,) in excess of \$10,000 shall contain suitable provisions for termination by the grantee including the manner by which it will be effected and the basis for settlement. (For contracts with nonprofit organizations and institutions of higher education the threshold is \$100,000.) In addition, such contracts shall describe conditions under which the contract may be terminated for default as well as conditions where the contract may be terminated because of circumstances beyond the control of the contractor.

Flow Down

The termination requirements flow down to all contracts in excess of \$10,000, with the exception of contracts with nonprofit organizations and institutions of higher learning.

- a. **Termination for Convenience (General Provision)** Omnitrans may terminate this contract, in whole or in part, at any time by written notice to the Contractor when it is in the Government's best interest. The Contractor shall be paid its costs, including contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to Omnitrans to be paid the Contractor. If the Contractor has any property in its possession belonging to the Omnitrans, the Contractor will account for the same, and dispose of it in the manner the Omnitrans directs.
- b. **Opportunity to Cure (General Provision)** Omnitrans in its sole discretion may, in the case of a termination for breach or default, allow the Contractor an appropriately short period of time in which to cure the defect. In such case, the notice of termination will state the time period in which cure is permitted and other appropriate conditions
- If Contractor fails to remedy to Omnitrans' satisfaction the breach or default of any of the terms, covenants, or conditions of this Contract within ten (10) days after receipt by Contractor of written notice from Omnitrans setting forth the nature of said breach or default, Omnitrans shall have the right to terminate the Contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude Omnitrans from also pursuing all available remedies against Contractor and its sureties for said breach or default.
- c. **Waiver of Remedies for any Breach** In the event that Omnitrans elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this Contract, such waiver by Omnitrans shall not limit Omnitrans remedies for any succeeding breach of that or of any other term, covenant, or condition of this Contract.
- d. **Termination for Default (Construction)** If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract or any extension or fails to complete the work within this time, or if the Contractor fails to comply with any other provisions of this contract, Omnitrans may terminate this contract for default. Omnitrans shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. In this event, Omnitrans may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to Omnitrans resulting from the Contractor's refusal or failure to complete the work within specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Omnitrans in completing the work.

The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause if-

1. The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include: acts of God, acts of the Recipient, acts of another Contractor in the performance of a contract with the Recipient, epidemics, quarantine restrictions, strikes, freight embargoes; and
2. The contractor, within [10] days from the beginning of any delay, notifies Omnitrans in writing of the causes of delay. If in the judgment of Omnitrans, the delay is excusable, the time for completing the work shall be extended. The judgment of Omnitrans shall be final and conclusive on the parties, but subject to appeal under the Disputes clauses.

If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of Omnitrans.

Required Clauses for Awards Exceeding \$25,000

RR-010

SUSPENSION AND DEBARMENT*

- A. This Contract is a covered transaction for purposes of 49 CFR Part 29. As such, Contractor shall verify that none of the Contractor, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

Contractor shall comply with 49 CFR 29, Subpart C and shall include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into.

- B. By entering into this Contract, Contractor certifies that it shall comply with the requirements of 49 CFR 29, Subpart C throughout the period of this Contract. This certification is a material representation of fact relied upon by Omnitrans. If it is later determined that Contractor knowingly rendered an erroneous certification, in addition to remedies available to Omnitrans, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

Awards Exceeding \$100,000 by Statute

RR-011

COMPLIANCE WITH FEDERAL LOBBYING POLICY *

- A. The Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352, requires that Contractors who apply or bid for an award of \$100,000 or more shall file the certification required by 49 CFR Part 20, "New Restrictions on Lobbying," attached hereto as the certification entitled, "Certification of Compliance with Federal Lobbying Requirements." As set forth in the certifications, each tier of subcontractors shall certify to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures shall be forwarded from tier to tier up to Omnitrans.

RR-012

CLEAN WATER AND CLEAN AIR REQUIREMENTS*

A. CLEAN WATER REQUIREMENTS

Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq., and all applicable clean water standards of the State of California and any state or local agency having jurisdiction. Contractor shall report each violation to Omnitrans. Omnitrans will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office, and all other agencies having jurisdiction.

B. CLEAN AIR

Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. and all applicable Clean Air Standards of the State of California or any state or local agency having jurisdiction. Contractor shall report each violation to Omnitrans. Omnitrans will, in turn, report each violation as required to FTA, the appropriate EPA Regional Office and all other agencies having jurisdiction.

- C. Contractor shall include this Article in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

RR-013

NON-CONSTRUCTION ACTIVITIES

Activities Not Involving Construction. The Recipient agrees to comply, and assures the compliance of each subrecipient, lessee, third party contractor, and other participant at any tier of the Project, with the employee protection requirements for nonconstruction employees of the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. §§ 3701 *et seq.*, in particular with the wage and hour requirements of section 102 of that Act at 40 U.S.C. § 3702, and with implementing U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Nonconstruction Contracts Subject to the Contract Work Hours and Safety Standards Act)," 29 C.F.R. Part 5.

Required Clauses for Awards Exceeding the Simplified Acquisition Threshold (\$150,000)

RR-014

BUY AMERICA *

- A. Contractor shall comply with 49 U.S.C. 5323(j) and 49 CFR Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. 661.7, and include final assembly in the United States for 15 passenger vans and 15 passenger wagons produced by Chrysler Corporation, and microcomputer equipment and software. Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11. Rolling stock must be assembled in the United States and have a 60 percent domestic content.

Omnitrans may investigate Contractor's, any Subcontractor's, and any Supplier's compliance with this Article. If an investigation is initiated, Contractor, Subcontractor, or Supplier shall document its compliance, in accordance with 49 CFR 661.15, and cooperate with the investigation. Contractor shall incorporate the Buy America conditions set forth in this Article in every subcontract or purchase order and shall enforce such conditions.

- B. FTA requires a Buy America certification to be submitted with the proposal, or the proposal shall be considered non-responsive.

RR-015

BREACHES AND DISPUTE RESOLUTION 49 CFR Part 18 FTA Circular 4220.1F

Applicability to Contracts

All contracts in excess of \$100,000 shall contain provisions or conditions which will allow for administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as may be appropriate. This may include provisions for bonding, penalties for late or inadequate performance, retained earnings, liquidated damages or other appropriate measures.

Flow Down

The Breaches and Dispute Resolutions requirements flow down to all tiers.

Disputes - Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the Omnitrans. This decision shall be final and conclusive unless within ten (10) days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to Omnitrans Construction Manager. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of Omnitrans Project Manager shall be binding upon the Contractor and the Contractor shall abide by the decision.

Performance During Dispute - Unless otherwise directed by Omnitrans, Contractor shall continue performance under this Contract while matters in dispute are being resolved.

Claims for Damages - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefore shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between Omnitrans and the Contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which Omnitrans is located.

Rights and Remedies - The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by Omnitrans, or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

Transport of Property or Persons

RR-016 CARGO PREFERENCE*

A. Applicability

The following Article applies to federally funded contracts involving equipment, materials, or commodities which may be transported by ocean vessels

B. USE OF UNITED STATES FLAG VESSELS

Contractor shall use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this Contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels.

Contractor shall furnish within 20 working days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to Omnitrans (through Contractor in the case of a subcontractor's bill-of-lading.)

Contractor shall include these requirements in all subcontracts issued pursuant to this Contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

RR-017 FLY AMERICA

A. Applicability

This Article applies to federally funded contracts if the contract or subcontracts may involve the international transportation of goods, equipment, or personnel by air.

- B. Contractor agrees to comply with 49 U.S.C. 40118 (the "Fly America" Act) in accordance with the General Services Administration's regulations at 41 CFR Part 301-10, which provide that recipients and sub recipients of Federal funds and their contractors are required to use U.S. Flag air carriers for U.S Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not

available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. Contractor agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

CONSTRUCTION ACTIVITIES

RR-018

DAVIS-BACON AND COPELAND ANTI-KICKBACK ACTS

Background and Application

The Davis-Bacon and Copeland Acts are codified at 40 USC 3141, *et seq.* and 18 USC 874. The Acts apply to grantee construction contracts and subcontracts that “at least partly are financed by a loan or grant from the Federal Government.” 40 USC 3145(a), 29 CFR 5.2(h), 49 CFR 18.36(i) (5). The Acts apply to any construction contract over \$2,000. 40 USC 3142(a), 29 CFR 5.5(a). ‘Construction,’ for purposes of the Acts, includes “actual construction, alteration and/or repair, including painting and decorating.” 29 CFR 5.5(a). The requirements of both Acts are incorporated into a single clause (*see* 29 CFR 3.11) enumerated at 29 CFR 5.5(a) and reproduced below.

The clause language is drawn directly from 29 CFR 5.5(a) and any deviation from the model clause below should be coordinated with counsel to ensure the Acts’ requirements are satisfied.

Clause Language

Davis-Bacon and Copeland Anti-Kickback Acts

(1) **Minimum wages** - (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics

shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) Except with respect to helpers as defined as 29 CFR 5.2(n)(4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) With respect to helpers as defined in 29 CFR 5.2(n)(4), such a classification prevails in the area in which the work is performed.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification

under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(v)(A) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a) (1) (v) (B) or (C) of this section, shall be paid to all workers performing work in the Classification under this contract from the first day on which work is performed in the classification.

(2) **Withholding** - Omnitrans shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, Omnitrans may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) **Payrolls and basic records** - (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b) (2) (B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Omnitrans for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under section 5.5(a) (3) (i) of Regulations, 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S.

Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5 and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees - (i) Apprentices - Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the

Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractors registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees - Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be

permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity - The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) **Compliance with Copeland Act requirements** - The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) **Subcontracts** - The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) **Contract termination: debarment** - A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) **Compliance with Davis-Bacon and Related Act requirements** - All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) **Disputes concerning labor standards** - Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) **Certification of eligibility** - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

RR-019
CONTRACT WORK HOURS AND SAFETY STANDARDS ACT *

A. Applicability

This Article applies to federally funded construction contracts over \$2,000 (including ferry vessels), rolling stock purchases over \$2,500 and to operations/management contracts over \$2,500 (except transportation services)

B. Pursuant to the Labor Standards Provisions Applicable to Non-construction Contracts subject to the Federal Contract Work Hours and Safety Standards Act, 40 U.S.C.A. § 327 through 332 as implemented by U.S. Department of Labor regulations, 29 CFR 5.5 (b) and (c) Contractor and Subcontractor's contracting for any part of the Contract work shall comply with the following:

1. **Overtime requirements** – Neither Contractor nor any Subcontractor contracting for any part of the Contract work that requires or involves the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
2. **Violation; liability for unpaid wages; liquidated damages** – In the event of any violation of the Article set forth in paragraph (1) of this Article Contractor and any Subcontractor responsible therefore shall be liable for the unpaid wages. In addition, Contractor and Subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this Article, in the sum of ten dollars (\$10) for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this Article.
3. **Withholding for unpaid wages and liquidated damages** – Omnitrans shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any monies payable on account of work performed by Contractor or Subcontractor under the Contract or any other Federal contract with Contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by Contractor, such sums as may be determined to be necessary to satisfy any liabilities of Contractor or Subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this Article.

4. **Subcontracts** – Contractor or Subcontractor shall insert this Article in any Subcontracts and also an Article requiring the Subcontractors to include this Article in any lower tier Subcontracts. Contractor shall be responsible for compliance by any Subcontractor or lower tier Subcontractor with this Article.
5. **Payrolls and basic records** – The records to be maintained hereinabove shall be made available by Contractor or Subcontractor for inspection, copying, or transcription by Omnitrans and U.S. Dept. of Labor. Contractor and Subcontractor shall maintain payrolls and basic records during the course of the work and shall preserve them for a period of three (3) years from the completion of the Contract for all laborers and mechanics, including guards and watchmen, working on the Contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made and actual wages paid.

RR-020

BONDING REQUIREMENTS

Applicability to Contracts

For those construction or facility improvement contracts or subcontracts exceeding \$100,000, FTA may accept the bonding policy and requirements of the recipient, provided that they meet the minimum requirements for construction contracts as follows:

- A. A bid guarantee from each bidder equivalent to five (5) percent of the bid price. The "bid guarantees" shall consist of a firm commitment and may be in any of the following forms: (a) cash; (b) cashier's check payment to Omnitrans; (c) a certified check payable to the city; or (d) a bidder's bond executed by an admitted surety insurer. Such as a bid bond, certifies check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.
- B. A performance bond on the part of the Contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.
- C. A payment bond on the part of the Contractor for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment, as required by law, of all persons supplying labor and material in the execution of the work provided for in the contract.

RR-021

SEISMIC SAFETY REQUIREMENTS 42 U.S.C. 7701 et seq. 49 CFR Part 41

Applicability to Contracts

The Seismic Safety requirements apply only to contracts for the construction of new buildings or additions to existing buildings.

Flow Down

The Seismic Safety requirements flow down from FTA recipients and subrecipients to first tier contractors to assure compliance, with the applicable building standards for Seismic Safety, including the work performed by all subcontractors.

Model Clauses/Language

The regulations do not provide suggested language for third-party contract clauses. The following language has been developed by FTA.

Seismic Safety - The contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations 49 CFR Part 41 and will certify to compliance to the extent required by the regulation. The contractor also agrees to ensure that all work performed under this contract including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the project.

NON-CONSTRUCTION ACTIVITIES

Activities Not Involving Construction. The Recipient agrees to comply, and assures the compliance of each subrecipient, lessee, third party contractor, and other participant at any tier of the Project, with the employee protection requirements for nonconstruction employees of the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. §§ 3701 *et seq.*, in particular with the wage and hour requirements of section 102 of that Act at 40 U.S.C. § 3702, and with implementing U.S. DOL regulations, “Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Nonconstruction Contracts Subject to the Contract Work Hours and Safety Standards Act),” 29 C.F.R. Part 5.

TRANSIT OPERATIONS

RR-022

TRANSIT EMPLOYEE PROTECTIVE ARRANGEMENTS *

A. Applicability

Subject to the limitations in Sections B, C, and D, this Article applies if this Contract involves transit operations to be performed by employees of a Contractor recognized by FTA to be a transit operator, and if FTA has determined that it is financed in whole or in part with Federal assistance.

B. General Transit Employee Protective Requirements

If FTA has determined that this Contract involves transit operations financed in whole or in part with Federal assistance (other than Federal assistance authorized by 49 U.S.C. § 5310(a)(2) or 49 U.S.C. § 5311), and if the U.S. Secretary of Transportation has determined that the employee protective requirements of 49 U.S.C. § 5333(b) are necessary or appropriate for Omnitrans under this Contract, then Contractor shall perform the transit operations work under the Contract in compliance with terms and conditions, (a) determined by the U.S. Secretary of Labor to meet the employee protective requirements of 49 U.S.C. A 5333(b), and U.S. Department of Labor (“U. S. DOL”) guidelines at 29 C.F.R. Part 215, and any amendments thereto, and (b) stated in a U. S. DOL letter of certification to FTA, the date of which is set forth in the applicable Grant Agreement or Cooperative Agreement with Omnitrans, and which is incorporated in the Form of Contract as a Contract Document entitled “U. S. DOL Certification”.

C. Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5310(a) (2) for Elderly Individuals and Individuals with Disabilities

If FTA has determined that this Contract involves transit operations financed in whole or in part with Federal assistance authorized by 49 U.S.C. § 5310(a)(2), and if the U.S. Secretary of Transportation has determined or determines in the future that the employee protective requirements of 49 U.S.C. § 5333(b) are necessary or appropriate for Omnitrans under the Contract, Contractor shall perform the Work in compliance with the terms and conditions determined, (a) by the U.S. Secretary of Labor to meet the requirements of 49 U.S.C. § 5333(b), U.S. DOL guidelines at 29 C.F.R. Part 215, and any amendments thereto, and (b) stated in the U.S. DOL's letter of certification to FTA, the date of which is set forth in the applicable Grant Agreement or Cooperative Agreement with Omnitrans, and which is incorporated in the Form of Contract as a Contract Document entitled “U. S. DOL Certification”.

D. Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5311 in Nonurbanized Areas

If FTA has determined that this Contract involves transit operations financed in whole or in part with Federal assistance authorized by 49 U.S.C. § 5311, Contractor shall comply with the terms and conditions of the Special Warranty for the Nonurbanized Area Program agreed to by the U.S. Secretaries of Transportation and Labor, dated May 31, 1979, and the procedures implemented by U.S. DOL or any revision thereto.

E. Indemnity

Contractor shall defend, indemnify and hold harmless Omnitrans, and its Board Members, employees and agents from and against all liability, claims, demands actions, costs, judgments, penalties, damages, losses and expenses arising out of or in connection with Contractor's failure to comply with or failure to carry out its responsibilities under all applicable provisions of Sections B, C and D of this Article.

CHARTER BUS OPERATION

Charter Service Operations.

The Recipient agrees that neither it nor any public transportation operator performing work in connection with a Project financed under 49 U.S.C. chapter 53 or under 23 U.S.C. §§ 133 or 142, will engage in charter service operations, except as authorized by 49 U.S.C. § 5323(d) and FTA regulations, "Charter Service," 49 C.F.R. Part 604, and any Charter Service regulations or FTA directives that may be issued, except to the extent that FTA determines otherwise in writing. The Charter Service Agreement the Recipient has selected in its latest annual Certifications and Assurances is incorporated by reference and made part of the Grant Agreement or Cooperative Agreement for the Project. If the Recipient has failed to select the Charter Service Agreement in its latest annual Certifications and Assurances to FTA and does conduct charter service operations prohibited by FTA's Charter Service regulations, the Recipient understands and agrees that: (1) the requirements of FTA's Charter Service regulations and any amendments thereto will apply to any charter service it or its subrecipients, lessees, third party contractors, or other participants in the Project provide; (2) the definitions of FTA's Charter Service regulations will apply to the Recipient's charter operations, and (3) a pattern of violations of FTA's Charter Service regulations may require corrective measures and imposition of remedies, including barring the Recipient, subrecipient, lessee, third party contractor, or other participant in the Project operating public transportation under the Project from receiving Federal financial assistance from FTA, or withholding an amount of Federal assistance as set forth in Appendix D to FTA's Charter Service regulations.

SCHOOL BUS OPERATIONS

The Recipient agrees that neither it nor any public transportation operator performing work in connection with a Project financed under 49 U.S.C. chapter 53 or under 23 U.S.C. §§ 133 or 142, will engage in school transportation operations for the transportation of students or school personnel exclusively in competition with private school transportation operators, except as authorized by 49 U.S.C. §§ 5323(f) or (g), as applicable, and FTA regulations, "School Bus Operations," 49 C.F.R. Part 605 to the extent consistent with 49 U.S.C. §§ 5323(f) or (g), in accordance with any School Transportation Operations regulations or FTA directives that may be issued at a later date, except to the extent that FTA determines otherwise in writing. The School Transportation Operations Agreement the Recipient has selected in its latest annual Certifications and Assurances is incorporated by reference and made part of the Grant Agreement or Cooperative Agreement for the Project. If the Recipient has failed to select the School Transportation Agreement in its latest annual Certifications and Assurances to FTA and does conduct school transportation operations prohibited by FTA's School Bus Operations regulations, 49 C.F.R. Part 605, to the extent those regulations are consistent with 49 U.S.C. §§ 5323(f) or (g), the Recipient understands and agrees that: (1) the requirements of FTA's School Bus Operations regulations, 49 C.F.R. Part 605, to the extent consistent with 49 U.S.C. §§ 5323(f) or (g), will apply to any school transportation service it or its subrecipients, lessees, third party contractor, or other participants in the project provide, (2) the definitions of FTA's School Bus Operations regulations will apply to the Recipient's school transportation operations, and (3) if there is a violation of FTA's School Bus Operations regulations, to the extent consistent with 49 U.S.C. §§ 5323(f) or (g), FTA will bar the Recipient, subrecipient, lessee, third party contractor, or other Project participant operating public transportation that has violated FTA's School Bus Operations regulations, 49 C.F.R. Part 605, to the extent consistent with 49 U.S.C. §§ 5323(f) or (g), from receiving Federal transit assistance in an amount FTA considers appropriate.

RR-023

ALCOHOL AND DRUG-FREE WORKPLACE PROGRAM *

A. Applicability

This Article applies to federally funded contracts for transit operations.

B. FTA Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations Regulations

Contractor and its Subcontractors shall comply with the FTA anti-drug and alcohol misuse regulations (49 CFR Part 655) and the U.S. Department of Transportation (DOT) Procedures for Transportation Workplace Drug and Alcohol Testing Programs (49 CFR Part 40) to the full extent that they are, by their terms, applicable to Contractor and its Subcontractors. The regulations apply to all "contractors" that have "covered employees" that perform "safety sensitive functions" as those terms are defined in the regulations.

C. Certificate of Compliance

The CERTIFICATE OF COMPLIANCE WITH 49 CFR PARTS 655, PREVENTION OF ALCOHOL MISUSE AND PROHIBITED DRUG USE IN TRANSIT, submitted by Contractor prior to award, is incorporated as part of the Contract Documents.

D. Drug and Alcohol Testing Program

In the event that any part of the Work under this Contract falls within the scope of 49 CFR Part 655, Contractor, and its Subcontractors (as applicable), shall establish and implement a drug and alcohol testing program that complies with 49 CFR Parts 653 and 654, produce any documentation necessary to establish its compliance with Parts 653 and 654, and permit any authorized representative of the United States Department of Transportation or its operating administrations, the State Oversight Agency of California, or Omnitrans, to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 CFR Parts 653 and 654 and review the testing process. Contractor shall annually certify its compliance with Parts 653 and 65. To certify compliance the contractor shall use the "Substance Abuse Certifications" in the "Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements," which is published annually in the Federal Register.

E. Alcohol and Drug Free Workplace Program

In addition to the above, for Work performed on Omnitrans property, Contractor shall provide an Alcohol and Drug-free Workplace Program in accordance with FTA requirements found at <http://transit-safety.fta.dot.gov/DrugAndAlcohol/default.asp>

PLANNING, RESEARCH, DEVELOPMENT AND DEMONSTRATION PROJECTS

PATENT RIGHTS

a. General. If any invention, improvement, or discovery of the Recipient or of any subrecipient, lessee, third party contractor, or other participant at any tier of the Project is conceived or first actually reduced to practice in the course of or under the Project, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the Recipient agrees to notify FTA immediately and provide a detailed report in a format satisfactory to FTA.

b. Federal Rights. The Recipient agrees that its rights and responsibilities, and those of each

subrecipient, lessee, third party contractor, or other participant at any tier of the Project, pertaining to that invention, improvement, or discovery will be determined in accordance with applicable Federal laws and regulations, including any waiver thereof. Absent a determination in writing to the contrary by the Federal Government, the Recipient agrees to transmit to FTA those rights due the Federal Government in any invention, improvement, or discovery resulting from that subagreement, third party contract, third party subcontract, or arrangement, as specified in 35 U.S.C. §§ 200 *et seq.*, and U.S. Department of Commerce regulations, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” 37 C.F.R. Part 401, irrespective of the status of the Recipient, subrecipient, lessee, third party contractor or other participant in the Project (*i.e.*, a large business, small business, State government, State instrumentality, local government, Indian tribe, nonprofit organization, institution of higher education, or individual).

c. License Fees and Royalties. FTA considers income earned from license fees and royalties for patents, patent applications, and inventions produced under the Project to be program income. Except to the extent FTA determines otherwise in writing, as provided in 49 C.F.R. Parts 18 and 19, the Recipient has no obligation to the Federal Government with respect to that program income, apart from compliance with 35 U.S.C. §§ 200 *et seq.*, which applies to patent rights developed under a research project.

RIGHTS IN DATA AND COPYRIGHTS

a. Definition. The term “subject data,” as used in this Section 18 of this Master Agreement means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under the Grant Agreement or Cooperative Agreement for the Project. Examples include, but are not limited to: computer software, standards, specifications, engineering drawings and associated lists, process sheets, manuals, technical reports, catalog item identifications, and related information. “Subject data” do not include financial reports, cost analyses, or other similar information used for Project administration.

b. General. The following restrictions apply to all subject data first produced in the performance of the Grant Agreement or Cooperative Agreement for the Project:

(1) Except for its own internal use, the Recipient may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may the Recipient authorize others to do so, without the prior written consent of the Federal Government, unless the Federal Government has previously released or approved the release of such data to the public.

(2) The restrictions on publication of Paragraph 18.b(1) of this Master Agreement, however, do not apply to a Grant Agreement or Cooperative Agreement with an institution of higher learning.

c. Federal Rights in Data and Copyrights. The Recipient agrees to provide to the Federal Government a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, for Federal Government purposes the subject data described in this Subsection 18.c of this Master Agreement. As used herein, “for Federal Government purposes,” means use only for the direct purposes of the Federal Government. Without the copyright owner’s

consent, the Federal Government may not provide or otherwise extend to other parties the Federal Government's license to:

- (1) Any subject data developed under the Grant Agreement or Cooperative Agreement for the Project, or under a subagreement, lease, third party contract or other arrangement at any tier of the Project, supported with Federal assistance derived from the Grant Agreement or Cooperative Agreement for the Project, whether or not a copyright has been obtained; and
- (2) Any rights of copyright to which a Recipient, subrecipient, lessee, third party contractor, or other participant at any tier of the Project purchases ownership using Federal assistance.

d. Special Federal Rights in Data for Research, Development, Demonstration, and Special Studies Projects. In general, FTA's purpose in providing Federal assistance for a research, development, demonstration, or special studies Project is to increase transportation knowledge, rather than limit the benefits of the Project to Project participants. Therefore, when the Project is completed, the Recipient agrees to provide a Project report that FTA may publish or make available for publication on the Internet. In addition, the Recipient agrees to provide other reports pertaining to the Project that FTA may request. The Recipient agrees to identify clearly any specific confidential, privileged, or proprietary information it submits to FTA. In addition, except to the extent that FTA determines otherwise in writing, the Recipient of Federal assistance to support a research, development, demonstration, or a special studies Project agrees that, in addition to the rights in data and copyrights that it must provide to the Federal Government as set forth in Subsection 18.c of this Master Agreement, FTA may make available to any FTA recipient, subrecipient, third party contractor, third party subcontractor or other participant at any tier of the Project, either FTA's license in the copyright to the subject data or a copy of the subject data. If the Project is not completed for any reason whatsoever, all data developed under the Project shall become subject data as defined in Subsection 18.a of this Master Agreement and shall be delivered as the Federal Government may direct. This Subsection 18.d, however, does not apply to adaptations of automatic data processing equipment or programs for the Recipient's use when the costs thereof are financed with Federal assistance through an FTA capital program.

e. License Fees and Royalties. FTA considers income earned from license fees and royalties for copyrighted material, or trademarks produced under the Project to be program income. Except to the extent FTA determines otherwise in writing, as provided in 49 C.F.R. Parts 18 and 19, the Recipient has no obligation to the Federal Government with respect to that program income, apart from compliance with 35 U.S.C. §§ 200 *et seq.*, which applies to patent rights developed under a research project.

f. Hold Harmless. Except as prohibited or otherwise limited by State law or except to the extent that FTA determines otherwise in writing, upon request by the Federal Government, the Recipient agrees to indemnify, save, and hold harmless the Federal Government and its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by the Recipient of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under the Project. The Recipient shall not be required to indemnify the Federal Government for any such liability caused by the wrongful acts of Federal employees or agents.

g. Restrictions on Access to Patent Rights. Nothing in Section 18 of this Master Agreement pertaining to rights in data shall either imply a license to the Federal Government under any patent or be construed to affect the scope of any license or other right otherwise granted to the Federal Government under any patent.

h. Data Developed Without Federal Funding or Support. In connection with the Project, the Recipient may find it necessary to provide data to FTA developed without any Federal funding or support by the Federal Government. The requirements of Subsections 18.b, 18.c, and 18.d of this Master Agreement do not apply to data developed without Federal funding or support by the Federal Government, even though that data may have been used in connection with the Project. Nevertheless, the Recipient understands and agrees that the Federal Government will not be able to protect data from unauthorized disclosure unless that data is clearly marked “Proprietary” or “Confidential.”

i. Requirements to Release Data. To the extent required by U.S. DOT regulations, “Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations,” at 49 C.F.R. § 19.36(d), or other applicable Federal laws or Federal regulations, the Recipient understands and agrees that the data and information it submits to the Federal Government may be required to be released in accordance with the Freedom of Information Act (or another Federal law or Federal regulation providing access to such records).

SPECIAL NOTIFICATION REQUIREMENTS FOR STATES

SPECIAL NOTIFICATION REQUIREMENTS FOR STATES

To the extent required by Federal law, the State agrees that, in administering any Federal assistance Program or Project supported by the Grant Agreement or Cooperative Agreement, any request for proposals, solicitation, grant application, form, notification, press release, or other publication involving the distribution of FTA assistance for the Program or the Project shall indicate that FTA is the Federal agency that is providing the Federal assistance, the Catalog of Federal Domestic Assistance Number of the program from which the Federal assistance is authorized, as may be applicable, and the amount of Federal assistance FTA provided.

MISCELLANEOUS SPECIAL REQUIREMENTS

RR-024

ENERGY CONSERVATION REQUIREMENTS

A. Applicability

This Article applies to all federally funded contracts.

- B. Contractor shall comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act 42 USC §6321 et seq.

RR-025

RECYCLED PRODUCTS

A. Applicability

This Article applies to federally funded operations/management, construction, or materials & supplies contracts for items designated by the Environmental Protection Agency, when procuring \$10,000 or more per year.

- B. To the extent practicable and economically feasible, a competitive preference shall be given for products and services that conserve natural resources and protect the environment and are energy efficient.
- C. The Contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

NATIONAL INTELLIGENT TRANSPORTATION SYSTEMS ARCHITECTURE AND STANDARDS

To the extent applicable, the Recipient agrees to conform to the National Intelligent Transportation Systems (ITS) Architecture and Standards as required by SAFETEA-LU § 5307(c), 23 U.S.C. § 512 note, and follow the provisions of FTA Notice, "FTA National ITS Architecture Policy on Transit Projects," 66 Fed. Reg. 1455 et seq., January 8, 2001, and any other implementing directives FTA may issue at a later date, except to the extent FTA determines otherwise in writing.

RR-026
ADA ACCESS

A. Applicability

This Article applies to federally funded Architect & Engineer, Operations/Management, Rolling Stock Purchase, and Construction contracts

B. Access Requirements for Persons with Disabilities

Contractor shall comply with:

1. The requirements of 49 U.S.C. § 5301(d), which states the Federal policy that elderly persons and persons with disabilities have the same right as other persons to use mass transportation service and facilities, and that special efforts shall be made in planning and designing those services and facilities to implement that policy;
2. All applicable requirements of section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination on the basis of handicaps;
3. The Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. § 12101 et seq., which requires that accessible facilities and services be made available to persons with disabilities, including any subsequent amendments to that Act;
4. The Architectural Barriers Act of 1968, as amended, 42 U.S.C. §§ 4151 et seq., which requires that buildings and public accommodations be accessible to persons with disabilities, including any subsequent amendments to that Act; and
5. All applicable requirements of the following regulations and any subsequent amendments thereto:
 - (1) U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. Part 37;
 - (2) U.S. DOT regulations, "Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," 49 C.F.R. Part 27;
 - (3) Joint U.S. Architectural and Transportation Barriers Compliance Board (U.S. ATBCB)/U.S. DOT regulations, "Americans With Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. Part 1192 and 49 C.F.R. Part 38;

- (4) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. Part 35;
- (5) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. Part 36;
- (6) U.S. General Services Administration (U.S. GSA) regulations, "Accommodations for the Physically Handicapped," 41 C.F.R. Subpart 101-19;
- (7) U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630;
- (8) U.S. Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for the Hearing and Speech Disabled," 47 C.F.R. Part 64, Subpart F; and
- (9) U.S. ATBCB regulations, "Electronic and Information Technology Accessibility Standards," 36 C.F.R. Part 1194; and
- (10) FTA regulations, "Transportation for Elderly and Handicapped Persons," 49 C.F.R. Part 609;
- (11) Any implementing requirements FTA may issue.

NOT INCLUDED IN UPDATED POLICY

RR-01

ADMINISTRATIVE CODE *

A. Applicability

This Article applies to all contracts.

B. Compliance with §§1090 et. seq. and §§87100 et. seq. of the California Government Code

Contractor shall comply with all applicable provisions of §§1090 et. seq. and §§87100 et. seq. of the California Government Code. Without reducing or affecting its obligation to comply with any and all of said provisions, Contractor specifically covenants:

1. Contractor shall not cause or permit any member, officer, or employee of Omnitrans to have any financial interest in the Contract;
2. Contractor shall not enter into any Subcontract involving services or property with a person or business prohibited from transacting such business with Omnitrans;
3. Contractor warrants and represents that to its knowledge no Board member, officer, or employee of Omnitrans has any interest, whether contractual, non-contractual, financial or otherwise, in this Contract, or in the business or any other contract or transaction of the Contractor or any Subcontractor and that if any such interest comes to Contractor's knowledge at any time, Contractor shall make a full and complete disclosure of all such information in writing to Omnitrans.

C. Campaign Contributions

Neither Contractor nor its Agents shall give or offer to give any campaign contribution to any member of Omnitrans Board of Directors in violation of the California Government Code §§84300 et seq., or of the Administrative Code. Contractor shall submit a Certification of Campaign Contributions with all COs of two hundred thousand dollars (\$200,000) or more.

RR-02

DISCRIMINATION *

A. Applicability

This Article applies to all contracts.

- B.** In connection with the performance of Work provided for under this Contract, Contractor agrees that it will not, on the grounds of race, religious creed, color, national origin, ancestry, physical disability, medical condition, marital status, sex, sexual orientation, or age, discriminate or permit discrimination against any person or group of persons in any manner prohibited by Federal, State or local laws.

RR-03

WHISTLEBLOWER REQUIREMENTS *

A. Applicability

This Article applies to all contracts.

- B.** Contractor shall not adopt any rule, regulation, or policy preventing an employee from disclosing information to a government or law enforcement agency, where the employee believes the information discloses violation or noncompliance with a state or Federal regulation; nor shall Contractor retaliate against an employee for taking such actions as set forth in the t. seq.

RR-04
PUBLIC RECORDS ACT *

A. Applicability

This Article applies to all contracts.

- B. Except as otherwise provided herein, all records, documents, drawings, plans, specifications, and all other information relating to the conduct of Omnitrans business, including all information and documents submitted by Contractor ("Records"), shall become the exclusive property of Omnitrans and shall be deemed public records. Said Records are subject to the provisions of the California Public Records Act (Government Code §6250 et. seq.). Omnitrans use and disclosure of its records are governed by this Act. Omnitrans will use its best efforts to inform the Contractor of any request for any financial records or documents marked "Trade Secret", "Confidential" or "Proprietary" provided by Contractor to Omnitrans. Omnitrans will not advise as to the nature or content of documents entitled to protection from disclosure under the California Public Records Act.
- C. In the event of litigation concerning the disclosure of any Records, Omnitrans sole involvement will be as a stakeholder, retaining the Records until otherwise ordered by a court. The submitting party, at its sole expense and risk, shall be fully responsible for any and all fees for prosecuting or defending any action concerning the Records and shall indemnify and hold Omnitrans harmless from all costs and expenses including attorney's fees in connection with any such action.

RR-05
PRIVACY ACT - 5 U.S.C. 552

Applicability to Contracts

When a grantee maintains files on drug and alcohol enforcement activities for FTA, and those files are organized so that information could be retrieved by personal identifier, the Privacy Act requirements apply to all contracts.

Flow Down

The Federal Privacy Act requirements flow down to each third party contractor and their contracts at every tier.

Model Clause/Language

The text of the following clause has not been mandated by statute or specific regulation, but has been developed by FTA.

Contracts Involving Federal Privacy Act Requirements - The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:

- (1) The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 U.S.C. § 552a. Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.
- (2) The Contractor also agrees to include these requirements in each subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with Federal assistance provided by FTA.

RR-06

VETERANS PREFERENCE

Veterans Employment. Contractors working on a capital project funded using FTA assistance shall give a hiring preference, to the extent practicable, to veterans (as defined in section 2108 of title 5) who have the requisite skills and abilities to perform the construction work required under the contract. This subsection shall not be understood, construed or enforced in any manner that would require an employer to give preference to any veteran over any equally qualified applicant who is a member of any racial or ethnic minority, female, an individual with a disability, or former employee.

END OF REGULATORY REQUIREMENTS

ATTACHMENT C - PRICING
MNT19-74
PARKING LOT SWEEPING

Item Num	Section	Description	Unit of Measure	Quantity	Monthly
1	Base Year 1 (June 13, 2019 - June 12, 2022)	East Valley	MONTHLY	12	\$13,200.00
2	Base Year 1 (June 13, 2019 - June 12, 2022)	West Valley	MONTHLY	12	\$10,200.00
3	Base Year 1 (June 13, 2019 - June 12, 2022)	San Bernardino Paratransit	MONTHLY	12	\$3,300.00
4	Base Year 1 (June 13, 2019 - June 12, 2022)	Anderson Redlands Blvd Park & Ride	MONTHLY	12	\$2,880.00
5	Base Year 1 (June 13, 2019 - June 12, 2022)	Marshall E Street East & West Park & Rides	MONTHLY	12	\$2,880.00
6	Base Year 1 (June 13, 2019 - June 12, 2022)	Palm Kendall Park & Ride	MONTHLY	12	\$2,880.00
7	Base Year 1 (June 13, 2019 - June 12, 2022)	San Bernardino Downtown Metrolink Station	MONTHLY	12	\$8,040.00
8	Base Year 1 (June 13, 2019 - June 12, 2022)	San Bernardino Transit Center	MONTHLY	12	\$4,140.00
				Subtotal	\$47,520.00
7	Base Year 2 (June 13, 2020 - June 12, 2021)	East Valley	MONTHLY	12	\$13,200.00
8	Base Year 2 (June 13, 2020 - June 12, 2021)	West Valley	MONTHLY	12	\$10,200.00
9	Base Year 2 (June 13, 2020 - June 12, 2021)	San Bernardino Paratransit	MONTHLY	12	\$3,300.00
10	Base Year 2 (June 13, 2020 - June 12, 2021)	Anderson Redlands Blvd Park & Ride	MONTHLY	12	\$2,880.00
11	Base Year 2 (June 13, 2020 - June 12, 2021)	Marshall E Street East & West Park & Rides	MONTHLY	12	\$2,880.00
12	Base Year 2 (June 13, 2020 - June 12, 2021)	Palm Kendall Park & Ride	MONTHLY	12	\$2,880.00
13	Base Year 2 (June 13, 2020 - June 12, 2021)	San Bernardino Downtown Metrolink Station	MONTHLY	12	\$8,040.00
14	Base Year 2 (June 13, 2020 - June 12, 2021)	San Bernardino Transit Center	MONTHLY	12	\$4,140.00
				Subtotal	\$47,520.00
13	Base Period 3 (June 13, 2021 - June 12, 2022)	East Valley	MONTHLY	12	\$13,200.00
14	Base Period 3 (June 13, 2021 - June 12, 2022)	West Valley	MONTHLY	12	\$10,200.00
15	Base Period 3 (June 13, 2021 - June 12, 2022)	San Bernardino Paratransit	MONTHLY	12	\$3,300.00
16	Base Period 3 (June 13, 2021 - June 12, 2022)	Anderson Redlands Blvd Park & Ride	MONTHLY	12	\$2,880.00
17	Base Period 3 (June 13, 2021 - June 12, 2022)	Marshall E Street East & West Park & Rides	MONTHLY	12	\$2,880.00
18	Base Period 3 (June 13, 2021 - June 12, 2022)	Palm Kendall Park & Ride	MONTHLY	12	\$2,880.00
19	Base Period 3 (June 13, 2021 - June 12, 2022)	San Bernardino Downtown Metrolink Station	MONTHLY	12	\$8,040.00
20	Base Period 3 (June 13, 2021 - June 12, 2022)	San Bernardino Transit Center	MONTHLY	12	\$4,140.00
				Subtotal	\$47,520.00
19	Option Year 1 (June 13, 2022 - June 12, 2023)	East Valley	MONTHLY	12	\$13,200.00
20	Option Year 1 (June 13, 2022 - June 12, 2023)	West Valley	MONTHLY	12	\$10,200.00
21	Option Year 1 (June 13, 2022 - June 12, 2023)	San Bernardino Paratransit	MONTHLY	12	\$3,300.00
22	Option Year 1 (June 13, 2022 - June 12, 2023)	Anderson Redlands Blvd Park & Ride	MONTHLY	12	\$2,880.00
23	Option Year 1 (June 13, 2022 - June 12, 2023)	Marshall E Street East & West Park & Rides	MONTHLY	12	\$2,880.00
24	Option Year 1 (June 13, 2022 - June 12, 2023)	Palm Kendall Park & Ride	MONTHLY	12	\$2,880.00
25	Option Year 1 (June 13, 2022 - June 12, 2023)	San Bernardino Downtown Metrolink Station	MONTHLY	12	\$8,040.00
26	Option Year 1 (June 13, 2022 - June 12, 2023)	San Bernardino Transit Center	MONTHLY	12	\$4,140.00
				Subtotal	\$47,520.00
25	Option Year 2 (June 13, 2023 - June 12, 2024)	East Valley	MONTHLY	12	\$13,200.00
26	Option Year 2 (June 13, 2023 - June 12, 2024)	West Valley	MONTHLY	12	\$10,200.00
27	Option Year 2 (June 13, 2023 - June 12, 2024)	San Bernardino Paratransit	MONTHLY	12	\$3,300.00
28	Option Year 2 (June 13, 2023 - June 12, 2024)	Anderson Redlands Blvd Park & Ride	MONTHLY	12	\$2,880.00
29	Option Year 2 (June 13, 2023 - June 12, 2024)	Marshall E Street East & West Park & Rides	MONTHLY	12	\$2,880.00
30	Option Year 2 (June 13, 2023 - June 12, 2024)	Palm Kendall Park & Ride	MONTHLY	12	\$2,880.00
31	Option Year 2 (June 13, 2023 - June 12, 2024)	San Bernardino Downtown Metrolink Station	MONTHLY	12	\$8,040.00
32	Option Year 2 (June 13, 2023 - June 12, 2024)	San Bernardino Transit Center	MONTHLY	12	\$4,140.00
				Subtotal	\$47,520.00
				Total	\$237,600.00

**OmniTrans****PERSONNEL POLICY MANUAL**

POLICY 707 PAGE 1 OF 6

SUBJECT**PROHIBITING WEAPONS IN THE WORKPLACE**APPROVED BY OMNITRANS
BOARD OF DIRECTORS

DATE: June 7, 2017

I. Purpose

It is the policy of Omnitrans to maintain a work environment that is safe for all persons, including the community, and conducive to attaining high work standards. To achieve these objectives, the Agency prohibits the possession of firearms and weapons in the work place, regardless of any license or permit that an individual may have which otherwise authorizes the individual to carry firearms or weapons.

It is illegal and a criminal violation to possess weapons in public buildings (California Penal Code 171b and 171.7).

II. Scope

This policy applies to all Omnitrans employees, including but not limited to staffing agency workers and contractors working for or with the Agency at any time, regardless of whether the Agency is the actual employer.

Possession of firearms and weapons is prohibited at all Omnitrans' offices, parking lots, agency vehicles and job sites, and in all Agency vehicles.

The following person/s are exempt from this policy as stated: a guard of a contract carrier operating an armored vehicle, and any law enforcement officer who is carrying out official duties engaged in protecting and preserving property or life within the scope of his or her employment.

Omnitrans will strictly enforce this policy. Violation of this policy will result in immediate disciplinary action, up to and including termination.

III. Procedure**A. COMMUNICATION OF POLICY**

(a) Each employee of the Agency shall receive a copy of this policy at the time of his/her hire and shall sign a copy of the acknowledgment. Employees who were employed before the effective date of this policy shall also receive a copy of this policy and shall sign a copy of the acknowledgment. A copy of the signed acknowledgment and of all new and revised policies throughout the employee's employment shall be maintained in each employee's personnel file.

(b) A copy of this policy shall be attached to each contractor's contract, and shall become a part of its contract. The contractor shall be responsible for communicating this policy to its employees and any subcontractors to which the contractor sublets any portion of its contract.

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B. PROHIBITED CONDUCT

(a) The transportation of firearms or weapons in Agency vehicles is prohibited. This includes but is not limited to:

- (1) to and from work,
- (2) when conducting Agency business,
- (3) at all times in Agency-owned or leased vehicles.

(b) The possession or carrying of permitted and non-permitted firearms or weapons while at Agency buildings, parking lots, sponsored events, and job sites.

(c) Exception: Power actuated tools which are manufactured for the use of fastening building materials and sanctioned tools for the purpose of performing Agency job duties are not subject to this policy.

C. SEARCH

(a) Omnitrans reserves the right to conduct reasonable, unannounced searches of Agency premises and personal searches of employees and others while entering, on, or leaving Agency premises, including, but not limited to, personal effects, vehicles, lockers, desks, tool boxes, clothing, meal containers, and baggage. Searches will be conducted when the Agency has a reasonable suspicion to believe that a particular employee may be in possession of a weapon or firearm.

(b) "Reasonable suspicion" is defined as a suspicion that is based on specific personal observations such as an employee's manner, disposition, behavior, speech, information provided to management by an employee, by law enforcement officials, by a security service, or by other persons believed to be reliable, or a suspicion that is based on other surrounding circumstances.

(c) Individuals refusing to allow an inspection will not be detained or forced to submit to the inspection. Refusal violates Agency policy and constitutes an act of insubordination constituting disciplinary action, up to and including separation of the employment relationship. Non-employees who refuse to allow an inspection will not be permitted on Agency premises and will be required to immediately leave the premises. Employees will be relieved of all duties while pending investigation.

D. DISCIPLINE

(a) Violations of any portion of this policy will subject the employee to discipline,

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up to and including separation of employment.

(b) Violations by a contractor's employee or subcontractor of any portion of this policy may constitute a breach of contract and regardless will mandate the immediate removal of the contractor's employee from Agency premises, prohibition against the individual accessing Agency premises in the future, and may also constitute a breach of contract.

E. REPORT OF VIOLATIONS**1. Employee Violations**

Employees are required to report violations of this policy without regard to the relationship between the individual who initiates the prohibited behavior and the individual reporting it. An employee who believes that another employee may be in violation of this policy must report the alleged violation to the employee's manager or supervisor, the department director, security, or the appropriate departmental Human Resources representative.

Departments are responsible for implementing this policy. The Agency will promptly investigate allegations of violations of this policy.

Omnitrans reserves the right to authorize searches for prohibited weapons on its property when a violation is reported or when probable cause or reasonable suspicion is present consistent with law.

Employees should be aware that there is no reasonable expectation of privacy with respect to weapons in the workplace. The Agency's right to conduct searches includes, but is not limited to, such areas and items as lockers, desks, workstations, offices, purses, briefcases, bags, toolboxes, and lunch bags.

Searches of the employee's work area and belongings, as described above, may be conducted by the Security & Emergency Preparedness Coordinator, or designee. Searches of all types, including surrounding agency property, personal property and the employee may be conducted by law enforcement in accordance with law should reasonable suspicion be present. Any weapon found in violation of this policy may be confiscated. Refusal to permit a search may result in discipline, up to and including separation.

2. Visitor Violations

Visitors are not allowed to carry a weapon on the premises. Any visitor carrying a weapon into a posted no-carry agency facility is creating an elevated risk to security and safety that warrants a response leading to compliance with the law. If the visitor

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poses an immediate risk to security or safety, law enforcement shall be notified immediately by calling 9-911. The visitor shall be considered an immediate risk to safety and security if he/she is acting in an aggressive, belligerent, confrontational, suspicious or in an otherwise questionable manner while carrying a weapon.

F. FALSE REPORTS

Employees making intentionally false and malicious complaints of weapons in the workplace will be subject to disciplinary action, up to and including separation and/or will be reported to the proper authorities as appropriate.

G. ROLES AND RESPONSIBILITIES

Employees are responsible for understanding and complying with the Policy Prohibiting Weapons in the Workplace.

Whenever there is a question as to whether an instrument, article or substance is considered a weapon in violation of this policy, it is the employee's responsibility to seek clarification. Employees seeking clarification should direct their questions to the agency's Security & Emergency Preparedness Coordinator at 909-379-7117 prior to bringing the item(s) to Omnitrans work sites and events, as well as agency-owned or leased facilities or vehicles.

H. SAFETY FIRST

In applying this policy, no employee shall take any action that will risk his or her own safety or the safety of other individuals. No attempt should ever be made by an employee to restrain or forcibly evict an armed person from agency premises.

An individual's continued non-compliance after being properly informed of the law (California Penal Code 171 (b)) will result in notification to law enforcement and discipline, up to and including separation of employment. Employees should notify security immediately.

An employee who feels an imminent danger to his or her own safety or the safety or security of others, should avoid any interaction with the individual. Immediately contact law enforcement by calling 9-911 and security at 909-379-7117.

I. ANTI-RETALIATION PROVISION

Omnitrans strictly prohibits any retaliation against an employee who has reported a possible breach of policy. If an employee feels that he or she has been subjected to retaliation in violation of this policy, the employee must immediately report it to his or her supervisor or other designated Human Resources representative.

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J. DEFINITIONS

1. **Firearm or weapon includes, but is not limited to:** A weapon, a pistol or rifle, whether loaded or unloaded, capable of firing a projectile and using an explosive as a propellant.
 - A firearm, whether loaded or unloaded, from which a shot may be discharged including but not limited to handguns, pistols, revolvers, shotguns, rifles, and bb guns;
 - A gun that can discharge a shot or a projectile by means of an explosive or gas, or compressed air;
 - A device designed to be used as a weapon, from which can be expelled a projectile by the force of any explosion or force of combustion;
 - Any weapon (including a starter gun) which will or is designed to or may readily be converted to expel a projectile by the action of an explosive;
 - Any destructive device;
 - Any device designed as a weapon and capable of producing great bodily harm, including but not limited to, stun guns, stun batons;
 - An electric weapon such as a taser gun;
 - Any combustible or flammable liquid, or other substance, device, or instrumentality that, in a manner it is used or intended to be used, is calculated or likely to produce death or great bodily harm, or any fire that is used to produce death or great bodily harm;
 - Any knife that is carried with intention or calculation to produce death or great bodily harm having a blade length in excess of four (4) inches, the blade of which is fixed or is capable of being fixed in an unguarded position by the use of one or two hands. Switchblades are specifically prohibited. (Knives intended to be used as eating utensils, and stored or maintained in office kitchens or lunchrooms do not represent a violation of this policy.)
2. **Office:** All permanent facilities, all mobile facilities, all leased facilities, and any facility designated as an office by the agency.
3. **Parking lot:** All lots at permanent facility, park and rides, lots at project sites, any lot that the agency designates as a parking lot that is not at a permanent facility or project site.
4. **Agency vehicle:** All agency-owned buses/vehicles, all agency-leased buses/vehicles, all agency-rental buses/vehicles, and all personal vehicles for which the owner receives a vehicle allowance, all personal vehicles where the owner receives reimbursement for mileage.



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5. **Search:** To examine in order to find something concealed.

6. **Job sites:** Any and all locations where the agency conducts business.

SIGNS

1. At each entrance to buildings, parking lots, and project sites, a sign shall be posted in a location that is conspicuous to all who could enter a building, parking lot, or project site.
2. Signs shall have wording or pictogram that prohibits firearms, weapons and give notice of video surveillance. Signs shall be vandalism resistant and of the quality that they will not fade due to the elements.