

WARNING: ALL INDIVIDUALS INTERESTED IN BIDDING ON THIS PROJECT MUST OBTAIN THE FINAL PLANS AND SPECIFICATIONS FROM THE DEPARTMENT MANAGING THE PROJECT OR AS OTHERWISE STATED IN THE ADVERTISEMENT FOR BIDS FOR THE PROJECT. DO NOT USE THE PLANS AND SPECIFICATIONS POSTED ON THE CLERK OF THE BOARD'S WEBSITE FOR BIDDING ON THIS PROJECT.

CHINO AIRPORT
REILS for Runway 3-21, 8L-26R, and 8R-26L Project
Vault Upgrade Project

Approved by Engineer of Record:

Brian Buiter, PE

ITEMS & SPECIFICATIONS COVERED BY THIS SEAL ARE
INDICATED BELOW:

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Non-DBE Designation of Subcontractors
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Approved by Engineer of Record:

Brandon Winchell, PE

ITEMS & SPECIFICATIONS COVERED BY THIS SEAL ARE
INDICATED BELOW:



DIVISION V – SPECIAL PROVISIONS FOR AIRPORT CONSTRUCTION

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APPENDIX

Construction Safety and Phasing Plan (CSPP) - Lighting & Components

These documents and specifications, including the designs incorporated herein, are an instrument of professional service prepared for use in connection with the project identified hereon under the conditions existing on 8/23/2021. Any use, in whole or in part, for any other project without written authorization of MEAD AND HUNT, INC., shall be at user's sole risk.

DIVISION II

Required Federal Contract Provisions

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NOT FOR BID

Required Federal Contract Provisions for FAA Airport Improvement Program Projects

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NOT FOR BID

Contract Guidance

This project is funded by the Federal Aviation Administration. Federal laws and regulations require that projects funded by federal assistance programs must include specific contract provisions. Contractor(s) including subcontractors are required to:

- Include certain provisions in their subcontracts and sub-tier agreements
 - Mandatory Language – Whenever a clause or provision has mandatory text, Contractors and subcontractors must incorporate the text of the provision without change, except where specific adaptive input is necessary
- Incorporate the applicable requirements of these contract provisions by reference for work done under any purchase orders, rental agreements and other agreements for supplies or services.

The prime contractor shall be responsible for compliance with these contract provisions by any subcontractor, lower-tier subcontractor or service provider.

Failure to Comply with Provisions

Contractors' failure to comply with the terms of these contract provisions may be sufficient grounds to:

- 1) Withhold progress payments or final payment;
- 2) Terminate the contract for cause;
- 3) Seek suspension/debarment; or
- 4) Take other actions determined to be appropriate by the Sponsor or the FAA.

Required Submittals

Some of the Items in this Section require the Contractor to submit a form with the Bid. These forms are included in Division I - Proposal Forms. Unless otherwise indicated, these forms are only required from prime contractors and are not required from subcontractors.

A1 ACCESS TO RECORDS AND REPORTS

(Source: 2 CFR § 200.334, 2 CFR § 200.337, FAA Order 5100.38)

FAA policy extends these requirements to the Sponsor's contracts and subcontracts of AIP funded projects.

ACCESS TO RECORDS AND REPORTS

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Owner, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

A2 AFFIRMATIVE ACTION REQUIREMENT

(Source: 41 CFR Part 60-4, Executive Order 11246)

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables

Goals for minority participation for each trade:	19.0%
Goals for female participation in each trade:	6.9%

These goals are applicable to all of the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the “covered area” is Chino Airport, city of Chino, San Bernardino County, California.

A3 BREACH OF CONTRACT TERMS

(Source: 2 CFR Part 200, Appendix II(A))

Contract Types – This provision is required for all contracts that exceed the simplified acquisition threshold as stated in 2 CFR Part 200, Appendix II (A). This threshold is occasionally adjusted for inflation and is \$250,000.

BREACH OF CONTRACT TERMS

Any violation or breach of terms of this contract on the part of the *Contractor* or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement.

Owner will provide *Contractor* written notice that describes the nature of the breach and corrective actions the *Contractor* must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Contractor until such time the Contractor corrects the breach or the Owner elects to terminate the contract. The Owner’s notice will identify a specific date by which the *Contractor* must correct the breach. Owner may proceed with termination of the contract if the *Contractor* fails to correct the breach by the deadline indicated in the Owner’s notice.

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

A4 BUY AMERICAN PREFERENCE

(Source: Title 49 USC § 50101; Executive Order 14005, *Ensuring the Future is Made in All of America by All of America’s Workers*; Bipartisan Infrastructure Law (Pub. L. No. 117-58), Build America, Buy America (BABA)

*******Form is included in Division 1 Proposal Forms*******

The Buy American Preference incorporates statutory requirements and policies outlined in the in 49 USC § 50101, Executive Order 14005, and BABA.

Section 50101 of 49 USC requires that all steel and manufactured goods used on AIP projects be produced in the United States. This section also gives the FAA the ability to issue a waiver to a Sponsor to use non-domestic material on an AIP funded project subject to meeting certain conditions. A Sponsor may request that the FAA issue a waiver from the Buy American Preference requirements if the FAA finds that:

- 1) Applying the provision is not in the public interest.
- 2) The steel or manufactured goods are not available in sufficient quantity or quality in the United States.
- 3) The cost of components and subcomponents produced in the United States is more than 60 percent of the total components of a facility or equipment, and final assembly has taken place in the United States. Items that have an FAA standard specification item number (such as specific airport lighting equipment) are considered the equipment.
- 4) Applying this provision would increase the cost of the overall project by more than 25 percent.

Executive Order 14005 advances the Administration’s priority to use terms and conditions of Federal financial assistance awards to maximize the use of goods, products, and materials produced in, and services offered in, the United States. The Order directs, to the extent appropriate and consistent with

applicable law, agencies shall partner with the Hollings Manufacturing Extension Partnership (MEP) to conduct supplier scouting in order to identify American companies that are able to produce goods, products, and materials in the United States that meet Federal procurement needs, prior to consideration of using non-domestic products.

The Bipartisan Infrastructure Law, Build America, Buy America (BABA) Act strengthens Made in America Laws and bolsters America's industrial base, protects national security, and supports high-paying jobs. Under BABA, iron, steel and certain construction materials are required to be 100% produced in the United States.

Under the Bipartisan Infrastructure Law (Pub. L. No. 117-58) BABA three waivers are available for iron and steel, manufactured products, and construction materials when a Federal agency finds that –

- 1) Applying the domestic content procurement preference would be inconsistent with the public interest (a “public interest waiver”);
- 2) Types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality (a “nonavailability waiver”); or
- 3) The inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent (an “unreasonable cost waiver”).

BABA defines construction materials, items that are or consists primarily of non-ferrous metals, plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables), glass (including optic glass), lumber or drywall.

Items that consist of two or more of the aforementioned materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials. For example, a plastic framed sliding window should be treated as a manufactured product while plate glass should be treated as a construction material.

The Buy America Preference requirements flow down from the Sponsor to first tier contractors, who are responsible for ensuring that lower tier contractors and subcontractors are also in compliance.

Note: The Buy American Preference does not apply to temporary equipment a contractor uses as a tool of its trade and which does not remain as part of the project.

Required Documentation

The FAA Buy American Requests. All applications (requests) for an FAA Buy American Preference Waiver includes, at minimum, a completed Content Percentage Worksheet and Final Assembly Questionnaire. Additional information may be requested from the applicant by the FAA. Airport Sponsors, consultants, construction contractors, or equipment manufacturers are responsible for completing and submitting waiver applications. The FAA is unable to make a determination on waiver requests with incomplete information. Sponsors must confirm with the bidder or offeror to assess the adequacy of the waiver request and associated information prior to forwarding a waiver request to the FAA for action. All FAA waivers forms are available from the FAA Buy American Requirements webpage.

Propriety Confidentiality. Exemption 4 of the Freedom of Information Act protects "trade secrets and commercial or financial information obtained from a person [that is] privileged or confidential. Proprietary manufacturing and design information submitted to the Federal Aviation Administration for the purposes of receiving a Buy American Waiver shall not be disclosed outside the FAA. The FAA will provide a written notification to the Airport Sponsor, manufacturer(s), contractor(s) or supplier(s) when a waiver determination is complete.

Buy American Conformance Lists. The FAA Office of Airports maintains listings of projects and products that have received a waiver from the Buy American Preference requirements for project specific and nationwide use. Each of these conformance lists is available online at www.faa.gov/airports/aip/buy_american/. Products listed on the FAA Nationwide Buy American Conformance list do not require additional submittal of domestic content information. Nationwide waivers expire five years from the date issued, unless revoked earlier by the FAA.

Contract Types –

- **Construction Projects** involving the replacement, rehabilitation, reconstruction of airfield surfaces such as on runways, taxiways, taxilanes, aprons, roadways, parking lots, etc.
- **Equipment and Buildings Projects** involving and including the acquisition of equipment such as snow removal equipment, navigational aids, wind cones, and the construction of buildings such as hangars, terminal development, lighting vaults, aircraft rescue & firefighting buildings, etc. - Insert the Certificate of Compliance with FAA Buy American Preference Based on Equipment/Building Projects.

FAA BUY AMERICAN PREFERENCE

The Contractor certifies that its bid/offer is in compliance with 49 USC § 50101, BABA and other related Made in America Laws,¹ U.S. statutes, guidance, and FAA policies, which provide that Federal funds may not be obligated unless all iron, steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

The bidder or offeror must complete and submit the certification of compliance with FAA's Buy American Preference, BABA and Made in America laws included herein with their bid or offer. (See Proposal Forms). The Airport Sponsor/Owner will reject as nonresponsive any bid or offer that does not include a completed certification of compliance with FAA's Buy American Preference and BABA.

The bidder or offeror certifies that all constructions materials, defined to mean an article, material, or supply other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber; or drywall used in the project are manufactured in the U.S.

¹ Per Executive Order 14005 "Made in America Laws" means all statutes, regulations, rules, and Executive Orders relating to federal financial assistance awards or federal procurement, including those that refer to "Buy America" or "Buy American," that require, or provide a preference for, the purchase or acquisition of goods, products, or materials produced in the United States, including iron, steel, and manufactured products offered in the United States.

A5 CIVIL RIGHTS - GENERAL

(Source: 49 USC § 47123)

GENERAL CIVIL RIGHTS PROVISIONS

In all its activities within the scope of its airport program, the Contractor agrees to comply with pertinent statutes, Executive Orders, and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

The above provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract.

A6 CIVIL RIGHTS – TITLE VI ASSURANCE

(Source: 49 USC § 47123; FAA Order 1400.11)

Title VI of the Civil Rights Act of 1964, as amended, (Title VI) prohibits discrimination on the grounds of race, color, or national origin under any program or activity receiving Federal financial assistance.

The text of each individual clause comes from the U.S. Department of Transportation [Order DOT 1050.2](#), Standard Title VI Assurances and Nondiscrimination Provisions, effective April 24, 2013. Where the clause refers to the applicable activity, project, or program, it means the AIP project.

Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq.*), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq.*) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-259) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990 (42 USC § 12101, *et seq.*) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;

- The Federal Aviation Administration's Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations);
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs [70 Fed. Reg. 74087 (2005)];
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC § 1681, et seq).

Compliance with Nondiscrimination Requirements:

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor"), agrees as follows:

1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the Sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a Contractor's noncompliance with the non-discrimination provisions of this contract, the Sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
 - a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. **Incorporation of Provisions:** The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the Sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the Sponsor to enter into any litigation to protect the interests of the Sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

A7 CLEAN AIR AND WATER POLLUTION CONTROL

(Source: 2 CFR Part 200, Appendix II(G), 42 USC § 7401, et seq 33 USC § 1251, et seq)

Contract Types – This provision is required for all contracts and lower tier contracts that exceed \$150,000.

CLEAN AIR AND WATER POLLUTION CONTROL

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 USC §§ 7401-7671q) and the Federal Water Pollution Control Act as amended (33 USC §§ 1251-1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

Contractor must include this requirement in all subcontracts that exceed \$150,000.

A8 CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

(Source: 2 CFR Part 200, Appendix II(E), 2 CFR § 5.5(b), 40 USC § 3702, 40 USC § 3704)

Contract Work Hours and Safety Standards Act Requirements (CWHSSA) (40 USC §§ 3702 & 3704) requires contractors and subcontractors on covered contracts to pay laborers and mechanics employed in the performance of the contracts not less than one and one-half times their basic rate of pay for all hours worked over 40 in a workweek. CWHSSA prohibits unsanitary, hazardous, or dangerous working conditions on federally-assisted projects. The Wage and Hour Division (WHD) within the U.S. Department of Labor (DOL) enforces the compensation requirements of this Act, while DOL's Occupational Safety and Health Administration (OSHA) enforces the safety and health requirements.

This provision applies to all contracts and lower tier contracts that exceed \$100,000, and employ laborers, mechanics, watchmen, and guards.

CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

1. Overtime Requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; Liability for Unpaid Wages; Liquidated Damages.

In the event of any violation of the clause set forth in paragraph (1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this clause, in the sum of \$29 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this clause.

3. Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration (FAA) or the Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this clause.

4. Subcontractors.

The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this clause.

A9 COPELAND "ANTI-KICKBACK" ACT

(Source: 2 CFR Part 200, Appendix II(D), 29 CFR Parts 3 and 5)

This provision applies to all construction contracts and subcontracts financed under the AIP that exceed \$2,000.

COPELAND "ANTI-KICKBACK" ACT

Contractor must comply with the requirements of the Copeland "Anti-Kickback" Act (18 USC 874 and 40 USC 3145), as supplemented by Department of Labor regulation 29 CFR part 3. Contractor and subcontractors are prohibited from inducing, by any means, any person employed on the project to give up any part of the compensation to which the employee is entitled. The Contractor and each Subcontractor must submit to the Owner, a weekly statement on the wages paid to each employee performing on covered work during the prior week. Owner must report any violations of the Act to the Federal Aviation Administration.

A10 DAVIS-BACON REQUIREMENTS

(Source: 2 CFR Part 200, Appendix II(D), 29 CFR Part 5, 49 USC § 47112(b), 40 USC §§ 3141-3144, 3146, and 3147)

The Davis-Bacon Act (40 USC §§ 3141-3144, 3146, and 3147) ensures that laborers and mechanics employed under the contract receive pay no less than the locally prevailing wages and fringe benefits as determined by the Department of Labor.

Incorporate into all construction contracts and subcontracts that exceed \$2,000 and include funding from the AIP.

DAVIS-BACON REQUIREMENTS

1. Minimum Wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination;
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor,

Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the Contractor, the laborers, or mechanics to be employed in the classification, or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding. The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to the Contractor, Sponsor, Applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and Basic Records.

(i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records that show that the commitment to provide such benefits is enforceable, that the plan or program is financially

responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR § 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit them to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, Sponsor, or Owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR § 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR § 5.5 (a)(3)(i), and that such information is correct and complete;

(2) That each laborer and mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The Contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Sponsor, the Federal Aviation Administration, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, Sponsor, applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR § 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR § 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of

fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination that provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal Employment Opportunity. The utilization of apprentices, trainees, and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act Requirements.

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

6. Subcontracts.

The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR §§ 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR § 5.5.

7. Contract Termination: Debarment.

A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR § 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes Concerning Labor Standards.

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of Eligibility.

(i) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR § 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR § 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 USC § 1001.

A11 DEBARMENT AND SUSPENSION

(Source: 2 CFR Part 180 (Subpart B), 2 CFR Part 200, Appendix II(H), 2 CFR Part 1200, DOT Order 4200.5, Executive Orders 12549 and 12689)

*****Form is included in Division 1 Proposal Forms*****

Must include in any AIP-funded contract, regardless of tier, that is awarded by a contractor, subcontractor, supplier, consultant if the amount of the contract is equal to or exceeds \$25,000.

CERTIFICATION OF OFFEROR/BIDDER REGARDING DEBARMENT

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

CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT

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

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

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

A12 DISADVANTAGED BUSINESS ENTERPRISE

(Source: 49 CFR Part 26)

*****Form is included in Division 1 Proposal Forms*****

Bid Information Submitted as a matter of responsiveness:

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR § 26.53.

As a condition of responsiveness, the Bidder or Offeror must submit the following information with its proposal on the forms provided herein:

- 1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- 2) A description of the work that each DBE firm will perform;
- 3) The dollar amount of the participation of each DBE firm listed under (1);
- 4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal
- 5) Written confirmation from each listed DBE firm that it is participating in the contract in the kind and amount of work provided in the prime contractor's commitment; and
- 6) If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26. The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor

quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

Bid Information submitted as a matter of responsibility:

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR § 26.53.

As a condition of responsibility, every Bidder or Offeror must submit the following information on the forms provided herein within five days after bid opening.

- 1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- 2) A description of the work that each DBE firm will perform;
- 3) The dollar amount of the participation of each DBE firm listed under (1);
- 4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal;
- 5) Written confirmation from each listed DBE firm that it is participating in the contract in the kind and amount of work provided in the prime contractor's commitment; and
- 6) If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26. The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

The requirements of 49 CFR part 26 apply to this contract. It is the policy of the [Insert Name of Owner] to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. The Owner encourages participation by all firms qualifying under this solicitation regardless of business size or ownership.

The Contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

1. Withholding monthly progress payments;
2. Assessing sanctions;
3. Liquidated damages; and/or
4. Disqualifying the Contractor from future bidding as non-responsible.

Prompt Payment (49 CFR § 26.29)

The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than fourteen days from the receipt of each payment the prime contractor receives from San Bernardino County Department of Airports. The prime contractor agrees further to return retainage payments to each subcontractor within 30 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the San Bernardino County Department of Airports. This clause applies to both DBE and non-DBE subcontractors.

Termination of DBE Subcontracts (49 CFR § 26.53(f))

The prime contractor must not terminate a DBE subcontractor listed in response to the DBE Designation of Subcontractors Form, contained within the Bidder's Checklist of forms to be fully executed and submitted with bid documents, (or an approved substitute DBE firm) without prior written consent of the San Bernardino County Department of Airports. This includes, but is not limited to, instances in which the prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

The prime contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent of the San Bernardino County Department of Airports. Unless the San Bernardino County Department of Airports consent is provided, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

San Bernardino County Department of Airports may provide such written consent only if the San Bernardino County Department of Airports agrees, for reasons stated in the concurrence document, that the prime contractor has good cause to terminate the DBE firm. For purposes of this paragraph, good cause includes the circumstances listed in 49 CFR §26.53.

Before transmitting to the San Bernardino County Department of Airports its request to terminate and/or substitute a DBE subcontractor, the prime contractor must give notice in writing to the DBE subcontractor, with a copy to the San Bernardino County Department of Airports, of its intent to request to terminate and/or substitute, and the reason for the request.

The prime contractor must give the DBE five days to respond to the prime contractor's notice and advise the San Bernardino County Department of Airports and the contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the San Bernardino County Department of Airports should not approve the prime contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), the San Bernardino County Department of Airports may provide a response period shorter than five days.

In addition to post-award terminations, the provisions of this section apply to preaward deletions of or substitutions for DBE firms put forward by offerors in negotiated procurements.

A13 DISTRACTED DRIVING

(Source: Executive Order 13513, DOT Order 3902.10)

Insert this provision in all AIP funded contracts that exceed the micro-purchase threshold of 2 CFR § 200.320 (currently set at \$10,000).

TEXTING WHEN DRIVING

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving", (10/1/2009) and DOT Order 3902.10, "Text Messaging While Driving", (12/30/2009), the Federal Aviation Administration encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or subgrant.

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding \$10,000 that involve driving a motor vehicle in performance of work activities associated with the project.

A14 PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

(Source: 2 CFR § 200, Appendix II(K), 2 CFR § 200.216)

Include the following provision in all AIP funded contracts and lower-tier contracts.

PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

Contractor and Subcontractor agree to comply with mandatory standards and policies relating to use and procurement of certain telecommunications and video surveillance services or equipment in compliance with the National Defense Authorization Act [Public Law 115-232 § 889(f)(1)].

A15 RESERVED

A16 EQUAL EMPLOYMENT OPPORTUNITY (EEO)

(Source: 2 CFR Part 200, Appendix II©, 41 CFR § 60-1.4, 41 CFR § 60-4.3, Executive Order 11246)

Contractor must incorporate these clauses without modification in any contract or subcontract when the amount exceeds \$10,000.

The purpose of this provision is to provide equal opportunity for all persons, without regard to race, color, religion, sex, or national origin who are employed or seeking employment with contractors performing under a federally-assisted construction contract. There are two provisions — a contract clause and a specification clause.

EQUAL OPPORTUNITY CONTRACT CLAUSE

During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff, or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the Contractor's commitments under this section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any such rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The Contractor will include the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance: *Provided*, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS

1. As used in these specifications:

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
- d. "Minority" includes:
 - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
 - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(4) American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR part 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware

of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.

11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts

as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR part 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g. those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

A17 FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)

(Source: 29 USC § 201, et seq, 2 CFR § 200.430)

The U.S. Department of Labor (DOL) Wage and Hour Division administers the Fair Labor Standards Act (FLSA). This act prescribes federal standards for basic minimum wage, overtime pay, record keeping, and child labor standards.

All consultants, sub-consultants, contractors, and subcontractors employed under this federally assisted project must comply with the FLSA.

FEDERAL FAIR LABOR STANDARDS ACT CLAUSE

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, et seq, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.

The *Contractor* has full responsibility to monitor compliance to the referenced statute or regulation. The *Contractor* must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

A18 LOBBYING AND INFLUENCING FEDERAL EMPLOYEES

(Source: 31 USC § 1352 – Byrd Anti-Lobbying Amendment, 2 CFR Part 200, Appendix II(I), 49 CFR Part 20, Appendix A)

******Form is included in Division 1 Proposal Forms******

Contractor must include Lobbying Certification and this language (not modified) in subcontracts exceeding \$100,000.

CERTIFICATION REGARDING LOBBYING

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

- (1) No Federal appropriated funds have been agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

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

- (4) paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an **PROHIBITION OF SEGREGATED FACILITIES**

(Source: 2 CFR Part 200, Appendix II©, 41 CFR Part 60-1)

This clause must be included in any AIP funded projects that contains the Equal Employment Opportunity clause of 41 CFR § 60-1.4. This obligation flows down to subcontract and sub-tier purchase orders containing the Equal Employment Opportunity clause.

A19 PROHIBITION OF SEGREGATED FACILITIES

(Source: 41 CFR Part 60-1)

- (a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Employment Opportunity clause in this contract.
- (b) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the

basis of race, color, religion, sex, sexual orientation, gender identity, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Employment Opportunity clause of this contract.

A20 OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

(Source: 29 CFR Part 1910)

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. The employer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The employer retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (29 CFR Part 1910). The employer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

A21 PROCUREMENT OF RECOVERED MATERIALS

(Source: 2 CFR § 200.323, 2 CFR Part 200, Appendix II(J), 40 CFR Part 247, 42 USC § 6901, et seq (Resource Conservation and Recovery Act (RCRA))

PROCUREMENT OF RECOVERED MATERIALS

Contractor and subcontractor agree to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and the regulatory provisions of 40 CFR Part 247. In the performance of this contract and to the extent practicable, the Contractor and subcontractors are to use products containing the highest percentage of recovered materials for items designated by the Environmental Protection Agency (EPA) under 40 CFR Part 247 whenever:

- 1) The contract requires procurement of \$10,000 or more of a designated item during the fiscal year; or
- 2) The contractor has procured \$10,000 or more of a designated item using Federal funding during the previous fiscal year.

The list of EPA-designated items is available at www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products.

Section 6002(c) establishes exceptions to the preference for recovery of EPA-designated products if the contractor can demonstrate the item is:

- a) Not reasonably available within a timeframe providing for compliance with the contract performance schedule;
- b) Fails to meet reasonable contract performance requirements; or
- c) Is only available at an unreasonable price.

A22 RESERVED

A23 RESERVED

A24 TAX DELINQUENCY AND FELONY CONVICTIONS

(Source: Section 8113 of the Consolidated Appropriations Act, 2022 (Public Law 117-103) and similar provisions in subsequent appropriations acts; DOT Order 4200.6 – Appropriations Act Requirements for Procurement and Non-Procurement Regarding Tax Delinquency and Felony Convictions)

*****Form is included in Division 1 Proposal Forms*****

This provision applies to all contracts funded in whole or part with AIP monies.

CERTIFICATION OF OFFEROR/BIDDER REGARDING TAX DELINQUENCY AND FELONY CONVICTIONS

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

Certifications

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

Note

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

Term Definitions

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

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

A25 TERMINATION OF CONTRACT

(Source: 2 CFR Part 200, Appendix II(B), FAA Advisory Circular 150/5370-10, Section 80-09)

Contract Types – All contracts and subcontracts in excess of \$10,000 must address termination for cause and termination for convenience. The provision must address the manner (i.e., notice, opportunity to cure, and effective date) by which the contract will be affected and the basis for settlement (e.g., incurred expenses, completed work, profit, etc.).

TERMINATION FOR CONVENIENCE (CONSTRUCTION & EQUIPMENT CONTRACTS)

The Owner may terminate this contract in whole or in part at any time by providing written notice to the Contractor. Such action may be without cause and without prejudice to any other right or remedy of Owner. Upon receipt of a written notice of termination, except as explicitly directed by the Owner, the Contractor shall immediately proceed with the following obligations regardless of any delay in determining or adjusting amounts due under this clause:

- 1) Contractor must immediately discontinue work as specified in the written notice.
- 2) Terminate all subcontracts to the extent they relate to the work terminated under the notice.
- 3) Discontinue orders for materials and services except as directed by the written notice.
- 4) Deliver to the Owner all fabricated and partially fabricated parts, completed and partially completed work, supplies, equipment and materials acquired prior to termination of the work, and as directed in the written notice.
- 5) Complete performance of the work not terminated by the notice.
- 6) Take action as directed by the Owner to protect and preserve property and work related to this contract that Owner will take possession.

Owner agrees to pay Contractor for:

1. Completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination;
2. Documented expenses sustained prior to the effective date of termination in performing work and furnishing labor, materials, or equipment as required by the contract documents in connection with uncompleted work;
3. Reasonable and substantiated claims, costs, and damages incurred in settlement of terminated contracts with Subcontractors and Suppliers; and
4. Reasonable and substantiated expenses to the Contractor directly attributable to Owner's termination action.

Owner will not pay Contractor for loss of anticipated profits or revenue or other economic loss arising out of or resulting from the Owner's termination action.

The rights and remedies this clause provides are in addition to any other rights and remedies provided by law or under this contract.

TERMINATION FOR CAUSE (CONSTRUCTION)

Section 80-09 of FAA Advisory Circular 150/5370-10 establishes standard language for conditions, rights, and remedies associated with Owner termination of this contract for cause due to default of the Contractor.

TERMINATION FOR CAUSE (EQUIPMENT)

The Owner may, by written notice of default to the Contractor, terminate all or part of this Contract for cause if the Contractor:

1. Fails to begin the Work under the Contract within the time specified in the Notice- to-Proceed;
2. Fails to make adequate progress as to endanger performance of this Contract in accordance with its terms;
3. Fails to make delivery of the equipment within the time specified in the Contract, including any Owner approved extensions;
4. Fails to comply with material provisions of the Contract;

5. Submits certifications made under the Contract and as part of their proposal that include false or fraudulent statements; or
6. Becomes insolvent or declares bankruptcy.

If one or more of the stated events occur, the Owner will give notice in writing to the Contractor and Surety of its intent to terminate the contract for cause. At the Owner's discretion, the notice may allow the Contractor and Surety an opportunity to cure the breach or default.

If within 10 days of the receipt of notice, the Contractor or Surety fails to remedy the breach or default to the satisfaction of the Owner, the Owner has authority to acquire equipment by other procurement action. The Contractor will be liable to the Owner for any excess costs the Owner incurs for acquiring such similar equipment.

Payment for completed equipment delivered to and accepted by the Owner shall be at the Contract price. The Owner may withhold from amounts otherwise due the Contractor for such completed equipment, such sum as the Owner determines to be necessary to protect the Owner against loss because of Contractor default.

Owner will not terminate the Contractor's right to proceed with the work under this clause if the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such acceptable causes include: acts of God, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, and severe weather events that substantially exceed normal conditions for the location.

If, after termination of the Contractor's right to proceed, the Owner determines that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the Owner issued the termination for the convenience the Owner.

The rights and remedies of the Owner in this clause are in addition to any other rights and remedies provided by law or under this contract.

A26 TRADE RESTRICTION CERTIFICATION

(Source: 49 USC § 50104, 49 CFR Part 30)

Contractor will incorporate this provision for certification without modification in all lower tier subcontracts. (The trade restriction certification and clause apply to all AIP funded projects.)

Unless waived by the Secretary of Transportation, AIP funds cannot be used on a product or service from a foreign country included in the current list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR).

TRADE RESTRICTION CERTIFICATION

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

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

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

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

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

- 1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR; or
- 2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list; or
- 3) who incorporates in the public works project any product of a foreign country on such USTR list.

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

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

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

A27 VETERAN'S PREFERENCE

(Source: 49 USC § 47112©)

This provision applies to all AIP funded projects that involve labor to carry out the project.

VETERAN'S PREFERENCE

In the employment of labor (excluding executive, administrative, and supervisory positions), **the Contractor and all sub-tier contractors** must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 USC § 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

A28 DOMESTIC PREFERENCES FOR PROCUREMENTS

(Source: 2 CFR § 200.322, 2 CFR Part 200, Appendix II(L))

Must be included in all subawards, including all contracts and purchase orders for work or products under the grant.

CERTIFICATION REGARDING DOMESTIC PREFERENCES FOR PROCUREMENTS

The Bidder or Offeror certifies by signing and submitting this bid or proposal that, to the greatest extent practicable, the Bidder or Offeror has provided a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including, but not limited to, iron, aluminum, steel, cement, and other manufactured products) in compliance with 2 CFR § 200.322.

END OF FEDERAL CONTRACT PROVISIONS

DIVISION III

Part I - General Contract Provisions

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Part 1 – General Contract Provisions

Section 10 Definition of Terms

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

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

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

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

Paragraph Number	Term	Definition
10-30	Force Account	a. Contract Force Account - A method of payment that addresses extra work performed by the Contractor on a time and material basis. b. Owner Force Account - Work performed for the project by the Owner's employees.
10-31	Intention of Terms	Whenever, in these specifications or on the plans, the words "directed," "required," "permitted," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Engineer and/or Resident Project Representative (RPR) is intended; and similarly, the words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer and/or RPR, subject in each case to the final determination of the Owner. Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.
10-32	Lighting	A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.
10-33	Major and Minor Contract Items	A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 20% of the total amount of the award contract. All other items shall be considered minor contract items.
10-34	Materials	Any substance specified for use in the construction of the contract work.
10-35	Modification of Standards (MOS)	Any deviation from standard specifications applicable to material and construction methods in accordance with FAA Order 5300.1.
10-36	Notice to Proceed (NTP)	A written notice to the Contractor to begin the actual contract work on a previously agreed to date. If applicable, the Notice to Proceed shall state the date on which the contract time begins.
10-37	Owner	The term "Owner" shall mean the party of the first part or the contracting agency signatory to the contract. Where the term "Owner" is capitalized in this document, it shall mean airport Sponsor only.

Paragraph Number	Term	Definition
10-38	Passenger Facility Charge (PFC)	Per 14 Code of Federal Regulations (CFR) Part 158 and 49 United States Code (USC) § 40117, a PFC is a charge imposed by a public agency on passengers enplaned at a commercial service airport it controls.
10-39	Pavement Structure	The combined surface course, base course(s), and subbase course(s), if any, considered as a single unit.
10-40	Payment bond	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will pay in full all bills and accounts for materials and labor used in the construction of the work.
10-41	Performance bond	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will complete the work in accordance with the terms of the contract.
10-42	Plans	The official drawings or exact reproductions which show the location, character, dimensions and details of the airport and the work to be done and which are to be considered as a part of the contract, supplementary to the specifications. Plans may also be referred to as 'contract drawings.'
10-43	Project	The agreed scope of work for accomplishing specific airport development with respect to a particular airport.
10-44	Proposal	The written offer of the bidder (when submitted on the approved proposal form) to perform the contemplated work and furnish the necessary materials in accordance with the provisions of the plans and specifications.
10-45	Proposal guaranty	The security furnished with a proposal to guarantee that the bidder will enter into a contract if their own proposal is accepted by the Owner.
10-46	Quality Assurance (QA)	Owner's responsibility to assure that construction work completed complies with specifications for payment.
10-47	Quality Control (QC)	Contractor's responsibility to control material(s) and construction processes to complete construction in accordance with project specifications.
10-48	Quality Assurance (QA) Inspector	An authorized representative of the Engineer and/or Resident Project Representative (RPR) assigned to make all necessary inspections, observations, tests, and/or observation of tests of the work performed or being performed, or of the materials furnished or being furnished by the Contractor.

Paragraph Number	Term	Definition
10-49	Quality Assurance (QA) Laboratory	The official quality assurance testing laboratories of the Owner or such other laboratories as may be designated by the Engineer or RPR. May also be referred to as Engineer's, Owner's, or QA Laboratory.
10-50	Resident Project Representative (RPR)	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for all necessary inspections, observations, tests, and/or observations of tests of the contract work performed or being performed, or of the materials furnished or being furnished by the Contractor, and acting directly or through an authorized representative.
10-51	Runway	The area on the airport prepared for the landing and takeoff of aircraft.
10-52	Runway Safety Area (RSA)	A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to aircraft. See the construction safety and phasing plan (CSPP) for limits of the RSA.
10-53	Safety Plan Compliance Document (SPCD)	Details how the Contractor will comply with the CSPP.
10-54	Specifications	A part of the contract containing the written directions and requirements for completing the contract work. Standards for specifying materials or testing which are cited in the contract specifications by reference shall have the same force and effect as if included in the contract physically.
10-55	Sponsor	A Sponsor is defined in 49 USC § 47102(24) as a public agency that submits to the FAA for an AIP grant; or a private Owner of a public-use airport that submits to the FAA an application for an AIP grant for the airport.
10-56	Structures	Airport facilities such as bridges; culverts; catch basins, inlets, retaining walls, cribbing; storm and sanitary sewer lines; water lines; underdrains; electrical ducts, manholes, handholes, lighting fixtures and bases; transformers; navigational aids; buildings; vaults; and, other manmade features of the airport that may be encountered in the work and not otherwise classified herein.
10-57	Subgrade	The soil that forms the pavement foundation.
10-58	Superintendent	The Contractor's executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the RPR, and who shall supervise and direct the construction.

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

END OF SECTION 10

SECTION 20 PROPOSAL REQUIREMENTS AND CONDITIONS

20-01 Advertisement (Notice to Bidders). The "Advertisement for Bids" has been published at such places and at such times as required by local law or ordinances and is made a part of the "Contract Documents."

The Bid Advertisement provides the following information for Bidders:

- time and place for submitting sealed proposals;
- description of the proposed work;
- instructions about obtaining proposal forms, plans, and specifications;
- Contractor's requirements (license, registration, etc);
- required Federal Provisions solicitation language;
- the proposal guaranty required; and
- the Owner's right to reject any and all bids.

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

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

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

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

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

Mobilization is limited to 10 percent of the total project cost.

A prebid conference is included on this project to discuss as a minimum, the following items: material requirements; submittals; Quality Control/Quality Assurance requirements; the construction safety and phasing plan including airport access and staging areas; and unique airfield paving construction requirements. Time, place, and location are identified in Division I.

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

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

- b. Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts in force with the Owner at the time the Owner issues the proposal to a prospective bidder.
- c. Documented record of Contractor default under previous contracts with the Owner.
- d. Documented record of unsatisfactory work on previous contracts with the Owner.

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

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

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

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

20-08 Responsive and responsible bidder. A responsive bid conforms to all significant terms and conditions contained in the Owner's invitation for bid. It is the Owner's responsibility to decide if the exceptions taken by a bidder to the solicitation are material or not and the extent of deviation it is willing to accept.

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

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

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

f. If the applicable Disadvantaged Business Enterprise information is incomplete.

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

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

20-11 Delivery of proposal. See Division I.

20-12 Withdrawal or revision of proposals. See Division I.

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

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

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

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

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

20-15 Discrepancies and Omissions. A Bidder who discovers discrepancies or omissions with the project bid documents shall immediately notify the Owner's Engineer of the matter. A bidder that has doubt as to the true meaning of a project requirement may submit to the Owner's Engineer a written request for interpretation no later than the RFI deadline in Division I.

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

END OF SECTION 20

SECTION 30 AWARD AND EXECUTION OF CONTRACT

30-01 Consideration of proposals. After the proposals are publicly opened and read, they will be compared on the basis of the summation of the products obtained by multiplying the estimated quantities shown in the proposal by the unit bid prices, pursuant to the evaluation procedures in Division I.

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

- a. If the proposal is irregular as specified in Section 20, paragraph 20-09, Irregular Proposals.
- b. If the bidder is disqualified for any of the reasons specified Section 20, paragraph 20-14, Disqualification of Bidders.

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

30-02 Award of contract. The award of a contract, if it is to be awarded, shall be made as specified in Division I.

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

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

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

30-05 Requirements of contract bonds. At the time of the execution of the contract, the successful bidder shall furnish the Owner a surety bond or bonds that have been fully executed by the bidder and the surety guaranteeing the performance of the work and the payment of all legal debts that may be incurred by reason of the Contractor's performance of the work. The surety and the form of the bond or bonds shall be acceptable to the Owner. Unless otherwise specified in this subsection, the surety bond or bonds shall be in a sum equal to the full amount of the contract.

30-06 Execution of contract. The successful bidder shall sign (execute) the necessary agreements for entering into the contract and return the signed contract to the Owner, along with the fully executed surety bond or bonds specified in paragraph 30-05, Requirements of Contract Bonds, of this section, within 10 calendar days from the date mailed or otherwise delivered to the successful bidder.

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

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

END OF SECTION 30

SECTION 40 SCOPE OF WORK

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

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

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

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

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

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

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

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

When determined by the RPR to be in the Owner's best interest, the RPR may order the Contractor to proceed with extra work as provided in Section 90, paragraph 90-05, Payment for Extra Work. Extra work that is necessary for acceptable completion of the project but is not within the general scope of the work covered by the original contract shall be covered by a supplemental agreement as defined in Section 10, paragraph 10-59, Supplemental Agreement.

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

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

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

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

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

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

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

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

Except as provided in Section 40, paragraph 40-07, Rights in and Use of Materials Found in the Work, it is intended that all existing materials or structures that may be encountered (within the lines, grades, or grading sections established for completion of the work) shall be used in the work as otherwise provided for in the contract and shall remain the property of the Owner when so used in the work.

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

- a. Use such material in another contract item, providing such use is approved by the RPR and is in conformance with the contract specifications applicable to such use; or,
- b. Remove such material from the site, upon written approval of the RPR; or
- c. Use such material for the Contractor's own temporary construction on site; or,
- d. Use such material as intended by the terms of the contract.

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

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

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

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

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

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

END OF SECTION 40

SECTION 50 CONTROL OF WORK

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

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

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

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

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

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

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

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

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

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

50-04 Order of Precedence. Order of precedence of the Contract Documents is as follows:

Contractor shall comply with all applicable County, State, and Federal Codes, Laws, Statutes, Regulations, Ordinances, and Policies, as applicable, in the performance of the Contract.

When a conflict in documentation occurs, the governing ranking of Contract parts in descending order is:

1. Applicable Laws and Regulations.
2. Permits.
3. Executed Change Orders (more recent controlling).
4. Executed Contract Agreement for Airport Construction and Performance and Payment Bonds.
5. Bid Addendums.
6. Bid Schedule.
7. Special Provisions for Airport Construction (Division IV: A-130 Wage Rate and DBE Requirements).
8. Special Provisions for Airport Construction: All Other Documents (Division IV)
9. Construction Safety and Phasing Plan.
10. Technical Specifications (Division V).
11. Project Plans/Drawings (detailed plans having greater precedence).
12. Advertisement for Bids.
13. Instructions to Bidders.
14. General Conditions (Division III, Part 2).
15. General Contract Provisions (Division III, Part 1).
16. County Special Condition (Division VI, Part 2).
17. PMFD – Project Management (Division VI, Part 1).
16. Required Federal Contract Provisions (Division II).
17. Division VII – All Items
17. All other items not previously referenced on this list.

In the event that a conflict occurs in items of equal precedence, the first item listed in the document shall govern.

50-05 Cooperation of Contractor. The Contractor shall be supplied with one hard copy and an electronic PDF of the plans and specifications. The Contractor shall have available on the construction site at all times one hardcopy each of the plans and specifications.

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

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

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

Each Contractor involved shall assume all liability, financial or otherwise, in connection with their own contract and shall protect and hold harmless the Owner from any and all damages or claims that may arise

because of inconvenience, delays, or loss experienced because of the presence and operations of other Contractors working within the limits of the same project.

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

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

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

Copies of survey notes will be provided to the RPR for each area of construction and for each placement of material as specified to allow the RPR to make periodic checks for conformance with plan grades, alignments and grade tolerances required by the applicable material specifications. Surveys will be provided to the RPR prior to commencing work items that cover or disturb the survey staking. Survey(s) and notes shall be provided in the following format(s): AutoCAD 2018.

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

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

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

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

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

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

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

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

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

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner in accordance with the provisions of Section 70, paragraph 70-14, Contractor's Responsibility for Work.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

50-17 Value Engineering Cost Proposal. Not applicable.

END OF SECTION 50

SECTION 60 CONTROL OF MATERIALS

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

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

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

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

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

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

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

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

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

60-03 Certification of compliance/analysis (COC/COA). The RPR may permit the use, prior to sampling and testing, of certain materials or assemblies when accompanied by manufacturer's COC stating that such materials or assemblies fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer. Each lot of such materials or assemblies delivered to the work must be accompanied by a certificate of compliance in which the lot is clearly identified. The COA is the manufacturer's COC and includes all applicable test results.

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

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

When a material or assembly is specified by "brand name or equal" and the Contractor elects to furnish the specified "or equal," the Contractor shall be required to furnish the manufacturer's certificate of compliance

for each lot of such material or assembly delivered to the work. Such certificate of compliance shall clearly identify each lot delivered and shall certify as to:

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

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

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

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

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

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

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

60-05 Engineer/ Resident Project Representative (RPR) field office. An Engineer/RPR field office is not required.

60-06 Storage of materials. Materials shall be stored to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located to facilitate their prompt inspection. The Contractor shall coordinate the storage of all materials with the RPR. Materials to be stored on airport property shall not create an obstruction to air navigation nor shall they interfere with the free and unobstructed movement of aircraft. Unless otherwise shown on the plans and/or CSPP, the storage of materials and the location of the Contractor's plant and parked equipment or vehicles shall be as directed by the RPR. Private property shall not be used for storage purposes without written permission of the Owner or lessee of such property. The Contractor shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the Contractor shall furnish the RPR a copy of the property Owner's permission.

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

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

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

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

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

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

END OF SECTION 60

SECTION 70 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC

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

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

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

70-04 Restoration of surfaces disturbed by others. The Owner reserves the right to authorize the construction, reconstruction, or maintenance of any public or private utility service, FAA or National Oceanic and Atmospheric Administration (NOAA) facility, or a utility service of another government agency at any time during the progress of the work. To the extent that such construction, reconstruction, or maintenance has been coordinated with the Owner, such authorized work (by others) must be shown on the plans and is indicated as follows: No on-going construction, beyond routine maintenance, is expected during this project.

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

Should the Owner of public or private utility service, FAA, or NOAA facility, or a utility service of another government agency be authorized to construct, reconstruct, or maintain such utility service or facility during the progress of the work, the Contractor shall cooperate with such Owners by arranging and performing the work in this contract to facilitate such construction, reconstruction or maintenance by others whether or not such work by others is listed above. When ordered as extra work by the RPR, the Contractor shall make all necessary repairs to the work which are due to such authorized work by others, unless otherwise provided for in the contract, plans, or specifications. It is understood and agreed that the Contractor shall not be entitled to make any claim for damages due to such authorized work by others or for any delay to the work resulting from such authorized work.

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

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

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

The Contractor shall maintain the free and unobstructed movement of aircraft and vehicular traffic with respect to their own operations and those of their own subcontractors and all suppliers in accordance with

Section 40, paragraph 40-05, Maintenance of Traffic, and shall limit such operations for the convenience and safety of the traveling public as specified in Section 80, paragraph 80-04, Limitation of Operations.

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

70-08 Construction Safety and Phasing Plan (CSPP). The Contractor shall complete the work in accordance with the approved Construction Safety and Phasing Plan (CSPP) developed in accordance with AC 150/5370-2, Operational Safety on Airports During Construction. The CSPP is on the G-series of the project plan sheets.

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

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

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

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

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

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

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

See CSPP.

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

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

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

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

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

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

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

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

To the extent that such public or private utility services, FAA, or NOAA facilities, or utility services of another governmental agency are known to exist within the limits of the contract work, the approximate locations have been indicated on the plans. The PERSONS to CONTACT will be discussed at the Pre-Construction Meeting.

Prior to any construction work, the Contractor shall notify the Airport and the utility purveyors two full working days (48 hours minimum) in advance of any construction activities that could affect any underground utility; this includes pavement removal, excavation, and vault work.

The contractor performing the work on this project shall become familiar with the site and shall be solely responsible for any damage to existing facilities/utilities resulting directly or indirectly from the construction operations, whether or not the facility/utility is shown on the plans. Utility line locations were taken from available record data and were not located in the field, unless otherwise noted on the plans. The Contractor shall be responsible for accurately locating all existing underground utilities prior to work.

It is understood and agreed that the Owner does not guarantee the accuracy or the completeness of the location information relating to existing utility services, facilities, or structures that may be shown on the plans or encountered in the work. Any inaccuracy or omission in such information shall not relieve the Contractor of the responsibility to protect such existing features from damage or unscheduled interruption of service.

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

In addition to the general written notification provided, it shall be the responsibility of the Contractor to keep such individual Owners advised of changes in their plan of operations that would affect such Owners.

Prior to beginning the work in the general vicinity of an existing utility service or facility, the Contractor shall again notify each such Owner of their plan of operation. If, in the Contractor's opinion, the Owner's assistance is needed to locate the utility service or facility or the presence of a representative of the Owner is desirable to observe the work, such advice should be included in the notification. Such notification shall be given by the most expeditious means to reach the utility owner's "Person to Contact" no later than two normal business days prior to the Contractor's commencement of operations in such general vicinity. The Contractor shall furnish a written summary of the notification to the RPR.

The Contractor's failure to give the two days' notice shall be cause for the Owner to suspend the Contractor's operations in the general vicinity of a utility service or facility.

Where the outside limits of an underground utility service have been located and staked on the ground, the Contractor shall be required to use hand excavation methods within 3 feet (1 m) of such outside limits at such points as may be required to ensure protection from damage due to the Contractor's operations.

Should the Contractor damage or interrupt the operation of a utility service or facility by accident or otherwise, the Contractor shall immediately notify the proper authority and the RPR and shall take all reasonable measures to prevent further damage or interruption of service. The Contractor, in such events, shall cooperate with the utility service or facility owner and the RPR continuously until such damage has been repaired and service restored to the satisfaction of the utility or facility owner.

The Contractor shall bear all costs of damage and restoration of service to any utility service or facility due to their operations whether due to negligence or accident. The Owner reserves the right to deduct such costs from any monies due or which may become due the Contractor, or their own surety.

70-15.1 FAA facilities and cable runs. The Contractor is hereby advised that the construction limits of the project include existing facilities and buried cable runs that are owned, operated and maintained by the FAA. The Contractor, during the execution of the project work, shall comply with the following:

a. The Contractor shall permit FAA maintenance personnel the right of access to the project work site for purposes of inspecting and maintaining all existing FAA owned facilities.

b. The Contractor shall provide notice to the FAA Air Traffic Organization (ATO)/Technical Operations/System Support Center (SSC) Point-of-Contact through the airport Owner a minimum of seven (7) calendar days prior to commencement of construction activities in order to permit sufficient time to locate and mark existing buried cables and to schedule any required facility outages.

c. If execution of the project work requires a facility outage, the Contractor shall contact the FAA Point-of-Contact a minimum of 72 hours prior to the time of the required outage.

d. Any damage to FAA cables, access roads, or FAA facilities during construction caused by the Contractor's equipment or personnel whether by negligence or accident will require the Contractor to repair or replace the damaged cables, access road, or FAA facilities to FAA requirements. The Contractor shall not bear the cost to repair damage to underground facilities or utilities improperly located by the FAA.

e. If the project work requires the cutting or splicing of FAA owned cables, the FAA Point-of-Contact shall be contacted a minimum of 72 hours prior to the time the cable work commences. The FAA reserves the right to have a FAA representative on site to observe the splicing of the cables as a condition of

acceptance. All cable splices are to be accomplished in accordance with FAA specifications and require approval by the FAA Point-of-Contact as a condition of acceptance by the Owner. The Contractor is hereby advised that FAA restricts the location of where splices may be installed. If a cable splice is required in a location that is not permitted by FAA, the Contractor shall furnish and install a sufficient length of new cable that eliminates the need for any splice.

70-16 Furnishing rights-of-way. The Owner will be responsible for furnishing all rights-of-way upon which the work is to be constructed in advance of the Contractor's operations.

70-17 Personal liability of public officials. In carrying out any of the contract provisions or in exercising any power or authority granted by this contract, there shall be no liability upon the Engineer, RPR, their authorized representatives, or any officials of the Owner either personally or as an official of the Owner. It is understood that in such matters they act solely as agents and representatives of the Owner.

70-18 No waiver of legal rights. Upon completion of the work, the Owner will expeditiously make final inspection and notify the Contractor of final acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the Owner be precluded or stopped from recovering from the Contractor or their surety, or both, such overpayment as may be sustained, or by failure on the part of the Contractor to fulfill their obligations under the contract. A waiver on the part of the Owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor, without prejudice to the terms of the contract, shall be liable to the Owner for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Owner's rights under any warranty or guaranty.

70-19 Environmental protection. The Contractor shall comply with all federal, state, and local laws and regulations controlling pollution of the environment. The Contractor shall take necessary precautions to prevent pollution of streams, lakes, ponds, and reservoirs with fuels, oils, asphalts, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.

70-20 Archaeological and historical findings. Unless otherwise specified in this subsection, the Contractor is advised that the site of the work is not within any property, district, or site, and does not contain any building, structure, or object listed in the current National Register of Historic Places published by the United States Department of Interior.

Should the Contractor encounter, during their operations, any building, part of a building, structure, or object that is incongruous with its surroundings, the Contractor shall immediately cease operations in that location and notify the RPR. The RPR will immediately investigate the Contractor's finding and the Owner will direct the Contractor to either resume operations or to suspend operations as directed.

Should the Owner order suspension of the Contractor's operations in order to protect an archaeological or historical finding, or order the Contractor to perform extra work, such shall be covered by an appropriate contract change order or supplemental agreement as provided in Section 40, paragraph 40-04, Extra Work, and Section 90, paragraph 90-05, Payment for Extra Work. If appropriate, the contract change order or supplemental agreement shall include an extension of contract time in accordance with Section 80, paragraph 80-07, Determination and Extension of Contract Time.

70-21 Insurance Requirements. See Contract documents.

END OF SECTION 70

SECTION 80 EXECUTION AND PROGRESS

80-01 Subletting of contract. The Owner will not recognize any subcontractor on the work. The Contractor shall at all times when work is in progress be represented either in person, by a qualified superintendent, or by other designated, qualified representative who is duly authorized to receive and execute orders of the Resident Project Representative (RPR).

The Contractor shall perform, with his organization, an amount of work equal to at least 25 percent of the total contract cost.

Should the Contractor elect to assign their contract, said assignment shall be concurred in by the surety, shall be presented for the consideration and approval of the Owner, and shall be consummated only on the written approval of the Owner.

The Contractor shall provide copies of all subcontracts to the RPR 14 days prior to being utilized on the project. As a minimum, the information shall include the following:

- Subcontractor's legal company name.
- Subcontractor's legal company address, including County name.
- Principal contact person's name, telephone and fax number.
- Complete narrative description, and dollar value of the work to be performed by the subcontractor.
- Copies of required insurance certificates in accordance with the specifications.
- Minority/ non-minority status.

80-02 Notice to proceed (NTP). The Owners notice to proceed will state the date on which contract time commences. The Contractor is expected to commence project operations within 10 days of the NTP date. The Contractor shall notify the RPR at least 24 hours in advance of the time contract operations begins. The Contractor shall not commence any actual operations prior to the date on which the notice to proceed is issued by the Owner.

80-03 Execution and progress. Unless otherwise specified, the Contractor shall submit their coordinated construction schedule showing all work activities for the RPR's review and acceptance at least 10 days prior to the start of work. The Contractor's progress schedule, once accepted by the RPR, will represent the Contractor's baseline plan to accomplish the project in accordance with the terms and conditions of the Contract. The RPR will compare actual Contractor progress against the baseline schedule to determine that status of the Contractor's performance. The Contractor shall provide sufficient materials, equipment, and labor to guarantee the completion of the project in accordance with the plans and specifications within the time set forth in the proposal.

If the Contractor falls significantly behind the submitted schedule, the Contractor shall, upon the RPR's request, submit a revised schedule for completion of the work within the contract time and modify their operations to provide such additional materials, equipment, and labor necessary to meet the revised schedule. Should the execution of the work be discontinued for any reason, the Contractor shall notify the RPR at least 24 hours in advance of resuming operations.

The Contractor shall not commence any actual construction prior to the date on which the NTP is issued by the Owner.

80-04 Limitation of operations. The Contractor shall control their operations and the operations of their subcontractors and all suppliers to provide for the free and unobstructed movement of aircraft in the air operations areas (AOA) of the airport.

When the work requires the Contractor to conduct their operations within an AOA of the airport, the work shall be coordinated with airport operations (through the RPR) at least 48 hours prior to commencement of such work. The Contractor shall not close an AOA until so authorized by the RPR and until the necessary

temporary marking, signage and associated lighting is in place as provided in Section 70, paragraph 70-08, Construction Safety and Phasing Plan (CSPP).

When the contract work requires the Contractor to work within an AOA of the airport on an intermittent basis (intermittent opening and closing of the AOA), the Contractor shall maintain constant communications as specified; immediately obey all instructions to vacate the AOA; and immediately obey all instructions to resume work in such AOA. Failure to maintain the specified communications or to obey instructions shall be cause for suspension of the Contractor's operations in the AOA until satisfactory conditions are provided. The areas of the AOA identified in the Construction Safety Phasing Plan (CSPP) and as listed below, cannot be closed to operating aircraft to permit the Contractor's operations on a continuous basis and will therefore be closed to aircraft operations intermittently as follows:

Per the Construction Safety and Phasing Plan.

The Contractor shall be required to conform to safety standards contained in AC 150/5370-2, Operational Safety on Airports During Construction and the approved CSPP.

80-04.1 Operational safety on airport during construction. All Contractors' operations shall be conducted in accordance with the approved project Construction Safety and Phasing Plan (CSPP) and the Safety Plan Compliance Document (SPCD) and the provisions set forth within the current version of AC 150/5370-2, Operational Safety on Airports During Construction. The CSPP included within the contract documents conveys minimum requirements for operational safety on the airport during construction activities. The Contractor shall prepare and submit a SPCD that details how it proposes to comply with the requirements presented within the CSPP.

The Contractor shall implement all necessary safety plan measures prior to commencement of any work activity. The Contractor shall conduct routine checks to assure compliance with the safety plan measures.

The Contractor is responsible to the Owner for the conduct of all subcontractors it employs on the project. The Contractor shall assure that all subcontractors are made aware of the requirements of the CSPP and SPCD and that they implement and maintain all necessary measures.

No deviation or modifications may be made to the approved CSPP and SPCD unless approved in writing by the Owner. The necessary coordination actions to review Contractor proposed modifications to an approved CSPP or approved SPCD can require a significant amount of time.

80-05 Character of workers, methods, and equipment. The Contractor shall, at all times, employ sufficient labor and equipment for prosecuting the work to full completion in the manner and time required by the contract, plans, and specifications.

All workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform the work satisfactorily.

Any person employed by the Contractor or by any subcontractor who violates any operational regulations or operational safety requirements and, in the opinion of the RPR, does not perform his work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the RPR, be removed immediately by the Contractor or subcontractor employing such person, and shall not be employed again in any portion of the work without approval of the RPR.

Should the Contractor fail to remove such person or persons, or fail to furnish suitable and sufficient personnel for the proper execution of the work, the RPR may suspend the work by written notice until compliance with such orders.

All equipment that is proposed to be used on the work shall be of sufficient size and in such mechanical condition as to meet requirements of the work and to produce a satisfactory quality of work. Equipment used on any portion of the work shall not cause injury to previously completed work, adjacent property, or existing airport facilities due to its use.

When the methods and equipment to be used by the Contractor in accomplishing the work are not prescribed in the contract, the Contractor is free to use any methods or equipment that will accomplish the work in conformity with the requirements of the contract, plans, and specifications.

When the contract specifies the use of certain methods and equipment, such methods and equipment shall be used unless otherwise authorized by the RPR. If the Contractor desires to use a method or type of equipment other than specified in the contract, the Contractor may request authority from the RPR to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the RPR determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of specified quality, or take such other corrective action as the RPR may direct. No change will be made in basis of payment for the contract items involved nor in contract time as a result of authorizing a change in methods or equipment under this paragraph.

80-06 Temporary suspension of the work. The Owner shall have the authority to suspend the work wholly, or in part, for such period or periods the Owner may deem necessary, due to unsuitable weather, or other conditions considered unfavorable for the execution of the work, or for such time necessary due to the failure on the part of the Contractor to carry out orders given or perform any or all provisions of the contract.

In the event that the Contractor is ordered by the Owner, in writing, to suspend work for some unforeseen cause not otherwise provided for in the contract and over which the Contractor has no control, the Contractor may be reimbursed for actual money expended on the work during the period of shutdown. No allowance will be made for anticipated profits. The period of shutdown shall be computed from the effective date of the written order to suspend work to the effective date of the written order to resume the work. Claims for such compensation shall be filed with the RPR within the time period stated in the RPR's order to resume work. The Contractor shall submit with their own claim information substantiating the amount shown on the claim. The RPR will forward the Contractor's claim to the Owner for consideration in accordance with local laws or ordinances. No provision of this article shall be construed as entitling the Contractor to compensation for delays due to inclement weather or for any other delay provided for in the contract, plans, or specifications.

If it becomes necessary to suspend work for an indefinite period, the Contractor shall store all materials in such manner that they will not become an obstruction nor become damaged in any way. The Contractor shall take every precaution to prevent damage or deterioration of the work performed and provide for normal drainage of the work. The Contractor shall erect temporary structures where necessary to provide for traffic on, to, or from the airport.

80-07 Determination and extension of contract time. The number of calendar or working days shall be stated in the proposal and contract and shall be known as the Contract Time.

If the contract time requires extension for reasons beyond the Contractor's control, it shall be adjusted as follows:

80-07.1 Contract time based on calendar days. Contract Time based on calendar days shall consist of the number of calendar days stated in the contract counting from the effective date of the Notice to Proceed and including all Saturdays, Sundays, holidays, and non-work days. All calendar days elapsing between the effective dates of the Owner's orders to suspend and resume all work, due to causes not the fault of the Contractor, shall be excluded.

At the time of final payment, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in the contract time shall not consider either cost of work or the extension of contract time that has been covered by a change order or supplemental agreement. Charges against the contract time will cease as of the date of final acceptance.

80-08 Failure to complete on time. For each calendar day or working day, as specified in the contract, that any work remains uncompleted after the contract time (including all extensions and adjustments as provided in paragraph 80-07, Determination and Extension of Contract Time) the sum specified in the contract and proposal as liquidated damages (LD) will be deducted from any money due or to become due

the Contractor or their own surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional engineering services that will be incurred by the Owner should the Contractor fail to complete the work in the time provided in their contract.

The maximum construction time allowed will be the sum of the time allowed for individual schedules but not more than 14 days. Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the Owner of any of its rights under the contract.

80-09 Default and termination of contract. The Contractor shall be considered in default of their contract and such default will be considered as cause for the Owner to terminate the contract for any of the following reasons, if the Contractor:

- a. Fails to begin the work under the contract within the time specified in the Notice to Proceed, or
- b. Fails to perform the work or fails to provide sufficient workers, equipment and/or materials to assure completion of work in accordance with the terms of the contract, or
- c. Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or
- d. Discontinues the execution of the work, or
- e. Fails to resume work which has been discontinued within a reasonable time after notice to do so, or
- f. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or
- g. Allows any final judgment to stand against the Contractor unsatisfied for a period of 10 days, or
- h. Makes an assignment for the benefit of creditors, or
- i. For any other cause whatsoever, fails to carry on the work in an acceptable manner.

Should the Owner consider the Contractor in default of the contract for any reason above, the Owner shall immediately give written notice to the Contractor and the Contractor's surety as to the reasons for considering the Contractor in default and the Owner's intentions to terminate the contract.

If the Contractor or surety, within a period of 10 days after such notice, does not proceed in accordance therewith, then the Owner will, upon written notification from the RPR of the facts of such delay, neglect, or default and the Contractor's failure to comply with such notice, have full power and authority without violating the contract, to take the execution of the work out of the hands of the Contractor. The Owner may appropriate or use any or all materials and equipment that have been mobilized for use in the work and are acceptable and may enter into an agreement for the completion of said contract according to the terms and provisions thereof, or use such other methods as in the opinion of the RPR will be required for the completion of said contract in an acceptable manner.

All costs and charges incurred by the Owner, together with the cost of completing the work under contract, will be deducted from any monies due or which may become due the Contractor. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay to the Owner the amount of such excess.

80-10 Termination for national emergencies. The Owner shall terminate the contract or portion thereof by written notice when the Contractor is prevented from proceeding with the construction contract as a direct result of an Executive Order of the President with respect to the execution of war or in the interest of national defense.

When the contract, or any portion thereof, is terminated before completion of all items of work in the contract, payment will be made for the actual number of units or items of work completed at the contract price or as mutually agreed for items of work partially completed or not started. No claims or loss of anticipated profits shall be considered.

Reimbursement for organization of the work, and other overhead expenses, (when not otherwise included in the contract) and moving equipment and materials to and from the job will be considered, the intent being that an equitable settlement will be made with the Contractor.

Acceptable materials, obtained or ordered by the Contractor for the work and that are not incorporated in the work shall, at the option of the Contractor, be purchased from the Contractor at actual cost as shown by receipted bills and actual cost records at such points of delivery as may be designated by the RPR.

Termination of the contract or a portion thereof shall neither relieve the Contractor of their responsibilities for the completed work nor shall it relieve their surety of its obligation for and concerning any just claim arising out of the work performed.

80-11 Work area, storage area and sequence of operations. The Contractor shall obtain approval from the RPR prior to beginning any work in all areas of the airport. No operating runway, taxiway, or air operations area (AOA) shall be crossed, entered, or obstructed while it is operational. The Contractor shall plan and coordinate work in accordance with the approved CSPP and SPCD.

END OF SECTION 80

SECTION 90 MEASUREMENT AND PAYMENT

90-01 Measurement of quantities. All work completed under the contract will be measured by the RPR, or their authorized representatives, using United States Customary Units of Measurement.

The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice.

Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures (or leave-outs) having an area of 9 square feet (0.8 square meters) or less. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the plans or ordered in writing by the RPR.

Unless otherwise specified, all contract items which are measured by the linear foot such as electrical ducts, conduits, pipe culverts, underdrains, and similar items shall be measured parallel to the base or foundation upon which such items are placed.

The term "lump sum" when used as an item of payment will mean complete payment for the work described in the contract. When a complete structure or structural unit (in effect, "lump sum" work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories.

When requested by the Contractor and approved by the RPR in writing, material specified to be measured by the cubic yard (cubic meter) may be weighed, and such weights will be converted to cubic yards (cubic meters) for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the RPR and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

Measurement and Payment Terms

Term	Description
Excavation and Embankment Volume	In computing volumes of excavation, the average end area method will be used unless otherwise specified.
Measurement and Proportion by Weight	The term "ton" will mean the short ton consisting of 2,000 pounds (907 kg) avoirdupois. All materials that are measured or proportioned by weights shall be weighed on accurate, independently certified scales by competent, qualified personnel at locations designated by the RPR. If material is shipped by rail, the car weight may be accepted provided that only the actual weight of material is paid for. However, car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as the RPR directs, and each truck shall bear a plainly legible identification mark.
Measurement by Volume	Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable for the materials hauled, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles shall be loaded to at least their water level capacity, and all loads shall be leveled when the vehicles arrive at the point of delivery.
Asphalt Material	Asphalt materials will be measured by the gallon (liter) or ton (kg). When measured by volume, such volumes will be measured at 60°F (16°C) or will be corrected to the volume at 60°F (16°C) using ASTM D1250 for asphalts. Net certified scale weights or weights based on certified volumes in the case of rail shipments will be

Term	Description
	used as a basis of measurement, subject to correction when asphalt material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work. When asphalt materials are shipped by truck or transport, net certified weights by volume, subject to correction for loss or foaming, will be used for computing quantities.
Cement	Cement will be measured by the ton (kg) or hundredweight (km).
Structure	Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.
Timber	Timber will be measured by the thousand feet board measure (MFBM) actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.
Plates and Sheets	The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fraction of inch.
Miscellaneous Items	When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gauge, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.
Scales	Scales must be tested for accuracy and serviced before use. Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected, and maintained by the Contractor, or be certified permanently installed commercial scales. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end. Scales shall be accurate within 0.5% of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the RPR before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed 0.1% of the nominal rated capacity of the scale, but not less than one pound (454 grams). The use of spring balances will not be permitted. In the event inspection reveals the scales have been "overweighing" (indicating more than correct weight) they will be immediately adjusted. All materials received subsequent to the last previous correct weighting-accuracy test will be reduced by the percentage of error in excess of 0.5%. In the event inspection reveals the scales have been under-weighing (indicating less than correct weight), they shall be immediately adjusted. No additional payment to the Contractor will be allowed for materials previously weighed and recorded. Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the RPR can safely and conveniently view them. Scale installations shall have available ten standard 50-pound (2.3 km) weights for testing the weighing equipment or suitable weights and devices for other approved equipment.

Term	Description
	All costs in connection with furnishing, installing, certifying, testing, and maintaining scales; for furnishing check weights and scale house; and for all other items specified in this subsection, for the weighing of materials for proportioning or payment, shall be included in the unit contract prices for the various items of the project.
Rental Equipment	Rental of equipment will be measured by time in hours of actual working time and necessary traveling time of the equipment within the limits of the work. Special equipment ordered in connection with extra work will be measured as agreed in the change order or supplemental agreement authorizing such work as provided in paragraph 90-05 Payment for Extra Work.
Pay Quantities	When the estimated quantities for a specific portion of the work are designated as the pay quantities in the contract, they shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the RPR. If revised dimensions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions.

90-02 Scope of payment. The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials, for performing all work under the contract in a complete and acceptable manner, and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the execution thereof, subject to the provisions of Section 70, paragraph 70-18, No Waiver of Legal Rights.

When the "basis of payment" subsection of a technical specification requires that the contract price (price bid) include compensation for certain work or material essential to the item, this same work or material will not also be measured for payment under any other contract item which may appear elsewhere in the contract, plans, or specifications.

90-03 Compensation for altered quantities. When the accepted quantities of work vary from the quantities in the proposal, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract price for the accepted quantities of work actually completed and accepted. No allowance, except as provided for in Section 40, paragraph 40-02, Alteration of Work and Quantities, will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor which results directly from such alterations or indirectly from their own unbalanced allocation of overhead and profit among the contract items, or from any other cause.

90-04 Payment for omitted items. As specified in Section 40, paragraph 40-03, Omitted Items, the RPR shall have the right to omit from the work (order nonperformance) any contract item, except major contract items, in the best interest of the Owner.

Should the RPR omit or order nonperformance of a contract item or portion of such item from the work, the Contractor shall accept payment in full at the contract prices for any work actually completed and acceptable prior to the RPR's order to omit or non-perform such contract item.

Acceptable materials ordered by the Contractor or delivered on the work prior to the date of the RPR's order will be paid for at the actual cost to the Contractor and shall thereupon become the property of the Owner.

In addition to the reimbursement hereinbefore provided, the Contractor shall be reimbursed for all actual costs incurred for the purpose of performing the omitted contract item prior to the date of the RPR's order. Such additional costs incurred by the Contractor must be directly related to the deleted contract item and shall be supported by certified statements by the Contractor as to the nature the amount of such costs.

90-05 Payment for extra work. Extra work, performed in accordance with Section 40, paragraph 40-04, Extra Work, will be paid for at the contract prices or agreed prices specified in the change order or supplemental agreement authorizing the extra work.

90-06 Partial payments. Partial payments will be made to the Contractor at least once each month as the work progresses. Said payments will be based upon estimates, prepared by the RPR, of the value of the work performed and materials complete and in place, in accordance with the contract, plans, and specifications. Such partial payments may also include the delivered actual cost of those materials stockpiled and stored in accordance with paragraph 90-07, Payment for Materials on Hand. No partial payment will be made when the amount due to the Contractor since the last estimate amounts to less than five hundred dollars.

Retainage will not be withheld on this project. No retainage will be withheld by the Owner from progress payments due the prime Contractor. Retainage by the prime or subcontractors is prohibited, and no retainage will be held by the prime from progress due subcontractors.

The Contractor is required to pay all subcontractors for satisfactory performance of their contracts no later than 30 days after the Contractor has received a partial payment. A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented as required by the Owner. When the Owner has made an incremental acceptance of a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed.

When at least 95% of the project work has been completed to the satisfaction of the RPR, the RPR shall, at the Owner's discretion and with the consent of the surety, prepare estimates of both the contract value and the cost of the remaining work to be done.

It is understood and agreed that the Contractor shall not be entitled to demand or receive partial payment based on quantities of work in excess of those provided in the proposal or covered by approved change orders or supplemental agreements, except when such excess quantities have been determined by the RPR to be a part of the final quantity for the item of work in question.

No partial payment shall bind the Owner to the acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at the time of final payment as provided in paragraph 90-09, Acceptance and Final Payment.

The Contractor shall deliver to the Owner a complete release of all claims for labor and material arising out of this contract before the final payment is made. If any subcontractor or supplier fails to furnish such a release in full, the Contractor may furnish a bond or other collateral satisfactory to the Owner to indemnify the Owner against any potential lien or other such claim. The bond or collateral shall include all costs, expenses, and attorney fees the Owner may be compelled to pay in discharging any such lien or claim.

90-07 Payment for materials on hand. Partial payments may be made to the extent of the delivered cost of materials to be incorporated in the work, provided that such materials meet the requirements of the contract, plans, and specifications and are delivered to acceptable sites on the airport property or at other sites in the vicinity that are acceptable to the Owner. Such delivered costs of stored or stockpiled materials may be included in the next partial payment after the following conditions are met:

- a. The material has been stored or stockpiled in a manner acceptable to the RPR at or on an approved site.
- b. The Contractor has furnished the RPR with acceptable evidence of the quantity and quality of such stored or stockpiled materials.
- c. The Contractor has furnished the RPR with satisfactory evidence that the material and transportation costs have been paid.
- d. The Contractor has furnished the Owner legal title (free of liens or encumbrances of any kind) to the material stored or stockpiled.
- e. The Contractor has furnished the Owner evidence that the material stored or stockpiled is insured against loss by damage to or disappearance of such materials at any time prior to use in the work.

It is understood and agreed that the transfer of title and the Owner's payment for such stored or stockpiled materials shall in no way relieve the Contractor of their responsibility for furnishing and placing such materials in accordance with the requirements of the contract, plans, and specifications.

In no case will the amount of partial payments for materials on hand exceed the contract price for such materials or the contract price for the contract item in which the material is intended to be used.

No partial payment will be made for stored or stockpiled living or perishable plant materials.

The Contractor shall bear all costs associated with the partial payment of stored or stockpiled materials in accordance with the provisions of this paragraph.

90-08 Payment of withheld funds. At the Contractor's option, if an Owner withholds retainage in accordance with the methods described in paragraph 90-06 Partial Payments, the Contractor may request that the Owner deposit the retainage into an escrow account. The Owner's deposit of retainage into an escrow account is subject to the following conditions:

a. The Contractor shall bear all expenses of establishing and maintaining an escrow account and escrow agreement acceptable to the Owner.

b. The Contractor shall deposit to and maintain in such escrow only those securities or bank certificates of deposit as are acceptable to the Owner and having a value not less than the retainage that would otherwise be withheld from partial payment.

c. The Contractor shall enter into an escrow agreement satisfactory to the Owner.

d. The Contractor shall obtain the written consent of the surety to such agreement.

90-09 Acceptance and final payment. When the contract work has been accepted in accordance with the requirements of Section 50, paragraph 50-15, Final Acceptance, the RPR will prepare the final estimate of the items of work actually performed. The Contractor shall approve the RPR's final estimate or advise the RPR of the Contractor's objections to the final estimate which are based on disputes in measurements or computations of the final quantities to be paid under the contract as amended by change order or supplemental agreement. The Contractor and the RPR shall resolve all disputes (if any) in the measurement and computation of final quantities to be paid within 30 calendar days of the Contractor's receipt of the RPR's final estimate. If, after such 30-day period, a dispute still exists, the Contractor may approve the RPR's estimate under protest of the quantities in dispute, and such disputed quantities shall be considered by the Owner as a claim in accordance with Section 50, paragraph 50-16, Claims for Adjustment and Disputes.

After the Contractor has approved, or approved under protest, the RPR's final estimate, and after the RPR's receipt of the project closeout documentation required in paragraph 90-11, Contractor Final Project Documentation, final payment will be processed based on the entire sum, or the undisputed sum in case of approval under protest, determined to be due the Contractor less all previous payments and all amounts to be deducted under the provisions of the contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

If the Contractor has filed a claim for additional compensation under the provisions of Section 50, paragraph 50-16, Claims for Adjustments and Disputes, or under the provisions of this paragraph, such claims will be considered by the Owner in accordance with local laws or ordinances. Upon final adjudication of such claims, any additional payment determined to be due the Contractor will be paid pursuant to a supplemental final estimate.

90-10 Construction warranty.

a. In addition to any other warranties in this contract, the Contractor warrants that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, workmanship, or design furnished, or performed by the Contractor or any subcontractor or supplier at any tier.

b. This warranty shall continue for a period of one year from the date of final acceptance of the work, except as noted. If the Owner takes possession of any part of the work before final acceptance, this warranty shall continue for a period of one year from the date the Owner takes possession.

c. The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Owner real or personal property, when that damage is the result of the Contractor's failure to conform to contract requirements; or any defect of equipment, material, workmanship, or design furnished by the Contractor.

d. The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for one year from the date of repair or replacement.

e. The Owner will notify the Contractor, in writing, within seven (7) days after the discovery of any failure, defect, or damage.

f. If the Contractor fails to remedy any failure, defect, or damage within 14 days after receipt of notice, the Owner shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

g. With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall: (1) Obtain all warranties that would be given in normal commercial practice; (2) Require all warranties to be executed, in writing, for the benefit of the Owner, as directed by the Owner, and (3) Enforce all warranties for the benefit of the Owner.

h. This warranty shall not limit the Owner's rights with respect to latent defects, gross mistakes, or fraud.

90-11 Contractor Final Project Documentation. Approval of final payment to the Contractor is contingent upon completion and submittal of the items listed below. The final payment will not be approved until the RPR approves the Contractor's final submittal. The Contractor shall:

a. Provide two (2) copies of all manufacturers warranties specified for materials, equipment, and installations.

b. Provide weekly payroll records (not previously received) from the general Contractor and all subcontractors.

c. Complete final cleanup in accordance with Section 40, paragraph 40-08, Final Cleanup.

d. Complete all punch list items identified during the Final Inspection.

e. Provide complete release of all claims for labor and material arising out of the Contract.

f. Provide a certified statement signed by the subcontractors, indicating actual amounts paid to the Disadvantaged Business Enterprise (DBE) subcontractors and/or suppliers associated with the project.

g. When applicable per state requirements, return copies of sales tax completion forms.

h. Manufacturer's certifications for all items incorporated in the work.

i. All required record drawings, as-built drawings or as-constructed drawings.

j. Project Operation and Maintenance (O&M) Manual(s).

k. Security for Construction Warranty.

l. Equipment commissioning documentation submitted, if required.

END OF SECTION 90

DIVISION III

Part II - General Construction Items

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NOT FOR BID

Item C-100 Contractor Quality Control Program (CQCP)

100-1 General. Quality is more than test results. Quality is the combination of proper materials, testing, workmanship, equipment, inspection, and documentation of the project. Establishing and maintaining a culture of quality is key to achieving a quality project. The Contractor shall establish, provide, and maintain an effective Contractor Quality Control Program (CQCP) that details the methods and procedures that will be taken to assure that all materials and completed construction required by this contract conform to contract plans, technical specifications, and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors. Although guidelines are established and certain minimum requirements are specified here and elsewhere in the contract technical specifications, the Contractor shall assume full responsibility for accomplishing the stated purpose.

The Contractor shall establish a CQCP that will:

- a. Provide qualified personnel to develop and implement the CQCP.
- b. Provide for the production of acceptable quality materials.
- c. Provide sufficient information to assure that the specification requirements can be met.
- d. Document the CQCP process.

The Contractor shall not begin any construction or production of materials to be incorporated into the completed work until the CQCP has been reviewed and approved by the Resident Project Representative (RPR). No partial payment will be made for materials subject to specific quality control (QC) requirements until the CQCP has been reviewed and approved.

The QC requirements contained in this section and elsewhere in the contract technical specifications are in addition to and separate from the quality assurance (QA) testing requirements. QA testing requirements are the responsibility of the RPR or Contractor as specified in the specifications.

A Quality Control (QC)/Quality Assurance (QA) workshop with the Engineer, Resident Project Representative (RPR), Contractor, subcontractors, testing laboratories, and Owner's representative must be held prior to start of construction. The QC/QA workshop will be facilitated by the Contractor. The Contractor shall coordinate with the Airport and the RPR on time and location of the QC/QA workshop. Items to be addressed, at a minimum, will include:

- a. Review of the CQCP including submittals, QC Testing, Action & Suspension Limits for Production, Corrective Action Plans, Distribution of QC reports, and Control Charts.
- b. Discussion of the QA program.
- c. Discussion of the QC and QA Organization and authority including coordination and information exchange between QC and QA.
- d. Establish regular meetings to discuss control of materials, methods and testing.
- e. Establishment of the overall QC culture.

100-2 Description of program.

a. General description. The Contractor shall establish a CQCP to perform QC inspection and testing of all items of work required by the technical specifications, including those performed by subcontractors. The CQCP shall ensure conformance to applicable specifications and plans with respect to materials, off-site fabrication, workmanship, construction, finish, and functional performance. The CQCP shall be effective for control of all construction work performed under this Contract and shall specifically include surveillance and tests required by the technical specifications, in addition to other requirements of this section and any other activities deemed necessary by the Contractor to establish an effective level of QC.

b. Contractor Quality Control Program (CQCP). The Contractor shall describe the CQCP in a written document that shall be reviewed and approved by the RPR prior to the start of any production, construction, or off-site fabrication. The written CQCP shall be submitted to the RPR for review and approval at least

14 calendar days before the CQCP Workshop. The Contractor's CQCP and QC testing laboratory must be approved in writing by the RPR prior to the Notice to Proceed (NTP).

The CQCP shall be organized to address, as a minimum, the following:

1. QC organization and resumes of key staff
2. Project progress schedule
3. Submittals schedule
4. Inspection requirements
5. QC testing plan
6. Documentation of QC activities and distribution of QC reports
7. Requirements for corrective action when QC and/or QA acceptance criteria are not met
8. Material quality and construction means and methods. Address all elements applicable to the project that affect the quality of the pavement structure including subgrade, subbase, base, and surface course. Some elements that must be addressed include, but is not limited to mix design, aggregate grading, stockpile management, mixing and transporting, placing and finishing, quality control testing and inspection, smoothness, laydown plan, equipment, and temperature management plan.

The Contractor must add any additional elements to the CQCP that is necessary to adequately control all production and/or construction processes required by this contract.

100-3 CQCP organization. The CQCP shall be implemented by the establishment of a QC organization. An organizational chart shall be developed to show all QC personnel, their authority, and how these personnel integrate with other management/production and construction functions and personnel.

The organizational chart shall identify all QC staff by name and function and shall indicate the total staff required to implement all elements of the CQCP, including inspection and testing for each item of work. If necessary, different technicians can be used for specific inspection and testing functions for different items of work. If an outside organization or independent testing laboratory is used for implementation of all or part of the CQCP, the personnel assigned shall be subject to the qualification requirements of paragraphs 100-03a and 100-03b. The organizational chart shall indicate which personnel are Contractor employees and which are provided by an outside organization.

The QC organization shall, as a minimum, consist of the following personnel:

a. Program Administrator. The Contractor Quality Control Program Administrator (CQCPA) must be a full-time employee of the Contractor, or a consultant engaged by the Contractor. The CQCPA must have a minimum of five (5) years of experience in QC pavement construction with prior QC experience on a project of comparable size and scope as the contract.

Included in the five (5) years of paving/QC experience, the CQCPA must meet at least one of the following requirements:

- (1) Professional Engineer with one (1) year of airport paving experience.
- (2) Engineer-in-training with two (2) years of airport paving experience.
- (3) National Institute for Certification in Engineering Technologies (NICET) Civil Engineering Technology Level IV with three (3) years of airport paving experience.
- (4) An individual with four (4) years of airport paving experience, with a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology or Construction.

The CQCPA must have full authority to institute any and all actions necessary for the successful implementation of the CQCP to ensure compliance with the contract plans and technical specifications. The CQCPA authority must include the ability to immediately stop production until materials and/or processes are in compliance with contract specifications. The CQCPA must report directly to a principal officer of the

construction firm. The CQCPA may supervise the Quality Control Program on more than one project provided that person can be at the job site within two (2) hours after being notified of a problem.

b. QC technicians. A sufficient number of QC technicians necessary to adequately implement the CQCP must be provided. These personnel must be either Engineers, engineering technicians, or experienced craftsman with qualifications in the appropriate field equivalent to NICET Level II in Civil Engineering Technology or higher and shall have a minimum of two (2) years of experience in their area of expertise.

The QC technicians must report directly to the CQCPA and shall perform the following functions:

- (1) Inspection of all materials, construction, plant, and equipment for conformance to the technical specifications, and as required by paragraph 100-6.
- (2) Performance of all QC tests as required by the technical specifications and paragraph 100-8.
- (3) Performance of tests for the RPR when required by the technical specifications.

Certification at an equivalent level of qualification and experience by a state or nationally recognized organization will be acceptable in lieu of NICET certification.

c. Staffing levels. The Contractor shall provide sufficient qualified QC personnel to monitor each work activity at all times. Where material is being produced in a plant for incorporation into the work, separate plant and field technicians shall be provided at each plant and field placement location. The scheduling and coordinating of all inspection and testing must match the type and pace of work activity. The CQCP shall state where different technicians will be required for different work elements.

100-4 Project progress schedule. Critical QC activities must be shown on the project schedule as required by Section 80, paragraph 80-03, *Execution and Progress*.

100-5 Submittals schedule. The Contractor shall submit a detailed listing of all submittals (for example, mix designs, material certifications) and shop drawings required by the technical specifications. The listing can be developed in a spreadsheet format and shall include as a minimum:

- a. Specification item number
- b. Item description
- c. Description of submittal
- d. Specification paragraph requiring submittal
- e. Scheduled date of submittal

100-6 Inspection requirements. QC inspection functions shall be organized to provide inspections for all definable features of work, as detailed below. All inspections shall be documented by the Contractor as specified by paragraph 100-9.

Inspections shall be performed as needed to ensure continuing compliance with contract requirements until completion of the particular feature of work. Inspections shall include the following minimum requirements:

- a. Reserved.
- b. During field operations, QC test results and periodic inspections shall be used to ensure the quality of all materials and workmanship. All equipment used in placing, finishing, and compacting shall be inspected to ensure its proper operating condition and to ensure that all such operations are in conformance to the technical specifications and are within the plan dimensions, lines, grades, and tolerances specified. The CQCP shall document how these and other QC functions will be accomplished and used.

100-7 Contractor QC testing facility – Reserved.

100-8 QC testing plan. As a part of the overall CQCP, the Contractor shall implement a QC testing plan, as required by the technical specifications. The testing plan shall include the minimum tests and test frequencies required by each technical specification item, as well as any additional QC tests that the Contractor deems necessary to adequately control production and/or construction processes.

The QC testing plan can be developed in a spreadsheet fashion and shall, as a minimum, include the following:

- a. Specification item number (e.g., P-401)
- b. Item description (e.g., Hot Mix Asphalt Pavements)
- c. Test type (e.g., gradation, grade, asphalt content)
- d. Test standard (e.g., ASTM or American Association of State Highway and Transportation Officials (AASHTO) test number, as applicable)
- e. Test frequency (e.g., as required by technical specifications or minimum frequency when requirements are not stated)
- f. Responsibility (e.g., plant technician)
- g. Control requirements (e.g., target, permissible deviations)

The QC testing plan shall contain a statistically based procedure of random sampling for acquiring test samples in accordance with ASTM D3665. The RPR shall be provided the opportunity to witness QC sampling and testing.

All QC test results shall be documented by the Contractor as required by paragraph 100-9.

100-9 Documentation. The Contractor shall maintain current QC records of all inspections and tests performed. These records shall include factual evidence that the required QC inspections or tests have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, causes for rejection, etc.; proposed remedial action; and corrective actions taken.

These records must cover both conforming and defective or deficient features, and must include a statement that all supplies and materials incorporated in the work are in full compliance with the terms of the contract. Legible copies of these records shall be furnished to the RPR daily. The records shall cover all work placed subsequent to the previously furnished records and shall be verified and signed by the CQCPA.

Contractor QC records required for the contract shall include, but are not necessarily limited to, the following records:

a. Daily inspection reports. Each Contractor QC technician shall maintain a daily log of all inspections performed for both Contractor and subcontractor operations. These technician's daily reports shall provide factual evidence that continuous QC inspections have been performed and shall, as a minimum, include the following:

- (1) Technical specification item number and description
- (2) Compliance with approved submittals
- (3) Proper storage of materials and equipment
- (4) Proper operation of all equipment
- (5) Adherence to plans and technical specifications
- (6) Summary of any necessary corrective actions
- (7) Safety inspection.

The daily inspection reports shall identify all QC inspections and QC tests conducted, results of inspections, location and nature of defects found, causes for rejection, and remedial or corrective actions taken or proposed.

The daily inspection reports shall be signed by the responsible QC technician and the CQCPA. The RPR shall be provided at least one copy of each daily inspection report on the work day following the day of record. When QC inspection and test results are recorded and transmitted electronically, the results must be archived.

b. Daily test reports. The Contractor shall be responsible for establishing a system that will record all QC test results. Daily test reports shall document the following information:

1. Technical specification item number and description
2. Test designation
3. Location
4. Date of test
5. Control requirements
6. Test results
7. Causes for rejection
8. Recommended remedial actions
9. Retests

Test results from each day's work period shall be submitted to the RPR prior to the start of the next day's work period. When required by the technical specifications, the Contractor shall maintain statistical QC charts. When QC daily test results are recorded and transmitted electronically, the results must be archived.

100-10 Corrective action requirements. The CQCP shall indicate the appropriate action to be taken when a process is deemed, or believed, to be out of control (out of tolerance) and detail what action will be taken to bring the process into control. The requirements for corrective action shall include both general requirements for operation of the CQCP as a whole, and for individual items of work contained in the technical specifications.

The CQCP shall detail how the results of QC inspections and tests will be used for determining the need for corrective action and shall contain clear rules to gauge when a process is out of control and the type of correction to be taken to regain process control.

When applicable or required by the technical specifications, the Contractor shall establish and use statistical QC charts for individual QC tests. The requirements for corrective action shall be linked to the control charts.

100-11 Inspection and/or observations by the RPR. All items of material and equipment are subject to inspection and/or observation by the RPR at the point of production, manufacture or shipment to determine if the Contractor, producer, manufacturer or shipper maintains an adequate QC system in conformance with the requirements detailed here and the applicable technical specifications and plans. In addition, all items of materials, equipment and work in place shall be subject to inspection and/or observation by the RPR at the site for the same purpose.

Inspection and/or observations by the RPR does not relieve the Contractor of performing QC inspections of either on-site or off-site Contractor's or subcontractor's work.

100-12 Noncompliance.

a. The Resident Project Representative (RPR) will provide written notice to the Contractor of any noncompliance with their CQCP. After receipt of such notice, the Contractor must take corrective action.

b. When QC activities do not comply with either the CQCP or the contract provisions or when the Contractor fails to properly operate and maintain an effective CQCP, and no effective corrective actions have been taken after notification of non-compliance, the RPR will recommend the Owner take the following actions:

- (1) Order the Contractor to replace ineffective or unqualified QC personnel or subcontractors and/or
- (2) Order the Contractor to stop operations until appropriate corrective actions are taken.

METHOD OF MEASUREMENT

100-13 Basis of measurement and payment. Contractor Quality Control Program (CQCP) shall not be separately measured or paid separately. CQCP shall be considered incidental to all items requiring CQCP.

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

National Institute for Certification in Engineering Technologies (NICET)

ASTM International (ASTM)

ASTM C1077	Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
ASTM D3665	Standard Practice for Random Sampling of Construction Materials
ASTM D3666	Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials

END OF ITEM C-100

Item C-102 Temporary Air and Water Pollution, Soil Erosion, and Siltation Control

DESCRIPTION

102-1. This item shall consist of temporary control measures as shown on the plans or as ordered by the Resident Project Representative (RPR) during the life of a contract to control pollution of air and water, soil erosion, and siltation through the use of silt fences, berms, dikes, dams, sediment basins, fiber mats, gravel, mulches, grasses, slope drains, and other erosion control devices or methods.

Temporary erosion control shall be in accordance with the approved erosion control plan; the approved Construction Safety and Phasing Plan (CSPP) and AC 150/5370-2, *Operational Safety on Airports During Construction*. The temporary erosion control measures contained herein shall be coordinated with the permanent erosion control measures specified as part of this contract to the extent practical to assure economical, effective, and continuous erosion control throughout the construction period.

Temporary control may include work outside the construction limits such as borrow pit operations, equipment and material storage sites, waste areas, and temporary plant sites.

Temporary control measures shall be designed, installed and maintained to minimize the creation of wildlife attractants that have the potential to attract hazardous wildlife on or near public-use airports.

MATERIALS

102-2.1 Grass. Not used.

102-2.2 Mulches. Not used.

102-2.3 Fertilizer. Not used.

102-2.4 Slope drains. Not used.

102-2.5 Silt fence. Not used.

102-2.6 Other. All other materials shall meet commercial grade standards and shall be approved by the RPR before being incorporated into the project.

CONSTRUCTION REQUIREMENTS

102-3.1 General. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.

The RPR shall be responsible for assuring compliance to the extent that construction practices, construction operations, and construction work are involved.

102-3.2 Schedule. Prior to the start of construction, the Contractor shall submit schedules in accordance with the approved Construction Safety and Phasing Plan (CSPP) and the plans for accomplishment of temporary and permanent erosion control work for clearing and grubbing; grading; construction; paving; and structures at watercourses. The Contractor shall also submit a proposed method of erosion and dust control on haul roads and borrow pits and a plan for disposal of waste materials. Work shall not be started until the erosion control schedules and methods of operation for the applicable construction have been accepted by the RPR.

102-3.3 Construction details. The Contractor will be required to incorporate all erosion control features into the project at the earliest practicable time when applicable. When applicable, temporary erosion and pollution control measures will be used to correct conditions that develop during construction that were not foreseen during the design stage; that are needed prior to installation of permanent control features; or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with permanent control features on the project.

The Contractor shall provide immediate permanent or temporary pollution control measures as directed by the RPR to minimize contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment as directed by the RPR. If temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled or directed by the RPR, the work shall be performed by the Contractor and the cost shall be incidental to this item.

If erosion control features are installed by the Contractor, they shall be maintained by the Contractor during the construction period.

Provide temporary structures whenever construction equipment must cross watercourses at frequent intervals. Pollutants such as fuels, lubricants, bitumen, raw sewage, wash water from concrete mixing operations, and other harmful materials shall not be discharged into any waterways, impoundments or into natural or manmade channels.

102-3.4 Installation, maintenance and removal of silt fence. Not used.

102-3.5 Storm Water Discharge Permit. Not used.

METHOD OF MEASUREMENT

102-4.1 Temporary erosion and pollution control work required will be performed as scheduled or directed by the RPR and shall be measured as incidental to the total construction cost of the project. This shall include, but not be limited to, fiber rolls, erosion control blankets, storm drain inlet protection, silt trap, check dam, concrete washout, stabilized construction entrance, or other temporary erosion and pollution control measures as approved by the RPR.

Measures and practices required for compliance with this specification for protection of construction areas outside the construction limits will not be measured and paid for directly but shall be considered as a subsidiary obligation of the Contractor. Measures and practices shall include, but not be limited to, air pollution prevention, water pollution prevention, construction road stabilization, dust control, protecting vegetation, and erosion and sediment control practices required due to the Contractor's means and methods of construction, and for borrow and waste areas, haul roads, equipment and material storage sites, staging areas as shown on the plans, and temporary plant sites.

Completed and accepted work will be measured as follows:

BASIS OF PAYMENT

102-5.1 Accepted quantities of temporary water pollution, soil erosion, and siltation control work ordered by the RPR and measured as provided in paragraph 102-4.1 will be paid for under:

Item C-102-5.1 Compliance with Pollution, Erosion, and Siltation Control – incidental to total construction cost

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Advisory Circulars (AC)

AC 150/5200-33 *Hazardous Wildlife Attractants on or Near Airports*

AC 150/5370-2 *Operational Safety on Airports During Construction*

ASTM International (ASTM)

ASTM D6461 *Standard Specification for Silt Fence Materials*

United States Department of Agriculture (USDA)

FAA/USDA Wildlife Hazard Management at Airports, A Manual for Airport Personnel

END OF ITEM C-102

Item C-105 Mobilization

105-1 Description. This item of work shall consist of, but is not limited to, work and operations necessary for the movement of personnel, equipment, material and supplies to and from the project site for work on the project except as provided in the contract as separate pay items.

105-2 Mobilization limit. Mobilization shall be limited to 10 percent of the total project cost.

105-3 Posted notices. Prior to commencement of construction activities, the Contractor must post the following documents in a prominent and accessible place where they may be easily viewed by all employees of the prime Contractor and by all employees of subcontractors engaged by the prime Contractor: Equal Employment Opportunity (EEO) Poster "Equal Employment Opportunity is the Law" in accordance with the Office of Federal Contract Compliance Programs Executive Order 11246, as amended; Davis Bacon Wage Poster (WH 1321) - DOL "Notice to All Employees" Poster; and Applicable Davis-Bacon Wage Rate Determination. These notices must remain posted until final acceptance of the work by the Owner.

105-4 Engineer/RPR field office. An Engineer's Field Office is not required.

METHOD OF MEASUREMENT

105-5.1 Basis of measurement and payment. Based upon the contract lump sum price for "Mobilization" partial payments will be allowed as follows:

- a. Upon acceptance of all submittals and establishment of the Contractor's Yard, 25%.
- b. When 25% or more of the original contract is earned, an additional 25%.
- c. When 50% or more of the original contract is earned, an additional 40%.

d. After Final Inspection, Staging Area clean-up and delivery of all Project Closeout materials as required by Section 90, paragraph 90-11, *Contractor Final Project Documentation*, the final 10%.

The Contract lump sum price paid for Mobilization shall include full compensation for furnishing all labor, submittals, materials, tools, equipment, field office, and incidentals, and for doing all the work involved in mobilization as specified herein.

Payments made for Mobilization will be excluded from consideration in determining compensation under changed quantities.

Mobilization shall not exceed 10% of the total contract price.

105-5.2 Basis of measurement and payment. Based upon the contract allowance for "Unforeseen Conditions" partial payments will be allowed as follows:

- a. Contractor shall not begin any work on this item without formalized scope and fee negotiations that are accepted by the Airport and the RPR. Any work under this item shall require an approved Contract Change Order.
- b. Work performed that conforms to existing Items shall be measured under those items separately.
- c. Payment shall not be made until all negotiated scope and fee work is completed and accepted by the RPR.

BASIS OF PAYMENT

105-6 Payment will be made under:

Item C-105-6.1 Mobilization – per lump sum

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Office of Federal Contract Compliance Programs (OFCCP)

Executive Order 11246, as amended

EEOC-P/E-1 – Equal Employment Opportunity is the Law Poster

United States Department of Labor, Wage and Hour Division (WHD)

WH 1321 – Employee Rights under the Davis-Bacon Act Poster

END OF ITEM C-105

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DIVISION IV

Special Provisions for Airport Construction

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NOT FOR BID

Item A-105 Airfield Safety and Traffic Control

105-1.1 Overview. This Section provides for construction safety in an Airport environment; limitations on construction operations; minimum requirements for construction management and scheduling; and site-specific information pertaining to potential impacts on construction activities. Unless otherwise noted, all costs associated with related work shall be included in the Contract pay item for Airfield Safety and Traffic Control.

105-1.2 Construction Safety and Phasing Plan (CSPP). The Contractor shall comply with the Project-specific CSPP included as *Appendix 1* to these Specifications. Included as part of the requirements of the CSPP is the Safety Plan Compliance Document (SPCD), which Contractor must complete and submit to Engineer for approval. (Notice to Proceed for Construction will not be issued until SCPC is approved.)

105-1.3 Engineer's / Construction Site Office. Not required.

105-1.4 Lines and Grades. The Contractor shall provide construction and layout staking for the Engineer to review and confirm prior to work being started. The Engineer will be given 48 hours' notice of pavement marking layout so it may be checked.

Contractor shall notify the Engineer immediately regarding any survey monuments, benchmarks, control points, stakes or marks, etc., that are in jeopardy of being disturbed or destroyed by your construction, so that they may be relocated and perpetuated.

105-1.5 Record Drawings. The Contractor shall maintain Record Drawings of all work continuously as the job progresses. A separate set of prints, for this purpose only, shall be kept at the job site at all times. It shall be required that these Drawings be up to date and be reviewed by the field inspector at the time each progress bill is submitted. All deviations from the Drawings, exact locations and sizes of all utilities, mechanical and electrical lines, equipment details, and all stub outs and connections for future expansion, shall be incorporated. Fees for documentation of Record Drawings shall be included in other items of work and no separate payment will be made.

105-1.6 Material Testing and Retesting. All Quality Control shall be performed by the Contractor; all acceptance testing will be performed by the Engineer as necessary. The Quality Control Testing shall include but is not limited to:

- Concrete strength mix design and other conformance testing required for structural Portland cement concrete.

105-1.7 Schedule of Values. See Instructions to Bidders. Contractor shall provide a Schedule of Values for all Lump Sum items prior to proceeding with construction.

105-1.8 Time Limitations. Reserved.

105-1.9 Liquidated Damages. If time limitations for any element / phase of work are not met, liquidated damages may be assessed as follows:

- a. Mobilization.** If the time limitation for Mobilization is exceeded, \$500 per calendar day.
- b. Overall Project.** If the time limitation for the overall project is exceeded, \$5,000 per calendar day.
- c. Work Areas.** If time limitations as designated for each work area are not met, \$1,500 per calendar day.

105-1.10 Barricades. Contractor is responsible for providing, placing, and maintaining barricades, including replacing batteries as needed. Contractor is responsible for additional barricades needed during project.

Additionally, Contractor shall provide plastic delineators as required to barricade hazardous areas. Unless otherwise approved by the Engineer, delineators shall be 42-inch-high molded plastic. Delineators shall be four inches in diameter, florescent orange, supplied with a weighted base and reflective stripes. Lighting for barricades will be provided at night by Contractor as approved by the County. All costs associated with this item shall be included in Airfield Safety and Traffic Control. All active haul routes shall be marked with plastic delineators spaced 50 feet apart on both sides of the route as approved by the County.

105-1.11 Runway Closure Markers (Crosses).

The County shall inspect the runway and any excavated areas within the RSA 30 minutes prior to removal of crosses. The Contractor shall ensure that the following conditions are satisfied 30 minutes prior to removing crosses and opening the runway for aircraft operations:

- a. All runway and taxiway surfaces shall be swept clean and be free of debris.
- b. All runway restricted areas shall be free of obstructions, abrupt irregularities in grade, and drop edges greater than 3 inches. The Contractor shall provide trench plates, temporary backfill, and other measures as necessary.
- c. Barricades shall be installed around any construction area(s), as directed, to prevent access by aircraft.

105-1.12 Radio Communication with Air Traffic Control Tower (ATCT).

Two-way radio communication with the ATCT shall be maintained at all times when the tower is open and the Contractor is working or traveling in a controlled area. The Contractor shall supply radios and personnel capable of communication with the tower during the hours of tower operation. The Contractor will also be required to monitor communications during non-towered hours. When a runway or taxiway is open to air traffic, Contractor must provide a radio-equipped escort before any of his personnel or equipment proceeds onto or across the taxiways or runways. If the Contractor is working in more than one location, each Work Area shall have a radio as directed by the County. A radio-equipped flagman shall be used to control vehicular traffic crossing active areas during hauling operations. Radio operations personnel shall be trained by Airport personnel, prior to using radios.

The Contractor shall provide at least two (2) fully functional hand-held aviation radios with battery chargers for use during construction. Radios shall be ICOM-A6 transceivers, each supplied with NICAD battery pack, spare NICAD battery pack, whip antenna, desktop charger, and a 12V adaptor/charger.

105-1.13 Access and Security.

a. **Contractor Access.** Contractor access to the various work areas shall be via the closest access routes indicated on the Construction Safety and Phasing Plan. Haul routes on Airport property shall be approved by the Airport. All access routes and haul roads shall be kept clean and free of debris. Dust control shall be maintained. Where haul routes cross active runways, taxiways, or aprons, radio-equipped flaggers shall be provided by the Contractor as required.

b. **Security Control.**

- 1) The Contractor shall be responsible for maintaining Airport security at all gates designated for his use. Gates must be locked or manned by the Contractor's personnel to ensure no unauthorized access to the air operations area.
- 2) All access gates shall be kept clear of equipment and material.

105-1.14 Work Hour Limitations. The Airport's normal work hours are listed in the CSPP. All work performed outside of this schedule, unless already stated in this contract, shall be coordinated and approved in advance by the County. At the pre-construction meeting the Contractor shall provide a

schedule of proposed work hours and days for the duration of the project to allow adequate time for the Owner and Engineering team to schedule inspection and observation efforts.

105-1.15 Dust Control. Contractor is responsible for providing dust control measures to limit dust nuisance during the Project. Prevent and alleviate dust by applying water, and covering active and inactive stockpiles. Apply water in the quantity, at the location, and for the purpose described or ordered. Apply water with the appropriate equipment to ensure the uniform application of water.

105-1.16 Construction Water. The source of construction water for the Project shall be coordinated by the Contractor. The Contractor shall pay water and meter fees and make all necessary arrangements with appropriate local utility or County to secure construction water for the duration of the Contract, if necessary. No direct payment will be made for this work. The Contractor shall include all costs associated with construction water in the price of the work.

105-1.17 Utility Investigation and Safety Requirements Certain underground facilities exist that may require special precautions to protect the health, safety and welfare of workmen and of the public. Facilities requiring special precautions include, but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipelines greater than 6 inches in diameter or pipelines operating at pressures greater than 60 psi (gage); underground electric supply system conductors or cables, with potential to ground of more than 300 volts, either directly buried or in duct or conduit which do not have concentric grounded conductors or other effectively grounded metal shields or sheaths.

At least two working days prior to beginning excavation notify 811.

You will be required to work around public utility facilities and other improvements that are to remain in place within the construction area, or that are to be relocated and relocation operations have not been completed. You will be liable to owners of such facilities and improvements for any damage or interference with services resulting from his operations.

You must determine the exact location of underground facilities and improvements within the construction area before using equipment that may damage such facilities or interfere with the services.

METHOD OF MEASUREMENT and BASIS of PAYMENT

Airfield Safety and Traffic Control, and all incidentals required to complete work described in this section unless otherwise indicated will be measured and paid for as a lump sum.

Payment will be made under:

Item A-105-3.1 Airfield Safety and Traffic Control – per Lump Sum

END OF ITEM A-105

Item A-130 Wage Rate and DBE Requirements

130-1.1 Overview. This Section provides the minimum requirements for determining and providing certified payroll wage rates and the Disadvantaged Business Enterprise (DBE) requirements on the project.

130-1.2 Wage Rate Requirements

130-1.2a Minimum Wage. Labor on this project shall be paid no less than the greater of the minimum wage rates established by the U.S. Secretary of Labor or by the State of California's Director of the Department of Industrial Relations (DIR). The Contractor shall comply with Division II Requirements, and all applicable provisions of the California Labor Code.

130-1.2b Certified Payroll. The Contractor shall email one (1) copy of all certified payroll, including that of all subcontractors, to Mead & Hunt the person identified at the pre-construction meeting. Failure to submit complete weekly certified payroll, including signed Fringe Benefits Statements, all actual payroll, signed Statements of Compliance, including any Statements of Non-Performance (for any week in which work was not performed) throughout the length of the project or until such contractor or subcontractor provides an indicated 'final' payroll, as well as all eCPR submittals (receipts of submittal of said payroll to the DIR), in a clear, logical, and timely manner, may delay progress payments. All certified payroll must comply with the requirements outlined in Division II, and all applicable provisions of the California Labor Code.

130-1.3 Disadvantaged Business Enterprise (DBE) Requirements

The recipient or its contractors agrees to ensure that disadvantaged business enterprises as defined in 49 CFR Part 26 have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or part with Federal funds provided under this agreement. In this regard, contractors shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 to ensure that disadvantaged business enterprises have the maximum opportunity to compete for and perform contracts. Recipients and their contractors shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of DOT-assisted contracts.

The bidder/proposer shall make good faith efforts, as defined in Appendix A of 49 CFR Part 26, Regulations of the Office of the Secretary of Transportation, to subcontract with small business concerns owned and controlled by socially and economically disadvantaged individuals (DBE). See Division II for specific, federal Contract requirements.

If the bidder for this solicitation qualifies as a DBE, the contract goal shall be deemed to have been met. Individuals who are rebuttably presumed to be socially and economically disadvantaged include women, Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, and Asian-Indian Americans. The apparent successful competitor will be required to submit information concerning the DBE's that will participate in the contract. The information will include: (1) the name and address of each DBE; (2) a description of the work to be performed by each named firm; and (3) the dollar value of the work of the contract. Regardless of whether or not the bidder achieves the contract goal stated herein, it will be required to provide documentation demonstrating that it made good faith efforts in attempting to do so. A bid that fails to meet these requirements will be considered nonresponsive.

All bidders, potential contractors, or subcontractors for this DOT-assisted contract are hereby notified that failure to carry out the DOT policy and the DBE obligation, as set forth above, shall constitute a breach of contract which may result in termination of the contract or such other remedy as deemed appropriate by the recipient and the FAA. See Division II for additional DBE information.

END OF ITEM A-130

DIVISION V

FAA Technical Specifications

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Technical Specifications Table of Contents

Item L-108	Underground Power Cable for Airports
Item L-109	Airport Transformer Vault and Vault Equipment
Item L-110	Airport Underground Electrical Duct Banks and Conduits
Item L-115	Electrical Manholes and Junction Structures
Item L-125	Installation of Airport Lighting Systems
Item P-152	Excavation, Subgrade, and Embankment
Item P-153	Controlled Low-Strength Material (CLSM)
Item P-610	Concrete for Miscellaneous Structures
Item T-901	Seeding

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NOT FOR BID

Item L-108 Underground Power Cable for Airports

DESCRIPTION

108-1.1 This item shall consist of furnishing and installing power cables that are direct buried and furnishing and/or installing power cables within conduit or duct banks per these specifications at the locations shown on the plans. It includes excavation and backfill of trench for direct-buried cables only. Also included are the installation of counterpoise wires, ground wires, ground rods and connections, cable splicing, cable marking, cable testing, and all incidentals necessary to place the cable in operating condition as a completed unit to the satisfaction of the RPR. This item shall not include the installation of duct banks or conduit, trenching and backfilling for duct banks or conduit, or furnishing or installation of cable for FAA owned/operated facilities.

EQUIPMENT AND MATERIALS

108-2.1 General.

a. Airport lighting equipment and materials covered by advisory circulars (AC) shall be approved under the Airport Lighting Equipment Certification Program per AC 150/5345-53, current version.

b. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification, when requested by the RPR.

c. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per these specifications. Materials supplied and/or installed that do not comply with these specifications shall be removed (when directed by the RPR) and replaced with materials that comply with these specifications at the Contractor's cost.

d. All materials and equipment used to construct this item shall be submitted to the RPR for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify products or models applicable to this project. Indicate all optional equipment and delete any non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment to which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in the project that may accrue directly or indirectly from late submissions or resubmissions of submittals.

e. The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. The Contractor's submittals shall be electronically submitted in pdf format. The RPR reserves the right to reject any and all equipment, materials, or procedures that do not meet the system design and the standards and codes, specified in this document.

f. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for at least twelve (12) months from the date of final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner. The Contractor shall maintain a minimum insulation resistance in accordance with paragraph 108-3.10e with isolation transformers connected in new circuits and new segments of existing circuits through the end of the contract warranty period when tested in accordance with AC 150/5340-26, *Maintenance Airport Visual Aid Facilities*, paragraph 5.1.3.1, Insulation Resistance Test.

108-2.2 Cable. Underground cable for airfield lighting facilities (runway and taxiway lights and signs) shall conform to the requirements of AC 150/5345-7, Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits latest edition. Conductors for use on 6.6 ampere primary airfield lighting series circuits shall be single conductor, seven strand, #8 American wire gauge (AWG), L-824 Type C, 5,000 volts,

non-shielded, with cross-linked polyethylene insulation. L-824 conductors for use on the L-830 secondary of airfield lighting series circuits shall be sized in accordance with the manufacturer's recommendations. All other conductors shall comply with FAA and National Electric Code (NEC) requirements. Conductor sizes noted above shall not apply to leads furnished by manufacturers on airfield lighting transformers and fixtures.

Wire for electrical circuits up to 600 volts shall comply with Specification L-824 and/or Commercial Item Description A-A-59544A and shall be type THWN-2, 75°C for installation in conduit and RHW-2, 75°C for direct burial installations. Conductors for parallel (voltage) circuits shall be type and size and installed in accordance with NFPA-70, National Electrical Code.

Unless noted otherwise, all 600-volt and less non-airfield lighting conductor sizes are based on a 75°C, THWN-2, 600-volt insulation, copper conductors, not more than three single insulated conductors, in raceway, in free air. The conduit/duct sizes are based on the use of THWN-2, 600-volt insulated conductors. The Contractor shall make the necessary increase in conduit/duct sizes for other types of wire insulation. In no case shall the conduit/duct size be reduced. The minimum power circuit wire size shall be #12 AWG.

Conductor sizes may have been adjusted due to voltage drop or other engineering considerations. Equipment provided by the Contractor shall be capable of accepting the quantity and sizes of conductors shown in the Contract Documents. All conductors, pigtails, cable step-down adapters, cable step-up adapters, terminal blocks and splicing materials necessary to complete the cable termination/splice shall be considered incidental to the respective pay items provided.

Cable type, size, number of conductors, strand and service voltage shall be as specified in the Contract Document.

108-2.3 Bare copper wire (counterpoise, bare copper wire ground and ground rods). Wire for counterpoise or ground installations for airfield lighting systems shall be No. 6 AWG bare solid copper wire for counterpoise and/or No. 6 AWG insulated stranded for grounding bond wire per ASTM B3 and ASTM B8, and shall be bare copper wire. For voltage powered circuits, the equipment grounding conductor shall comply with NEC Article 250.

Ground rods shall be copper or copper-clad steel. The ground rods shall be of the length and diameter specified on the plans, but in no case be less than 10 feet long and 3/4 inch in diameter.

108-2.4 Cable connections. In-line connections or splices of underground primary cables shall be of the type called for on the plans, and shall be one of the types listed below. No separate payment will be made for cable connections.

a. The cast splice. Not used.

b. The field-attached plug-in splice. Field attached plug-in splices shall be installed as shown on the plans. The Contractor shall determine the outside diameter of the cable to be spliced and furnish appropriately sized connector kits and/or adapters. Tape or heat shrink tubing with integral sealant shall be in accordance with the manufacturer's requirements. Primary Connector Kits manufactured by Amerace, "Super Kit", Integro "Complete Kit", or approved equal is acceptable.

c. The factory-molded plug-in splice. Specification for L-823 Connectors, Factory-Molded to Individual Conductors, is acceptable.

d. The taped or heat-shrink splice. Not used.

In all the above cases, connections of cable conductors shall be made using crimp connectors using a crimping tool designed to make a complete crimp before the tool can be removed. All L-823/L-824 splices and terminations shall be made per the manufacturer's recommendations and listings.

All connections of counterpoise, grounding conductors and ground rods shall be made by the exothermic process or approved equivalent, except that a light base ground clamp connector shall be used for attachment to the light base. All exothermic connections shall be made per the manufacturer's recommendations and listings.

108-2.5 Splicer qualifications. Every airfield lighting cable splicer shall be qualified in making airport cable splices and terminations on cables rated at or above 5,000 volts AC. The Contractor shall submit to the RPR proof of the qualifications of each proposed cable splicer for the airport cable type and voltage level to be worked on. Cable splicing/terminating personnel shall have a minimum of three (3) years continuous experience in terminating/splicing medium voltage cable.

108-2.6 Concrete. Concrete shall be proportioned, placed, and cured per Item P-610, Concrete for Miscellaneous Structures.

108-2.7 Flowable backfill. Flowable material used to backfill trenches for power cable trenches shall conform to the requirements of Item P-153, Controlled Low Strength Material.

108-2.8 Cable identification tags. Cable identification tags shall be made from a non-corrosive material with the circuit identification stamped or etched onto the tag. The tags shall be of the type as detailed on the plans.

108-2.9 Tape. Electrical tapes shall be Scotch™ Electrical Tapes –Scotch™ 88 (1-1/2 inch wide) and Scotch™ 130C® linerless rubber splicing tape (2-inch wide), as manufactured by the Minnesota Mining and Manufacturing Company (3M™), or an approved equivalent.

108-2.10 Electrical coating. Electrical coating shall be Scotchkote™ as manufactured by 3M™, or an approved equivalent.

108-2.11 Existing circuits. Whenever the scope of work requires connection to an existing circuit, the existing circuit's insulation resistance shall be tested, in the presence of the RPR. The test shall be performed per this item and prior to any activity that will affect the respective circuit. The Contractor shall record the results on forms acceptable to the RPR. When the work affecting the circuit is complete, the circuit's insulation resistance shall be checked again, in the presence of the RPR. The Contractor shall record the results on forms acceptable to the RPR. The second reading shall be equal to or greater than the first reading or the Contractor shall make the necessary repairs to the existing circuit to bring the second reading above the first reading. All repair costs including a complete replacement of the L-823 connectors, L-830 transformers and L-824 cable, if necessary, shall be borne by the Contractor. All test results shall be submitted in the Operation and Maintenance (O&M) Manual.

108-2.12 Detectable warning tape. Plastic, detectable, American Public Works Association (APWA) Red (electrical power lines, cables, conduit and lighting cable) with continuous legend tape shall be polyethylene film with a metalized foil core and shall be 3-6 inches wide. Detectable tape is incidental to the respective bid item. Detectable warning tape for communication cables shall be orange. Detectable warning tape color code shall comply with the APWA Uniform Color Code.

CONSTRUCTION METHODS

108-3.1 General. The Contractor shall install the specified cable at the approximate locations indicated on the plans. Unless otherwise shown on the plans, all cable required to cross under pavements expected to carry aircraft loads shall be installed in concrete encased duct banks. Cable shall be run without splices, from fixture to fixture.

Cable connections between lights will be permitted only at the light locations for connecting the underground cable to the primary leads of the individual isolation transformers. The Contractor shall be responsible for providing cable in continuous lengths for home runs or other long cable runs without connections unless otherwise authorized in writing by the RPR or shown on the plans.

In addition to connectors being installed at individual isolation transformers, L-823 cable connectors for maintenance and test points shall be installed at locations shown on the plans. Cable circuit identification markers shall be installed on both sides of the L-823 connectors installed and on both sides of slack loops where a future connector would be installed.

Provide not less than 3 feet of cable slack on each side of all connections, isolation transformers, light units, and at points where cable is connected to field equipment. Where provisions must be made for testing or for future above grade connections, provide enough slack to allow the cable to be extended at least one foot vertically above the top of the access structure. This requirement also applies where primary cable

passes through empty light bases, junction boxes, and access structures to allow for future connections, or as designated by the RPR.

Primary airfield lighting cables installed shall have cable circuit identification markers attached on both sides of each L-823 connector and on each airport lighting cable entering or leaving cable access points, such as manholes, hand holes, pull boxes, junction boxes, etc. Markers shall be of sufficient length for imprinting the cable circuit identification legend on one line, using letters not less than 1/4 inch in size. The cable circuit identification shall match the circuits noted on the construction plans.

108-3.2 Installation in duct banks or conduits. This item includes the installation of the cable in duct banks or conduit per the following paragraphs. The maximum number and voltage ratings of cables installed in each single duct or conduit, and the current-carrying capacity of each cable shall be per the latest version of the National Electric Code, or the code of the local agency or authority having jurisdiction.

The Contractor shall make no connections or splices of any kind in cables installed in conduits or duct banks.

Unless otherwise designated in the plans, where ducts are in tiers, use the lowest ducts to receive the cable first, with spare ducts left in the upper levels. Check duct routes prior to construction to obtain assurance that the shortest routes are selected, and that any potential interference is avoided.

Duct banks or conduits shall be installed as a separate item per Item L-110, Airport Underground Electrical Duct Banks and Conduit. The Contractor shall run a mandrel through duct banks or conduit prior to installation of cable to ensure that the duct bank or conduit is open, continuous, and clear of debris. The mandrel size shall be compatible with the conduit size. The Contractor shall swab out all conduits/ducts and clean light bases, manholes, etc., interiors immediately prior to pulling cable. Once cleaned and swabbed, the light bases and all accessible points of entry to the duct/conduit system shall be kept closed except when installing cables. Cleaning of ducts, light bases, manholes, etc., is incidental to the pay item of the item being cleaned. All raceway systems left open, after initial cleaning, for any reason shall be re-cleaned at the Contractor's expense. The Contractor shall verify existing ducts proposed for use in this project as clear and open. The Contractor shall notify the RPR of any blockage in the existing ducts.

The cable shall be installed in a manner that prevents harmful stretching of the conductor, damage to the insulation, or damage to the outer protective covering. The ends of all cables shall be sealed with moisture-seal tape providing moisture-tight mechanical protection with minimum bulk, or alternately, heat shrinkable tubing before pulling into the conduit and it shall be left sealed until connections are made. Where more than one cable is to be installed in a conduit, all cable shall be pulled in the conduit at the same time. The pulling of a cable through duct banks or conduits may be accomplished by hand winch or power winch with the use of cable grips or pulling eyes. Maximum pulling tensions shall not exceed the cable manufacturer's recommendations. A non-hardening cable-pulling lubricant recommended for the type of cable being installed shall be used where required.

The Contractor shall submit the recommended pulling tension values to the RPR prior to any cable installation. If required by the RPR, pulling tension values for cable pulls shall be monitored by a dynamometer in the presence of the RPR. Cable pull tensions shall be recorded by the Contractor and reviewed by the RPR. Cables exceeding the maximum allowable pulling tension values shall be removed and replaced by the Contractor at the Contractor's expense.

The manufacturer's minimum bend radius or NEC requirements (whichever is more restrictive) shall apply. Cable installation, handling and storage shall be per manufacturer's recommendations. During cold weather, particular attention shall be paid to the manufacturer's minimum installation temperature. Cable shall not be installed when the temperature is at or below the manufacturer's minimum installation temperature. At the Contractor's option, the Contractor may submit a plan, for review by the RPR, for heated storage of the cable and maintenance of an acceptable cable temperature during installation when temperatures are below the manufacturer's minimum cable installation temperature.

Cable shall not be dragged across base can or manhole edges, pavement or earth. When cable must be coiled, lay cable out on a canvas tarp or use other appropriate means to prevent abrasion to the cable jacket.

108-3.3 Installation of direct-buried cable in trenches. Not Used.

108-3.4 Cable markers for direct-buried cable. Not Used.

108-3.5 Splicing. Connections of the type shown on the plans shall be made by experienced personnel regularly engaged in this type of work and shall be made as follows:

a. Cast splices. Not used.

b. Field-attached plug-in splices. These shall be assembled per the manufacturer's instructions. These splices shall be made by plugging directly into mating connectors. The joint where the connectors come together shall be finished by one of the following methods: (1) wrapped with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one-half lapped, extending at least 1-1/2 inches on each side of the joint (2) Covered with heat shrinkable tubing with integral sealant extending at least 1-1/2 inches on each side of the joint or (3) On connector kits equipped with water seal flap; roll-over water seal flap to sealing position on mating connector.

c. Factory-molded plug-in splices. These shall be made by plugging directly into mating connectors. The joint where the connectors come together shall be finished by one of the following methods: (1) Wrapped with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one-half lapped, extending at least 1-1/2 inches on each side of the joint. (2) Covered with heat shrinkable tubing with integral sealant extending at least 1-1/2 inches on each side of the joint. or (3) On connector kits so equipped with water seal flap; roll-over water seal flap to sealing position on mating connector.

d. Taped or heat-shrink splices. Not used.

e. Assembly. Surfaces of equipment or conductors being terminated or connected shall be prepared in accordance with industry standard practice and manufacturer's recommendations. All surfaces to be connected shall be thoroughly cleaned to remove all dirt, grease, oxides, nonconductive films, or other foreign material. Paints and other nonconductive coatings shall be removed to expose base metal. Clean all surfaces at least 1/4 inch beyond all sides of the larger bonded area on all mating surfaces. Use a joint compound suitable for the materials used in the connection. Repair painted/coated surface to original condition after completing the connection.

108-3.6 Bare counterpoise wire installation for lightning protection and grounding. If shown on the plans or included in the job specifications, bare solid #6 AWG copper counterpoise wire shall be installed for lightning protection of the underground cables. The RPR shall select one of two methods of lightning protection for the airfield lighting circuit based upon sound engineering practice and lightning strike density.

a. Equipotential. – The counterpoise size is as shown on the plans. The equipotential method is applicable to all airfield lighting systems; i.e. runway, taxiway, apron – touchdown zone, centerline, edge, threshold and approach lighting systems. The equipotential method is also successfully applied to provide lightning protection for power, signal and communication systems. The light bases, counterpoise, etc. – all components - are bonded together and bonded to the vault power system ground loop/electrode.

Counterpoise wire shall be installed in the same trench for the entire length of buried cable, conduits and duct banks that are installed to contain airfield cables. The counterpoise is centered over the cable/conduit/duct to be protected.

The counterpoise conductor shall be installed no less than 8 inches minimum or 12 inches maximum above the raceway or cable to be protected, except as permitted below:

(1) The minimum counterpoise conductor height above the raceway or cable to be protected shall be permitted to be adjusted subject to coordination with the airfield lighting and pavement designs.

(2) The counterpoise conductor height above the protected raceway(s) or cable(s) shall be calculated to ensure that the raceway or cable is within a 45-degree area of protection, (45 degrees on each side of vertical creating a 90-degree angle).

The counterpoise conductor shall be bonded to each metallic light base, mounting stake, and metallic airfield lighting component.

All metallic airfield lighting components in the field circuit on the output side of the constant current regulator (CCR) or other power source shall be bonded to the airfield lighting counterpoise system.

All components rise and fall at the same potential; with no potential difference, no damaging arcing and no damaging current flow.

See AC 150/5340-30, Design and Installation Details for Airport Visual Aids and NFPA 780, Standard for the Installation of Lightning Protection Systems, Chapter 11, for a detailed description of the Equipotential Method of lightning protection.

Reference FAA STD-019E, Lightning and Surge Protection, Grounding Bonding and Shielding Requirements for Facilities and Electronic Equipment, Part 4.1.1.7.

b. Isolation – Not Used

c. Common Installation requirements. When a metallic light base is used, the grounding electrode shall be bonded to the metallic light base or mounting stake with a No. 6 AWG bare, annealed or soft drawn, solid copper conductor.

When a nonmetallic light base is used, the grounding electrode shall be bonded to the metallic light fixture or metallic base plate with a No. 6 AWG bare, annealed or soft drawn, solid copper conductor.

Grounding electrodes may be rods, ground dissipation plates, radials, or other electrodes listed in the NFPA 70 (NEC) or NFPA 780.

Where raceway is installed by the directional bore, jack and bore, or other drilling method, the counterpoise conductor shall be permitted to be installed concurrently with the directional bore, jack and bore, or other drilling method raceway, external to the raceway or sleeve.

The counterpoise wire shall also be exothermically welded to ground rods installed as shown on the plans but not more than 500 feet apart around the entire circuit. The counterpoise system shall be continuous and terminate at the transformer vault or at the power source. It shall be securely attached to the vault or equipment external ground ring or other made electrode-grounding system. The connections shall be made as shown on the plans and in the specifications.

Where an existing airfield lighting system is being extended or modified, the new counterpoise conductors shall be interconnected to existing counterpoise conductors at each intersection of the new and existing airfield lighting counterpoise systems.

d. Parallel Voltage Systems. Provide grounding and bonding in accordance with NFPA 70, National Electrical Code.

108-3.7 Counterpoise installation above multiple conduits and duct banks. Counterpoise wires shall be installed above multiple conduits/duct banks for airfield lighting cables, with the intent being to provide a complete area of protection over the airfield lighting cables. When multiple conduits and/or duct banks for airfield cable are installed in the same trench, the number and location of counterpoise wires above the conduits shall be adequate to provide a complete area of protection measured 45 degrees each side of vertical.

Where duct banks pass under pavement to be constructed in the project, the counterpoise shall be placed above the duct bank. Reference details on the construction plans.

108-3.8 Counterpoise installation at existing duct banks. When airfield lighting cables are indicated on the plans to be routed through existing duct banks, the new counterpoise wiring shall be terminated at ground rods at each end of the existing duct bank where the cables being protected enter and exit the duct bank. The new counterpoise conductor shall be bonded to the existing counterpoise system.

108-3.9 Exothermic bonding. Bonding of counterpoise wire shall be by the exothermic welding process or equivalent method accepted by the RPR. Only personnel experienced in and regularly engaged in this type of work shall make these connections.

Contractor shall demonstrate to the satisfaction of the RPR, the welding kits, materials, and procedures to be used for welded connections prior to any installations in the field. The installations shall comply with the manufacturer's recommendations and the following:

a. All slag shall be removed from welds.

b. Using an exothermic weld to bond the counterpoise to a lug on a galvanized light base is not recommended unless the base has been specially modified. Consult the manufacturer's installation directions for proper methods of bonding copper wire to the light base. See AC 150/5340-30 for galvanized light base exception.

c. If called for in the plans, all buried copper and weld material at weld connections shall be thoroughly coated with 6 mm of 3M™ Scotchkote™, or approved equivalent, or coated with coal tar Bitumastic® material to prevent surface exposure to corrosive soil or moisture.

108-3.10 Testing. The Contractor shall furnish all necessary equipment and appliances for testing the airport electrical systems and underground cable circuits before and after installation. The Contractor shall perform all tests in the presence of the RPR. The Contractor shall demonstrate the electrical characteristics to the satisfaction of the RPR. All costs for testing are incidental to the respective item being tested. For phased projects, the tests must be completed by phase. The Contractor must maintain the test results throughout the entire project as well as during the warranty period that meet the following:

a. Earth resistance testing methods shall be submitted to the RPR for approval. Earth resistance testing results shall be recorded on an approved form and testing shall be performed in the presence of the RPR. All such testing shall be at the sole expense of the Contractor.

b. Should the counterpoise or ground grid conductors be damaged or suspected of being damaged by construction activities the Contractor shall test the conductors for continuity with a low resistance ohmmeter. The conductors shall be isolated such that no parallel path exists and tested for continuity. The RPR shall approve of the test method selected. All such testing shall be at the sole expense of the Contractor.

After installation, the Contractor shall test and demonstrate to the satisfaction of the RPR the following:

c. That all affected lighting power and control circuits (existing and new) are continuous and free from short circuits.

d. That all affected circuits (existing and new) are free from unspecified grounds.

e. That the insulation resistance to ground of all new non-grounded high voltage series circuits or cable segments is not less than 500 megohms. Verify continuity of all series airfield lighting circuits prior to energization.

f. That the insulation resistance to ground of all new non-grounded conductors of new multiple circuits or circuit segments is not less than 100 megohms.

g. That all affected circuits (existing and new) are properly connected per applicable wiring diagrams.

h. That all affected circuits (existing and new) are operable. Tests shall be conducted that include operating each control not less than 10 times and the continuous operation of each lighting and power circuit for not less than 1/2 hour.

i. That the impedance to ground of each ground rod does not exceed 25 ohms prior to establishing connections to other ground electrodes. The fall-of-potential ground impedance test shall be used, as described by American National Standards Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) Standard 81, to verify this requirement. As an alternate, clamp-on style ground impedance test meters may be used to satisfy the impedance testing requirement. Test equipment and its calibration sheets shall be submitted for review and approval by the RPR prior to performing the testing.

Two copies of tabulated results of all cable tests performed shall be supplied by the Contractor to the RPR. Where connecting new cable to existing cable, insulation resistance tests shall be performed on the new cable prior to connection to the existing circuit.

There are no approved "repair" procedures for items that have failed testing other than complete replacement.

METHOD OF MEASUREMENT

108-4.1 The cost of all excavation, backfill, dewatering and restoration regardless of the type of material encountered shall be included in the unit price bid for the work.

108-4.2 Cable or counterpoise wire installed in trench, duct bank or conduit shall be measured by the number of linear feet installed and grounding connectors, and trench marking tape ready for operation, and accepted as satisfactory. Separate measurement shall be made for each cable or counterpoise wire installed in trench, duct bank or conduit. Cable and counterpoise slack is considered incidental to this item and is included in the Contractor's unit price. No separate measurement shall be made for cable or counterpoise slack.

108-4.3 No separate measurement will be made for ground rods.

108-4.4 No separate measurement will be made for equipment grounds. All ground rods and ground lines are incidental to the item of work being performed.

BASIS OF PAYMENT

108-5.1 Payment will be made at the contract unit price for trenching, cable and bare counterpoise wire installed in trench (direct-buried), or cable and equipment ground installed in duct bank or conduit, in place by the Contractor and accepted by the RPR. This price shall be full compensation for furnishing all materials and for all preparation and installation of these materials, and for all labor, equipment, tools, and incidentals, including ground rods and ground connectors and trench marking tape, necessary to complete this item.

108-5.2 Payment will be made at the Contract Lump Sum price for Locate and Protect Existing Equipment and will be full compensation for furnishing all materials for locating, protecting, and testing existing circuits and for all labor, equipment, tools and incidentals necessary to complete this Pay Item as required.

108-5.3 Locate and Protect Existing Equipment – per lump sum.

Payment will be made under:

Item L-108-5.1	No. 8 AWG, 5kV, L-824, Type C Cable, Installed in Conduit – per linear foot
Item L-108-5.2	No. 6 AWG, Solid, Bare Copper Counterpoise Wire, Installed Above the Duct Bank or Conduit Including Ground Rods/ Connections/Terminations – per linear foot

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Advisory Circulars (AC)

AC 150/5340-26	Maintenance of Airport Visual Aid Facilities
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-26	Specification for L-823 Plug and Receptacle, Cable Connectors
AC 150/5345-53	Airport Lighting Equipment Certification Program

Commercial Item Description

A-A-59544A	Cable and Wire, Electrical (Power, Fixed Installation)
A-A-55809	Insulation Tape, Electrical, Pressure-Sensitive Adhesive, Plastic

ASTM International (ASTM)

ASTM B3	Standard Specification for Soft or Annealed Copper Wire
ASTM B8	Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft
ASTM B33	Standard Specification for Tin-Coated Soft or Annealed Copper Wire for Electrical Purposes
ASTM D4388	Standard Specification for Nonmetallic Semi-Conducting and Electrically Insulating Rubber Tapes

Mil Spec

MIL-PRF-23586F	Performance Specification: Sealing Compound (with Accelerator), Silicone Rubber, Electrical
MIL-I-24391	Insulation Tape, Electrical, Plastic, Pressure Sensitive

National Fire Protection Association (NFPA)

NFPA-70	National Electrical Code (NEC)
NFPA-780	Standard for the Installation of Lightning Protection Systems

American National Standards Institute (ANSI)/Institute of Electrical and Electronics Engineers (IEEE)

ANSI/IEEE STD 81	IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System

Federal Aviation Administration Standard

FAA STD-019E	Lightning and Surge Protection, Grounding Bonding and Shielding Requirements for Facilities and Electronic Equipment

END OF ITEM L-108

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NOT FOR BID

Item L-109 Airport Transformer Vault and Vault Equipment

DESCRIPTION

109-1.1 This item shall consist of an existing vault to be reused and upgraded as indicated on the plans. Included as a separate part under this item or as a separate item where an existing vault is to be used shall be the furnishing of all vault equipment, wiring, electrical buses, cable, conduit, potheads, and grounding systems. This work shall also include the painting of equipment and conduit; the marking and labeling of equipment and the labeling or tagging of wires; the testing of the installation; and the furnishing of all incidentals necessary to place it in operating condition as a completed unit to the satisfaction of the RPR.

EQUIPMENT AND MATERIALS

109-2.1 General.

a. Airport lighting equipment and materials covered by advisory circulars (AC) shall be certified in AC 150/5345-53, Airport Lighting Equipment Certification Program (ALECP) and listed in the ALECP Addendum.

b. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the RPR.

c. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per these specifications. Materials supplied and/or installed that do not comply with these specifications shall be removed (when directed by the RPR) and replaced with materials that comply with these specifications at the Contractor's cost.

d. All materials and equipment used to construct this item shall be submitted to the RPR for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify products or models applicable to this project. Indicate all optional equipment and delete any non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment to which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in the project that may accrue directly or indirectly from late submissions or resubmissions of submittals.

e. The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. The Contractor's submittals shall be provided in electronic pdf format, tabbed by specification section. The RPR reserves the right to reject any and all equipment, materials or procedures that do not meet the system design and the standards and codes, specified in this document.

f. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

CONSTRUCTION OF VAULT AND PREFABRICATED METAL HOUSING

109-3.1 Electrical vault building. Not required.

109-3.2 Concrete. Concrete shall be proportioned, placed, and cured per Item P-610, Concrete for Miscellaneous Structures.

109-3.3 Precast concrete structures. Not Used

109-3.4 Reinforcing steel. Reinforcing steel bars shall be intermediate or structural grade deformed-type bars and shall be per ASTM A615.

109-3.5 Brick. Not used.

109-3.6 Rigid steel conduit. Rigid steel conduit and fittings shall be per Underwriters Laboratories Standards 6 and 514B.

109-3.7 Plastic Conduit and fittings. Plastic Conduit and fittings shall conform to the requirements of UL-651 and UL-654 schedule 40 polyvinyl chloride (PVC) suitable for use above or below ground.

109-3.8 Lighting. Not used.

109-3.9 Outlets. Not used.

109-3.10 Switches. Not used.

109-3.11 Paint. Not used.

109-3.12 Ground bus. Not used.

109-3.13 Square duct. Not used.

109-3.14 Ground rods. Not used.

109-3.15 Vault prefabricated metal housing. Not used.

109-3.16 FAA-approved equipment. Certain items of airport lighting equipment installed in vaults are covered by individual ACs listed below:

AC 150/5345-3	Specification for L-821, Panels for Remote Control of Airport Lighting
AC 150/5345-5	Circuit Selector Switch
AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-10	Specification for Constant Current Regulators and Regulator Monitors
AC 150/5345-13	Specification for L-841 Auxiliary Relay Cabinet Assembly for Pilot Control of Airport Lighting Circuits.
AC 150/5345-49	Specification for L-854, Radio Control Equipment
AC 150/5345-56	Specification for L-890 Airport Lighting Control and Monitoring System (ALCMS)

109-3.17 Other electrical equipment. Distribution transformers, oil switches, cutouts, relays, terminal blocks, transfer relays, circuit breakers, and all other regularly used commercial items of electrical equipment not covered by FAA equipment specifications and ACs shall conform to the applicable rulings and standards of the Institute of Electrical and Electronic Engineers (IEEE) or the National Electrical Manufacturers Association (NEMA). When specified, test reports from a testing laboratory indicating that the equipment meets the specifications shall be supplied. In all cases, equipment shall be new and a first-grade product. This equipment shall be supplied in the quantities required for the specific project and shall incorporate the electrical and mechanical characteristics specified in the proposal and plans. Equipment selected and installed by the Contractor shall maintain the interrupting current rating of the existing systems or specified rating whichever is greater.

109-3.18 Wire. Wire (in conduit) rated up to 5,000 volts shall be per AC 150/5345-7, Specification for L-824 Underground Electrical Cables for Airport Lighting Circuits. For ratings up to 600 volts, moisture and heat resistant thermoplastic wire conforming to Commercial Item Description A-A-59544A Type THWN-2 shall be used. The wires shall be of the type, size, number of conductors, and voltage shown in the plans or in the proposal.

a. Control circuits. Unless otherwise indicated on the plans, wire shall be not less than No. 12 American wire gauge (AWG) and shall be insulated for 600 volts. If telephone control cable is specified,

No. 19 AWG telephone cable per ANSI/Insulated Cable Engineers Association (ICEA) S-85-625 specifications shall be used.

b. Power circuits.

- (1) 600 volts maximum – Wire shall be No. 6 AWG or larger and insulated for at least 600 volts.
- (2) 3,000 volts maximum – Wire shall be No. 6 AWG or larger and insulated for at least 3,000 volts.
- (3) Over 3,000 volts-Wire shall be No. 6 AWG or larger and insulated for at least the circuit voltage.

109-3.19 Short circuit / coordination / device evaluation / arc flash analysis. The Contractor shall, based upon the equipment provided, include as a part of the submittal process the electrical system “Short Circuit / Coordination / Device evaluation / Arc Flash Analysis”. The analysis shall be performed by the equipment manufacturer and submitted in a written report. The analysis shall be signed and sealed by a registered professional Engineer from the state in which the project is located. The analysis shall comply with NFPA-70E and IEEE 1584.

The analysis will include: one-line diagrams, short circuit analysis, coordination analysis, equipment evaluation, arc flash analysis and arc flash labels containing at a minimum, equipment name, voltage/current rating, available incident energy and flash protection boundary.

The selected firms field service Engineer shall perform data gathering for analysis completion and device settings, perform device setting as recommended by the analysis and will furnish and install the arc flash labels. The components worst case incident energy will be considered the available arc flash energy at that specific point in the system. Submit three written copies and one electronic copy of the report.

CONSTRUCTION METHODS

CONSTRUCTION OF VAULT AND PREFABRICATED METAL HOUSING (NOT USED)

109-4.1 General. Not used.

109-4.2 Foundation and walls.

- a. **Reinforced concrete construction.** Not used.
- b. **Brick and concrete construction.** Not used.
- c. **Concrete masonry construction.** Not used.

109-4.3 Roof. Not used.

109-4.4 Floor. Not used.

109-4.5 Floor drain. Not used.

109-4.6 Conduits in floor and foundation. Not used.

109-4.7 Doors. Not used.

109-4.8 Painting. Not used.

109-4.9 Lights and switches. Not used.

INSTALLATION OF EQUIPMENT IN EXISTING VAULT

109-5.1 General. The Contractor shall furnish, install, and connect all equipment, equipment accessories, conduit, cables, wires, buses, grounds, and support necessary to ensure a complete and operable electrical distribution center for the airport lighting system as specified herein and shown in the plans. When specified, an emergency power supply and transfer switch shall be provided and installed.

The equipment installation and mounting shall comply with the requirements of the National Electrical Code and local code agency having jurisdiction. All electrical work shall comply with the NEC and local code agency having jurisdiction including the separation of under 600V work from 5,000V work.”

109-5.2 Power supply equipment. Transformers, regulators, booster transformers, and other power supply equipment items shall be furnished and installed at the location shown in the plans or as directed by the RPR. The power supply equipment shall be set on steel "H" sections, "I" beams, channels, or concrete blocks to provide a minimum space of 1-1/2 inch (38 mm) between the equipment and the floor. The equipment shall be placed so as not to obstruct the oil-sampling plugs of the oil-filled units; and nameplates shall, so far as possible, not be obscured.

109-5.3 Switchgear and panels. Not used.

109-5.4 Duct and conduit. The Contractor shall furnish and install square-type exposed metallic ducts with hinged covers for the control circuits in the vault. These shall be mounted along the walls behind all floor-mounted equipment and immediately below all wall-mounted equipment. The hinged covers shall be placed to open from the front side with the hinges at the front bottom.

Wall brackets for square ducts shall be installed at all joints 2 feet (60 cm) or more apart with intermediate brackets as specified. Conduit shall be used between square ducts and equipment or between different items of equipment when the equipment is designed for conduit connection. When the equipment is not designed for conduit connection, conductors shall enter the square-type control duct through insulating bushings in the duct or on the conduit risers.

109-5.5 Wiring and connections. The Contractor shall make all necessary electrical connections in the vault per the wiring diagrams furnished and as directed by the RPR. In wiring to the terminal blocks, the Contractor shall leave sufficient extra length on each control lead to make future changes in connections at the terminal block. This shall be accomplished by running each control lead the longest way around the box to the proper terminal. Leads shall be neatly laced in place.

109-5.6 Marking and labeling. All equipment, control wires, terminal blocks, etc., shall be tagged, marked, or labeled as specified below:

a. Wire identification. The Contractor shall furnish and install self-sticking wire labels or identifying tags on all control wires at the point where they connect to the control equipment or to the terminal blocks. Wire labels, if used, shall be of the self-sticking preprinted type and of the manufacturer's recommended size for the wire involved. Identification -markings designated in the plans shall be followed. Tags, if used, shall be of fiber not less than 3/4 inch (19 mm) in diameter and not less than 1/32 inch (1 mm) thick. Identification markings designated in the plans shall be stamped on tags by means of small tool dies. Each tag shall be securely tied to the proper wire by a nonmetallic cord.

b. Labels. The Contractor shall stencil identifying labels on the cases of regulators, breakers, and distribution and control relay cases with white oil paint as designated by the RPR. The letters and numerals shall be not less than one inch (25 mm) in height and shall be of proportionate width. The Contractor shall also mark the correct circuit designations per the wiring diagram on the terminal marking strips, which are a part of each terminal block.

109-5.7 Concrete equipment pad. The Contractor shall furnish and install concrete equipment pad as indicated on the drawings. Equipment pad to be extended such that the existing CCR's can be pulled out and allow for stacking of CCR's without hitting the existing square duct raceway. See Plans for clarification.

METHOD OF MEASUREMENT

109-6.1 The quantity of equipment to be paid for under this item shall consist of all equipment installed, connected and accepted as a complete unit ready for operation within an existing vault.

BASIS OF PAYMENT

109-7.1 Payment will be made at the contract unit price for each completed and accepted existing vault modifications of concrete equipment pad and equipment installation. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item L-109-7.1 Miscellaneous Electrical Vault Modifications - per Lump Sum

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Advisory Circulars (AC)

AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-3	Specification for L-821, Panels for Remote Control of Airport Lighting
AC 150/5345-5	Circuit Selector Switch
AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-10	Specification for Constant Current Regulators and Regulator Monitors
AC 150/5345-13	Specification for L-841 Auxiliary Relay Cabinet Assembly for Pilot Control of Airport Lighting Circuits
AC 150/5345-49	Specification L-854, Radio Control Equipment;
AC 150/5345-53	Airport Lighting Equipment Certification Program

American National Standards Institute / Insulated Cable Engineers Association (ANSI/ICEA)

ANSI/ICEA S-85-625	Standard for Telecommunications Cable Aircore, Polyolefin Insulated, Copper Conductor Technical Requirements

ASTM International (ASTM)

ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM C62	Standard Specification for Building Brick (Solid Masonry Units Made from Clay or Shale)
ASTM C90	Standard Specification for Loadbearing Concrete Masonry Units
ASTM D2823	Standard Specification for Asphalt Roof Coatings, Asbestos Containing
ASTM D4479	Standard Specification for Asphalt Roof Coatings – Asbestos-Free

Commercial Item Description (CID)

A-A 59544	Cable and Wire, Electrical (Power, Fixed Installation) Institute of Electrical and Electronic Engineers (IEEE)
IEEE 1584	Guide for Performing Arc-Flash Hazard Calculations

Master Painter's Institute (MPI)

MPI Reference #9	Alkyd, Exterior, Gloss (MPI Gloss Level 6)

Underwriters Laboratories (UL)

UL Standard 6	Electrical Rigid Metal Conduit – Steel
UL Standard 514B	Conduit, Tubing, and Cable Fittings
UL Standard 514C	Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers
UL Standard 651	Schedule 40, 80, Type EB and A Rigid PVC Conduit and Fittings
UL Standard 651A	Type EB and A Rigid PVC Conduit and HDPE Conduit

National Fire Protection Association (NFPA)

NFPA-70

National Electrical Code (NEC)

NFPA-70E

Standard for Electrical Safety in the Workplace

NFPA-780

Standard for the Installation of Lightning Protection Systems

END OF ITEM L-109

NOT FOR BID

Item L-110 Airport Underground Electrical Duct Banks and Conduits

DESCRIPTION

110-1.1 This item shall consist of underground electrical conduits and duct banks (single or multiple conduits encased in concrete or buried in sand) installed per this specification at the locations and per the dimensions, designs, and details shown on the plans. This item shall include furnishing and installing of all underground electrical duct banks and individual and multiple underground conduits and removal of existing duct banks. It shall also include all turfing trenching, backfilling, removal, and restoration of any paved or turfed areas; concrete encasement, mandrelling, pulling lines, duct markers, plugging of conduits, and the testing of the installation as a completed system ready for installation of cables per the plans and specifications. This item shall also include furnishing and installing conduits and all incidentals for providing positive drainage of the system. Verification of existing ducts is incidental to the pay items provided in this specification.

EQUIPMENT AND MATERIALS

110-2.1 General.

a. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the RPR.

b. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per these specifications and acceptable to the RPR. Materials supplied and/or installed that do not comply with these specifications shall be removed, when directed by the RPR and replaced with materials, that comply with these specifications, at the Contractor's cost.

c. All materials and equipment used to construct this item shall be submitted to the RPR for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise, and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in project that accrue directly or indirectly from late submissions or resubmissions of submittals.

d. The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. The Contractor's submittals shall be electronically submitted in pdf format, tabbed by specification section. The RPR reserves the right to reject any and all equipment, materials or procedures that do not meet the system design and the standards and codes specified in this document.

e. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least [twelve (12) months] from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

110-2.2 Steel conduit. Rigid galvanized steel (RGS) conduit and fittings shall be hot dipped galvanized inside and out and conform to the requirements of Underwriters Laboratories Standards 6, 514B, and 1242. All RGS conduits or RGS elbows installed below grade, in concrete, permanently wet locations or other similar environments shall be painted with a 10-mil thick coat of asphaltum sealer or shall have a factory-bonded polyvinyl chloride (PVC) cover. Any exposed galvanizing or steel shall be coated with 10 mils of asphaltum sealer. When using PVC coated RGS conduit, care shall be exercised not to damage the factory PVC coating. Damaged PVC coating shall be repaired per the manufacturer's written instructions. In lieu

of PVC coated RGS, corrosion wrap tape shall be permitted to be used where RGS is in contact with direct earth."

110-2.3 Plastic conduit. Plastic conduit and fittings shall conform to the following requirements:

- UL 514B covers W-C-1094-Conduit fittings all types, classes 1 thru 3 and 6 thru 10.
- UL 514C covers W-C-1094- all types, Class 5 junction box and cover in plastic (PVC).
- UL 651 covers W-C-1094-Rigid PVC Conduit, types I and II, Class 4.
- UL 651A covers W-C-1094-Rigid PVC Conduit and high-density polyethylene (HDPE) Conduit type III and Class 4.

Underwriters Laboratories Standards UL-651 and Article 352 of the current National Electrical Code shall be one of the following, as shown on the plans:

a. Type I—Schedule 40 and Schedule 80 PVC suitable for underground use either direct-buried or encased in concrete.

b. Type II—Schedule 40 PVC suitable for either above ground or underground use.

c. Type III – Schedule 80 PVC suitable for either above ground or underground use either direct-buried or encased in concrete.

d. Type III –HDPE pipe, minimum standard dimensional ratio (SDR) 11, suitable for placement with directional boring under pavement.

The type of solvent cement shall be as recommended by the conduit/fitting manufacturer.

110-2.4 Split conduit. Not used.

110-2.5 Conduit spacers. Conduit spacers shall be prefabricated interlocking units manufactured for the intended purpose. They shall be of double wall construction made of high grade, high density polyethylene complete with interlocking cap and base pads. They shall be designed to accept No. 4 reinforcing bars installed vertically.

110-2.6 Concrete. Concrete shall be proportioned, placed, and cured per Item P-610, Concrete for Miscellaneous Structures.

110-2.7 Precast concrete structures. Precast concrete structures shall be furnished by a plant meeting National Precast Concrete Association Plant Certification Program or another RPR approved third party certification program. Precast concrete structures shall conform to ASTM C478.

110-2.8 Flowable backfill. Flowable material used to back fill conduit and duct bank trenches shall conform to the requirements of Item P-153, Controlled Low Strength Material.

110-2.9 Detectable warning tape. Plastic, detectable, American Public Works Association (APWA) red (electrical power lines, cables, conduit and lighting cable), orange (telephone/fiber optic cabling) with continuous legend magnetic tape shall be polyethylene film with a metallized foil core and shall be 3-6 inches wide. Detectable tape is incidental to the respective bid item.

CONSTRUCTION METHODS

110-3.1 General. The Contractor shall install underground duct banks and conduits at the approximate locations indicated on the plans. The RPR shall indicate specific locations as the work progresses, if required to differ from the plans. Duct banks and conduits shall be of the size, material, and type indicated on the plans or specifications. Where no size is indicated on the plans or in the specifications, conduits shall be not less than 2 inches inside diameter or comply with the National Electrical Code based on cable to be installed, whichever is larger. All duct bank and conduit lines shall be laid so as to grade toward access points and duct or conduit ends for drainage. Unless shown otherwise on the plans, grades shall be at least 3 inches per 100 feet. On runs where it is not practicable to maintain the grade all one way, the duct bank and conduit lines shall be graded from the center in both directions toward access points or conduit ends, with a drain into the storm drainage system. Pockets or traps where moisture may accumulate

shall be avoided. Under pavement, the top of the duct bank shall not be less than 18 inches below the subgrade; in other locations, the top of the duct bank or underground conduit shall be not less than 18 inches below finished grade.

The Contractor shall mandrel each individual conduit whether the conduit is direct-buried or part of a duct bank. An iron-shod mandrel, not more than 1/4 inch smaller than the bore of the conduit shall be pulled or pushed through each conduit. The mandrel shall have a leather or rubber gasket slightly larger than the conduit hole.

The Contractor shall swab out all conduits/ducts and clean base can, manhole, pull boxes, etc., interiors immediately prior to pulling cable. Once cleaned and swabbed the light bases, manholes, pull boxes, etc., and all accessible points of entry to the duct/conduit system shall be kept closed except when installing cables. Cleaning of ducts, base cans, manholes, etc., is incidental to the pay item of the item being cleaned. All raceway systems left open, after initial cleaning, for any reason shall be recleaned at the Contractor's expense. All accessible points shall be kept closed when not installing cable. The Contractor shall verify existing ducts proposed for use in this project as clear and open. The Contractor shall notify the RPR of any blockage in the existing ducts.

For pulling the permanent wiring, each individual conduit, whether the conduit is direct-buried or part of a duct bank, shall be provided with a 200-pound test polypropylene pull rope. The ends shall be secured and sufficient length shall be left in access points to prevent it from slipping back into the conduit. Where spare conduits are installed, as indicated on the plans, the open ends shall be plugged with removable tapered plugs, designed for this purpose.

All conduits shall be securely fastened in place during construction and shall be plugged to prevent contaminants from entering the conduits. Any conduit section having a defective joint shall not be installed. Ducts shall be supported and spaced apart using approved spacers at intervals not to exceed 5 feet.

Unless otherwise shown on the plans, concrete encased duct banks shall be used when crossing under pavements expected to carry aircraft loads, such as runways, taxiways, taxilanes, ramps and aprons. When under paved shoulders and other paved areas, conduit and duct banks shall be encased using flowable fill for protection.

All conduits within concrete encasement of the duct banks shall terminate with female ends for ease in current and future use. Install factory plugs in all unused ends. Do not cover the ends or plugs with concrete.

Where turf is well established and the sod can be removed, it shall be carefully stripped and properly stored.

Trenches for conduits and duct banks may be excavated manually or with mechanical trenching equipment unless in pavement, in which case they shall be excavated with mechanical trenching equipment. Walls of trenches shall be essentially vertical so that a minimum of shoulder surface is disturbed. Blades of graders shall not be used to excavate the trench.

When rock is encountered, the rock shall be removed to a depth of at least 3 inches (75 mm) below the required conduit or duct bank depth and it shall be replaced with bedding material of earth or sand containing no mineral aggregate particles that would be retained on a 1/4-inch (6.3 mm) sieve. Flowable backfill may alternatively be used.

Underground electrical warning (Caution) tape shall be installed in the trench above all underground duct banks and conduits in unpaved areas. Contractor shall submit a sample of the proposed warning tape for approval by the RPR. If not shown on the plans, the warning tape shall be located 6 inches above the duct/conduit or the counterpoise wire if present.

Joints in plastic conduit shall be prepared per the manufacturer's recommendations for the particular type of conduit. Plastic conduit shall be prepared by application of a plastic cleaner and brushing a plastic solvent on the outside of the conduit ends and on the inside of the couplings. The conduit fitting shall then be slipped together with a quick one-quarter turn twist to set the joint tightly. Where more than one conduit is placed in a single trench, or in duct banks, joints in the conduit shall be staggered a minimum of 2 feet.

Changes in direction of runs exceeding 10 degrees, either vertical or horizontal, shall be accomplished using manufactured sweep bends.

Whether or not specifically indicated on the drawings, where the soil encountered at established duct bank grade is an unsuitable material, as determined by the RPR, the unsuitable material shall be removed per Item P-152 and replaced with suitable material. Additional duct bank supports shall be installed, as approved by the RPR.

All excavation shall be unclassified and shall be considered incidental to Item L-110. Dewatering necessary for duct installation, and erosion per federal, state, and local requirements is incidental to Item L-110.

Unless otherwise specified, excavated materials that are deemed by the RPR to be unsuitable for use in backfill or embankments shall be removed and disposed of offsite.

Any excess excavation shall be filled with suitable material approved by the RPR and compacted per Item P-152.

It is the Contractor's responsibility to locate existing utilities within the work area prior to excavation. Where existing active cables cross proposed installations, the Contractor shall ensure that these cables are adequately protected. Where crossings are unavoidable, no splices will be allowed in the existing cables, except as specified on the plans. Installation of new cable where such crossings must occur shall proceed as follows:

a. Existing cables shall be located manually. Unearthed cables shall be inspected to assure absolutely no damage has occurred

b. Trenching, etc., in cable areas shall then proceed with approval of the RPR, with care taken to minimize possible damage or disruption of existing cable, including careful backfilling in area of cable.

In the event that any previously identified cable is damaged during the course of construction, the Contractor shall be responsible for the complete repair.

110-3.2 Duct banks. Unless otherwise shown in the plans, duct banks shall be installed so that the top of the concrete envelope is not less than 18 inches below the bottom of the base or stabilized base course layers where installed under runways, taxiways, aprons, or other paved areas, and not less than 18 inches below finished grade where installed in unpaved areas.

Unless otherwise shown on the plans, duct banks under paved areas shall extend at least 3 feet beyond the edges of the pavement or 3 feet beyond any under drains that may be installed alongside the paved area. Trenches for duct banks shall be opened the complete length before concrete is placed so that if any obstructions are encountered, provisions can be made to avoid them. Unless otherwise shown on the plans, all duct banks shall be placed on a layer of concrete not less than 3 inches thick prior to its initial set. The Contractor shall space the conduits not less than 3 inches apart (measured from outside wall to outside wall). All such multiple conduits shall be placed using conduit spacers applicable to the type of conduit. As the conduit laying progresses, concrete shall be placed around and on top of the conduits not less than 3 inches thick unless otherwise shown on the plans. All conduits shall terminate with female ends for ease of access in current and future use. Install factory plugs in all unused ends. Do not cover the ends or plugs with concrete.

Conduits forming the duct bank shall be installed using conduit spacers. No. 4 reinforcing bars shall be driven vertically into the soil a minimum of 6 inches to anchor the assembly into the earth prior to placing the concrete encasement. For this purpose, the spacers shall be fastened down with locking collars attached to the vertical bars. Spacers shall be installed at 5-foot intervals. Spacers shall be in the proper sizes and configurations to fit the conduits. Locking collars and spacers shall be submitted to the RPR for review prior to use.

When specified, the Contractor shall reinforce the bottom side and top of encasements with steel reinforcing mesh or fabric or other approved metal reinforcement. When directed, the Contractor shall supply additional supports where the ground is soft and boggy, where ducts cross under roadways, or where shown on the plans. Under such conditions, the complete duct structure shall be supported on reinforced concrete footings, piers, or piles located at approximately 5-foot intervals.

All pavement surfaces that are to have ducts installed therein shall be neatly saw cut to form a vertical face. All excavation shall be included in the contract with price for the duct.

Install a plastic, detectable, color as noted, 3 to 6 inches wide tape, 8 inches minimum below grade above all underground conduit or duct lines not installed under pavement. Utilize the 3-inch wide tape only for single conduit runs. Utilize the 6-inch wide tape for multiple conduits and duct banks. For duct banks equal to or greater than 24 inches in width, utilize more than one tape for sufficient coverage and identification of the duct bank as required.

When existing cables are to be placed in split duct, encased in concrete, the cable shall be carefully located and exposed by hand tools. Prior to being placed in duct, the RPR shall be notified so that he may inspect the cable and determine that it is in good condition. Where required, split duct shall be installed as shown on the drawings or as required by the RPR.

110-3.3 Conduits without concrete encasement. Trenches for single-conduit lines shall be not less than 6 inches nor more than 12 inches wide. The trench for 2 or more conduits installed at the same level shall be proportionately wider. Trench bottoms for conduits without concrete encasement shall be made to conform accurately to grade so as to provide uniform support for the conduit along its entire length.

Unless otherwise shown on the plans, a layer of fine earth material, at least 4 inches thick (loose measurement) shall be placed in the bottom of the trench as bedding for the conduit. The bedding material shall consist of soft dirt, sand or other fine fill, and it shall contain no particles that would be retained on a 1/4-inch sieve. The bedding material shall be tamped until firm. Flowable backfill may alternatively be used.

Unless otherwise shown on plans, conduits shall be installed so that the tops of all conduits within the Airport's secured area where trespassing is prohibited are at least 18 inches below the finished grade. Conduits outside the Airport's secured area shall be installed so that the tops of the conduits are at least 24 inches below the finished grade per National Electric Code (NEC), Table 300.5.

When two or more individual conduits intended to carry conductors of equivalent voltage insulation rating are installed in the same trench without concrete encasement, they shall be spaced not less than 3 inches apart (measured from outside wall to outside wall) in a horizontal direction and not less than 6 inches apart in a vertical direction. Where two or more individual conduits intended to carry conductors of differing voltage insulation rating are installed in the same trench without concrete encasement, they shall be placed not less than 3 inches apart (measured from outside wall to outside wall) in a horizontal direction and not less than 6 inches apart in a vertical direction.

Trenches shall be opened the complete length between normal termination points before conduit is installed so that if any unforeseen obstructions are encountered, proper provisions can be made to avoid them.

Conduits shall be installed using conduit spacers. No. 4 reinforcing bars shall be driven vertically into the soil a minimum of 6 inches to anchor the assembly into the earth while backfilling. For this purpose, the spacers shall be fastened down with locking collars attached to the vertical bars. Spacers shall be installed at 5-foot intervals. Spacers shall be in the proper sizes and configurations to fit the conduits. Locking collars and spacers shall be submitted to the RPR for review prior to use.

110-3.4 Markers. The location of each end and of each change of direction of conduits and duct banks shall be marked by a concrete slab marker 2 feet square and 4 - 6 inches thick extending approximately one inch above the surface. The markers shall also be located directly above the ends of all conduits or duct banks, except where they terminate in a junction/access structure or building. Each cable or duct run from a line of lights and signs to the equipment vault must be marked at approximately every 200 feet along the cable or duct run, with an additional marker at each change of direction of cable or duct run.

The Contractor shall impress the word "DUCT" or "CONDUIT" on each marker slab. Impression of letters shall be done in a manner, approved by the RPR, for a neat, professional appearance. All letters and words must be neatly stenciled. After placement, all markers shall be given one coat of high-visibility orange paint, as approved by the RPR. The Contractor shall also impress on the slab the number and size of conduits beneath the marker along with all other necessary information as determined by the RPR. The letters shall be 4 inches high and 3 inches wide with width of stroke 1/2 inch and 1/4 inch deep or as large as the available space permits. Furnishing and installation of duct markers is incidental to the respective duct pay item.

110-3.5 Backfilling for conduits. For conduits, 8 inches of sand, soft earth, or other fine fill (loose measurement) shall be placed around the conduits ducts and carefully tamped around and over them with

hand tampers. The remaining trench shall then be backfilled and compacted per Item P-152 except that material used for back fill shall be select material not larger than 4 inches in diameter.

Flowable backfill may alternatively be used.

Trenches shall not contain pools of water during back filling operations.

The trench shall be completely backfilled and tamped level with the adjacent surface; except that, where sod is to be placed over the trench, the backfilling shall be stopped at a depth equal to the thickness of the sod to be used, with proper allowance for settlement.

Any excess excavated material shall be removed and disposed of per instructions issued by the RPR.

110-3.6 Backfilling for duct banks. After the concrete has cured, the remaining trench shall be backfilled and compacted per Item P-152 "Excavation and Embankment" except that the material used for backfill shall be select material not larger than 4 inches in diameter. In addition to the requirements of Item P-152, where duct banks are installed under pavement, one moisture/density test per lift shall be made for each 250 linear feet of duct bank or one work period's construction, whichever is less.

Flowable backfill may alternatively be used.

Trenches shall not contain pools of water during backfilling operations.

The trench shall be completely backfilled and tamped level with the adjacent surface; except that, where sod is to be placed over the trench, the backfilling shall be stopped at a depth equal to the thickness of the sod to be used, with proper allowance for settlement.

Any excess excavated material shall be removed and disposed of per instructions issued by the RPR.

110-3.7 Restoration. Where sod has been removed, it shall be replaced as soon as possible after the backfilling is completed. All areas disturbed by the work shall be restored to its original condition. The restoration shall include seeding of all disturbed areas per T-901. The Contractor shall be held responsible for maintaining all disturbed surfaces and replacements until final acceptance. All restoration shall be considered incidental to the respective L-110 pay item. Following restoration of all trenching near airport movement surfaces, the Contractor shall thoroughly visually inspect the area for foreign object debris (FOD), and remove any such FOD that is found. This FOD inspection and removal shall be considered incidental to the pay item of which it is a component part.

110-3.8 Ownership of removed cable. Removed cable shall become the property of the Contractor. The Contractor shall have sole responsibility for the removal, temporary storage, and disposal of removed cable, conduit, wire, and associated debris.

METHOD OF MEASUREMENT

110-4.1 Underground conduits and duct banks shall be measured by the linear feet of conduits and duct banks installed, including encasement, locator tape, trenching and backfill with designated material, and restoration, and for drain lines, the termination at the drainage structure, all measured in place, completed, and accepted. Separate measurement shall be made for the various types and sizes.

BASIS OF PAYMENT

110-5.1 Payment will be made at the contract unit price per linear foot for each type and size of conduit and duct bank completed and accepted, including trench and backfill with the designated material, and, for drain lines, the termination at the drainage structure. This price shall be full compensation for removal and disposal of existing duct banks and conduits as shown on the plans, furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item per the provisions and intent of the plans and specifications.

Payment will be made under:

Item L-110-5.1a	Non-Encased Electrical Duct Bank, 2W-2 inch Schedule 40 PVC - per linear foot
Item L-110-5.1b	Concrete-Encased Electrical Duct Bank, 2W-2 inch Schedule 40 PVC, with AC Top - per linear foot

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Advisory Circular (AC)

AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-53	Airport Lighting Equipment Certification Program

ASTM International (ASTM)

ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement

National Fire Protection Association (NFPA)

NFPA-70	National Electrical Code (NEC)

Underwriters Laboratories (UL)

UL Standard 6	Electrical Rigid Metal Conduit - Steel
UL Standard 514B	Conduit, Tubing, and Cable Fittings
UL Standard 514C	Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers
UL Standard 1242	Electrical Intermediate Metal Conduit Steel
UL Standard 651	Schedule 40, 80, Type EB and A Rigid PVC Conduit and Fittings
UL Standard 651A	Type EB and A Rigid PVC Conduit and HDPE Conduit

END OF ITEM L-110

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NOT FOR BID

Item L-115 Electrical Manholes and Junction Structures

DESCRIPTION

115-1.1 This item shall consist of electrical manholes and junction structures (hand holes, pull boxes, junction cans, etc.) installed per this specification, at the indicated locations and conforming to the lines, grades and dimensions shown on the plans or as required by the RPR. This item shall include the installation of each electrical manhole and/or junction structures with all associated excavation, backfilling, sheeting and bracing, concrete, reinforcing steel, ladders, appurtenances, testing, dewatering and restoration of surfaces to the satisfaction of the RPR.

EQUIPMENT AND MATERIALS

115-2.1 General.

a. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when so requested by the RPR.

b. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per these specifications. Materials supplied and/or installed that do not comply with these specifications shall be removed (when directed by the RPR) and replaced with materials that comply with these specifications at the Contractor's cost.

c. All materials and equipment used to construct this item shall be submitted to the RPR for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify products or models applicable to this project. Indicate all optional equipment and delete any non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment to which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in the project that may accrue directly or indirectly from late submissions or resubmissions of submittals.

d. The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. The Contractor's submittals shall be electronically submitted in pdf format, tabbed by specification section. The RPR reserves the right to reject any and all equipment, materials or procedures that do not meet the system design and the standards and codes, specified in this document.

e. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from the date of final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

115-2.2 Concrete structures. Concrete shall be proportioned, placed, and cured per Item P-610, Concrete for Miscellaneous Structures. Cast-in-place concrete structures shall be as shown on the plans.

115-2.3 Precast concrete structures. Precast concrete structures shall be furnished by a plant meeting National Precast Concrete Association Plant Certification Program or another engineer approved third party certification program. Provide precast concrete structures where shown on the plans.

Precast concrete structures shall be an approved standard design of the manufacturer. Precast units shall have mortar or bitumastic sealer placed between all joints to make them watertight. The structure shall be designed to withstand 100,000 lb aircraft loads, unless otherwise shown on the plans. Openings or knockouts shall be provided in the structure as detailed on the plans.

Threaded inserts and pulling eyes shall be cast in as shown on the plans.

If the Contractor chooses to propose a different structural design, signed and sealed shop drawings, design calculations, and other information requested by the RPR shall be submitted by the Contractor to allow for a full evaluation by the RPR. The RPR shall review per the process defined in the General Provisions.

115-2.4 Junction boxes. Junction boxes shall be L-867 Class 1 (non-load bearing) or L-868 Class 1 (load bearing) airport light bases that are encased in concrete. The light bases shall have a L-894 blank cover, gasket, and stainless steel hardware. All bolts, studs, nuts, lock washers, and other similar fasteners used for the light fixture assemblies must be fabricated from 316L (equivalent to EN 1.4404), 18-8, 410, or 416 stainless steel. If 18-8, 410, or 416 stainless steel is utilized it shall be passivated and be free from any discoloration. Covers shall be 3/8-inch thickness for L-867 and 3/4-inch thickness for L-868. All junction boxes shall be provided with both internal and external ground lugs.

115-2.5 Mortar. The mortar shall be composed of one part of cement and two parts of mortar sand, by volume. The cement shall be per the requirements in ASTM C150, Type I. The sand shall be per the requirements in ASTM C144. Hydrated lime may be added to the mixture of sand and cement in an amount not to exceed 15% of the weight of cement used. The hydrated lime shall meet the requirements of ASTM C206. Water shall be potable, reasonably clean and free of oil, salt, acid, alkali, sugar, vegetable, or other substances injurious to the finished product.

115-2.6 Concrete. Concrete shall be proportioned, placed, and cured per Item P-610, Concrete for Miscellaneous Structures.

115-2.7 Frames and covers. The frames shall conform to one of the following requirements:

- a. ASTM A48 Gray iron castings
- b. ASTM A47 Malleable iron castings
- c. ASTM A27 Steel castings
- d. ASTM A283, Grade D Structural steel for grates and frames
- e. ASTM A536 Ductile iron castings
- f. ASTM A897 Austempered ductile iron castings

All castings specified shall at a minimum withstand a maximum tire pressure of 150 psi and maximum load of 100,000 lbs.

All castings or structural steel units shall conform to the dimensions shown on the plans and shall be designed to support the loadings specified.

Each frame and cover unit shall be provided with fastening members to prevent it from being dislodged by traffic, but which will allow easy removal for access to the structure.

All castings shall be thoroughly cleaned. After fabrication, structural steel units shall be galvanized to meet the requirements of ASTM A123.

Each cover shall have the word "ELECTRIC" or other approved designation cast on it. Each frame and cover shall be as shown on the plans or approved equivalent. No cable notches are required.

Each manhole shall be provided with a "DANGER -- PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER" safety warning sign as detailed in the Contract Documents and in accordance with OSHA 1910.146 (c)(2).

115-2.8 Ladders. Ladders, if specified, shall be galvanized steel or as shown on the plans.

115-2.9 Reinforcing steel. All reinforcing steel shall be deformed bars of new billet steel meeting the requirements of ASTM A615, Grade 60.

115-2.10 Bedding/special backfill. Bedding or special backfill shall be as shown on the plans.

115-2.11 Flowable backfill. Flowable material used to backfill shall conform to the requirements of Item P-153, Controlled Low Strength Material.

115-2.12 Cable trays. Cable trays shall be of galvanized steel. Cable trays shall be located as shown on the plans.

115-2.13 Plastic conduit. Plastic conduit shall comply with Item L-110, Airport Underground Electrical Duct Banks and Conduits.

115-2.14 Conduit terminators. Conduit terminators shall be pre-manufactured for the specific purpose and sized as required or as shown on the plans.

115-2.15 Pulling-in irons. Pulling-in irons shall be manufactured with 7/8-inch diameter hot-dipped galvanized steel or stress-relieved carbon steel roping designed for concrete applications (7 strand, 1/2-inch diameter with an ultimate strength of 270,000 psi. Where stress-relieved carbon steel roping is used, a rustproof sleeve shall be installed at the hooking point and all exposed surfaces shall be encapsulated with a polyester coating to prevent corrosion.

115-2.16 Ground rods. Ground rods shall be one piece, copper clad steel. The ground rods shall be of the length and diameter specified on the plans, but in no case shall they be less than 10 feet long nor less than 3/4 inch in diameter.

CONSTRUCTION METHODS

115-3.1 Unclassified excavation. It is the Contractor's responsibility to locate existing utilities within the work area prior to excavation. Damage to utility lines, through lack of care in excavating, shall be repaired or replaced to the satisfaction of the RPR without additional expense to the Owner.

The Contractor shall perform excavation for structures and structure footings to the lines and grades or elevations shown on the plans or as staked by the RPR. The excavation shall be of sufficient size to permit the placing of the full width and length of the structure or structure footings shown.

All excavation shall be unclassified and shall be considered incidental to Item L-115. Dewatering necessary for structure installation and erosion per federal, state, and local requirements is incidental to Item L-115.

Boulders, logs and all other objectionable material encountered in excavation shall be removed. All rock and other hard foundation material shall be cleaned of all loose material and cut to a firm surface either level, stepped or serrated, as directed by the RPR. All seams, crevices, disintegrated rock and thin strata shall be removed. When concrete is to rest on a surface other than rock, special care shall be taken not to disturb the bottom of the excavation. Excavation to final grade shall not be made until just before the concrete or reinforcing is to be placed.

The Contractor shall provide all bracing, sheeting and shoring necessary to implement and protect the excavation and the structure as required for safety or conformance to governing laws. The cost of bracing, sheeting and shoring shall be included in the unit price bid for the structure.

Unless otherwise provided, bracing, sheeting and shoring involved in the construction of this item shall be removed by the Contractor after the completion of the structure. Removal shall be effected in a manner that will not disturb or mar finished masonry. The cost of removal shall be included in the unit price bid for the structure.

After each excavation is completed, the Contractor shall notify the RPR. Structures shall be placed after the RPR has approved the depth of the excavation and the suitability of the foundation material.

Prior to installation the Contractor shall provide a minimum of 6 inches of sand or a material approved by the RPR as a suitable base to receive the structure. The base material shall be compacted and graded level and at proper elevation to receive the structure in proper relation to the conduit grade or ground cover requirements, as indicated on the plans.

115-3.2 Concrete structures. Concrete structures shall be built on prepared foundations conforming to the dimensions and form indicated on the plans. The concrete and construction methods shall conform to the requirements specified in Item P-610. Any reinforcement required shall be placed as indicated on the plans and shall be approved by the RPR before the concrete is placed.

115-3.3 Precast unit installations. Precast units shall be installed plumb and true. Joints shall be made watertight by use of sealant at each tongue-and-groove joint and at roof of manhole. Excess sealant shall be removed and severe surface projections on exterior of neck shall be removed.

115-3.4 Placement and treatment of castings, frames and fittings. All castings, frames and fittings shall be placed in the positions indicated on the Plans or as directed by the RPR and shall be set true to line and to correct elevation. If frames or fittings are to be set in concrete or cement mortar, all anchors or bolts shall be in place and position before the concrete or mortar is placed. The unit shall not be disturbed until the mortar or concrete has set.

Field connections shall be made with bolts, unless indicated otherwise. Welding will not be permitted unless shown otherwise on the approved shop drawings and written approval is granted by the casting manufacturer. Erection equipment shall be suitable and safe for the workman. Errors in shop fabrication or deformation resulting from handling and transportation that prevent the proper assembly and fitting of parts shall be reported immediately to the RPR and approval of the method of correction shall be obtained. Approved corrections shall be made at Contractor's expense.

Anchor bolts and anchors shall be properly located and built into connection work. Bolts and anchors shall be preset by the use of templates, or such other methods as may be required to locate the anchors and anchor bolts accurately.

Pulling-in irons shall be located opposite all conduit entrances into structures to provide a strong, convenient attachment for pulling-in blocks when installing cables. Pulling-in irons shall be set directly into the concrete walls of the structure.

115-3.5 Installation of ladders. Ladders shall be installed such that they may be removed if necessary. Mounting brackets shall be supplied top and bottom and shall be cast in place during fabrication of the structure or drilled and grouted in place after erection of the structure.

115-3.6 Removal of sheeting and bracing. In general, all sheeting and bracing used to support the sides of trenches or other open excavations shall be withdrawn as the trenches or other open excavations are being refilled. That portion of the sheeting extending below the top of a structure shall be withdrawn, unless otherwise directed, before more than 6 inches of material is placed above the top of the structure and before any bracing is removed. Voids left by the sheeting shall be carefully refilled with selected material and rammed tight with tools especially adapted for the purpose or otherwise as may be approved.

The RPR may direct the Contractor to delay the removal of sheeting and bracing if, in his judgment, the installed work has not attained the necessary strength to permit placing of backfill.

115-3.7 Backfilling. After a structure has been completed, the area around it shall be backfilled in horizontal layers not to exceed 6 in thickness measured after compaction to the density requirements in Item P-152. Each layer shall be deposited all around the structure to approximately the same elevation. The top of the fill shall meet the elevation shown on the plans or as directed by the RPR.

Backfill shall not be placed against any structure until approval is given by the RPR. In the case of concrete, such approval shall not be given until tests made by the laboratory under supervision of the RPR establish that the concrete has attained sufficient strength to provide a factor of safety against damage or strain in withstanding any pressure created by the backfill or the methods used in placing it.

Where required, the RPR may direct the Contractor to add, at his own expense, sufficient water during compaction to assure a complete consolidation of the backfill. The Contractor shall be responsible for all damage or injury done to conduits, duct banks, structures, property or persons due to improper placing or compacting of backfill.

115-3.8 Connection of duct banks. To relieve stress of joint between concrete-encased duct banks and structure walls, reinforcement rods shall be placed in the structure wall and shall be formed and tied into duct bank reinforcement at the time the duct bank is installed.

115-3.9 Grounding. A ground rod shall be installed in the floor of all concrete structures so that the top of rod extends 6 inches above the floor. The ground rod shall be installed within one foot of a corner of the concrete structure. Ground rods shall be installed prior to casting the bottom slab. Where the soil condition does not permit driving the ground rod into the earth without damage to the ground rod, the Contractor shall

drill a 4-inch diameter hole into the earth to receive the ground rod. The hole around the ground rod shall be filled throughout its length, below slab, with Portland cement grout. Ground rods shall be installed in precast bottom slab of structures by drilling a hole through bottom slab and installing the ground rod. Bottom slab penetration shall be sealed watertight with Portland cement grout around the ground rod.

A grounding bus of 4/0 bare stranded copper shall be exothermically bonded to the ground rod and loop the concrete structure walls. The ground bus shall be a minimum of one foot above the floor of the structure and separate from other cables. No. 2 American wire gauge (AWG) bare copper pigtails shall bond the grounding bus to all cable trays and other metal hardware within the concrete structure. Connections to the grounding bus shall be exothermic. If an exothermic weld is not possible, connections to the grounding bus shall be made by using connectors approved for direct burial in soil or concrete per UL 467. Hardware connections may be mechanical, using a lug designed for that purpose.

115-3.10 Cleanup and repair. After erection of all galvanized items, damaged areas shall be repaired by applying a liquid cold-galvanizing compound per MIL-P-21035. Surfaces shall be prepared, and compound applied per the manufacturer's recommendations.

Prior to acceptance, the entire structure shall be cleaned of all dirt and debris.

115-3.11 Restoration. After the backfill is completed, the Contractor shall dispose of all surplus material, dirt and rubbish from the site. The Contractor shall restore all disturbed areas equivalent to or better than their original condition. All sodding, grading and restoration shall be considered incidental to the respective Item L-115 pay item.

The Contractor shall grade around structures as required to provide positive drainage away from the structure.

Areas with special surface treatment, such as roads, sidewalks, or other paved areas shall have backfill compacted to match surrounding areas, and surfaces shall be repaired using materials comparable to original materials.

Following restoration of all trenching near airport movement surfaces, the Contractor shall thoroughly visually inspect the area for foreign object debris (FOD) and remove any such FOD that is found. This FOD inspection and removal shall be considered incidental to the pay item of which it is a component part.

After all work is completed, the Contractor shall remove all tools and other equipment, leaving the entire site free, clear and in good condition.

115-3.12 Inspection. Prior to final approval, the electrical structures shall be thoroughly inspected for conformance with the plans and this specification. Any indication of defects in materials or workmanship shall be further investigated and corrected. The earth resistance to ground of each ground rod shall not exceed 25 ohms. Each ground rod shall be tested using the fall-of-potential ground impedance test per American National Standards Institute / Institute of Electrical and Electronic Engineers (ANSI/IEEE) Standard 81. This test shall be performed prior to establishing connections to other ground electrodes.

115-3.13 Manhole elevation adjustments. The Contractor shall adjust the tops of existing manholes in areas designated in the Contract Documents to the new elevations shown. The Contractor shall be responsible for determining the exact height adjustment required to raise or lower the top of each manhole to the new elevations. The existing top elevation of each manhole to be adjusted shall be determined in the field and subtracted/added from the proposed top elevation.

The Contractor shall remove/extend the existing top section or ring and cover on the manhole structure or manhole access. The Contractor shall install precast concrete sections or grade rings of the required dimensions to adjust the manhole top to the new proposed elevation or shall cut the existing manhole walls to shorten the existing structure, as required by final grades. The Contractor shall reinstall the manhole top section or ring and cover on top and check the new top elevation.

The Contractor shall construct a concrete slab around the top of adjusted structures located in graded areas that are not to be paved. The concrete slab shall conform to the dimensions shown on the plans.

115-3.14 Duct extension to existing ducts. Where existing concrete encased ducts are to be extended, the duct extension shall be concrete encased plastic conduit. The fittings to connect the ducts together shall

be standard manufactured connectors designed and approved for the purpose. The duct extensions shall be installed according to the concrete encased duct detail and as shown on the plans.

METHOD OF MEASUREMENT

115-4.1 Electrical manholes and junction structures shall be measured by each unit completed in place and accepted. The following items shall be included in the price of each unit: All required excavation and dewatering; sheeting and bracing; all required backfilling with on-site materials; restoration of all surfaces and finished grading and turfing; all required connections; temporary cables and connections; and ground rod testing.

BASIS OF PAYMENT

115-5.1 The accepted quantity of electrical manholes and junction structures will be paid for at the Contract unit price per each, complete and in place. This price shall be full compensation for furnishing all materials and for all preparation, excavation, backfilling and placing of the materials, furnishing and installation of appurtenances and connections to duct banks and other structures as may be required to complete the item as shown on the plans and for all labor, equipment, tools and incidentals necessary to complete the structure.

Payment will be made under:

Item L-115-5.1	Electrical Pullbox, Size 1 (36"x36"x36"), Aircraft Rated Lid - Per Each

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

American National Standards Institute / Insulated Cable Engineers Association (ANSI/ICEA)

ANSI/IEEE STD 81	IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System

Advisory Circular (AC)

AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-26	Specification for L-823 Plug and Receptacle, Cable Connectors
AC 150/5345-42	Specification for Airport Light Bases, Transformer Housings, Junction Boxes, and Accessories
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-53	Airport Lighting Equipment Certification Program

Commercial Item Description (CID)

A-A 59544	Cable and Wire, Electrical (Power, Fixed Installation)

ASTM International (ASTM)

ASTM A27	Standard Specification for Steel Castings, Carbon, for General Application
ASTM A47	Standard Specification for Ferritic Malleable Iron Castings
ASTM A48	Standard Specification for Gray Iron Castings
ASTM A123	Standard Specification for Zinc (Hot Dip Galvanized) Coatings on Iron and Steel Products

ASTM A283	Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates
ASTM A536	Standard Specification for Ductile Iron Castings
ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM A897	Standard Specification for Austempered Ductile Iron Castings
ASTM C144	Standard Specification for Aggregate for Masonry Mortar
ASTM C150	Standard Specification for Portland Cement
ASTM C206	Standard Specification for Finishing Hydrated Lime
FAA Engineering Brief (EB)	
EB #83	In Pavement Light Fixture Bolts
Mil Spec	
MIL-P-21035	Paint High Zinc Dust Content, Galvanizing Repair
National Fire Protection Association (NFPA)	
NFPA-70	National Electrical Code (NEC)

END OF ITEM L-115

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Item L-125 Installation of Airport Lighting Systems

DESCRIPTION

125-1.1 This item shall consist of airport lighting systems furnished and installed in accordance with this specification, the referenced specifications, and the applicable advisory circulars (ACs). The systems shall be installed at the locations and in accordance with the dimensions, design, and details shown in the plans. This item shall include the furnishing of all equipment, materials, services, and incidentals necessary to place the systems in operation as completed units to the satisfaction of the RPR.

EQUIPMENT AND MATERIALS

125-2.1 General.

a. Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified under the Airport Lighting Equipment Certification Program in accordance with AC 150/5345-53, current version. FAA certified airfield lighting shall be compatible with each other to perform in compliance with FAA criteria and the intended operation. If the Contractor provides equipment that does not perform as intended because of incompatibility with the system, the Contractor assumes all costs to correct the system for to operate properly.

b. Manufacturer's certifications shall not relieve the Contractor of their responsibility to provide materials in accordance with these specifications and acceptable to the RPR. Materials supplied and/or installed that do not comply with these specifications shall be removed, when directed by the RPR and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

c. All materials and equipment used shall be submitted to the RPR for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Clearly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be clearly made with arrows or circles (highlighting is not acceptable). The Contractor shall be responsible for delays in the project accruing directly or indirectly from late submissions or resubmissions of submittals.

d. The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. The Contractor's submittals shall be submitted in electronic PDF format, tabbed by specification section. The RPR reserves the right to reject any or all equipment, materials or procedures, which, in the RPR's opinion, does not meet the system design and the standards and codes, specified herein.

e. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from final acceptance by the Owner. All LED light fixtures, with the exception of obstruction lighting (AC 150/5345-43) must be warranted by the manufacturer for a minimum of 4 years after date of installation inclusive of all electronics." The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

EQUIPMENT AND MATERIALS

125-2.2 Conduit/Duct. Conduit shall conform to Specification Item L-110 Airport Underground Electrical Duct Banks and Conduits.

125-2.3 Cable and Counterpoise. Cable and Counterpoise shall conform to Item L-108 Underground Power Cable for Airports.

125-2.4 Tape. Rubber and plastic electrical tapes shall be Scotch Electrical Tape Numbers 23 and 88 respectively, as manufactured by 3M Company or an approved equal.

125-2.5 Cable Connections. Cable Connections shall conform to Item L-108 Installation of Underground Cable for Airports.

125-2.6 Retroreflective Markers. Not required.

125-2.7 Runway and Taxiway Lights. Not Required

125-2.8 Runway and Taxiway Signs. Not Required.

125-2.9 Runway End Identifier Light (REIL). The REIL fixtures shall meet the requirements of AC 150/5345-51, Type L-849I, Style E.

125-2.10 Precision Approach Path Indicator (PAPI). Not required.

125-2.11 Circuit Selector Cabinet. Not Required.

125-2.12 Light Base and Transformer Housings. Light Base and Transformer Housings should conform to the requirements of AC 150/5345-42. Light bases shall be Type L-867, Class 2A shall be provided as indicated or as required to accommodate the fixture or device installed thereon. Base plates, cover plates, and adapter plates shall be provided to accommodate various sizes of fixtures.

125-2.13 Isolation Transformers. Isolation Transformers shall be Type L-830, size as required for each installation. Transformer shall conform to AC 150/5345-47.

125-2.13 L-829 Ferroresonant Constant Current Regulator. The L-829 CCRs shall be independently certified according to the requirements of the latest edition FAA Advisory Circular 150/5345-10 "Specification for Constant Current Regulators and Regulator Monitors." The L-829 regulators shall be ferroresonant and shall have an output as noted on the drawings along with either three step or five step field selectable steps. All CCR's shall have an output current of 6.6A and an input voltage of 208Vac (as shown on the plans). The units shall have integral control power transformer to provide 120 VAC control power. The L-829 regulators shall reuse existing S1 cutouts.

CCR to be stacked per the plans. Design to be delegated and designed by contractor based on manufacturer's CCR size, weight, and structural requirements.

125-2.15 Miscellaneous Electrical Site Work. The contractor shall clean pullboxes that are used for REIL cable installation. Contractor shall use a method that is none destructive to clean dirt out of pullboxes.

125-2.16 Remove and Demolish Existing REIL's. The contractor shall remove the existing REIL system and demolish. REIL light unit foundations shall be removed completely, and the area restored to match surrounding areas. REIL's are currently connected to runway circuit and shall have the runway circuit reconnected such that the runway is operational without the REIL system.

INSTALLATION

125-3.1 Installation. The Contractor shall furnish, install, connect and test all equipment, accessories, conduit, cables, wires, buses, grounds and support items necessary to ensure a complete and operable airport lighting system as specified here and shown in the plans.

The equipment installation and mounting shall comply with the requirements of the National Electrical Code and state and local code agencies having jurisdiction.

The Contractor shall install the specified equipment in accordance with the applicable advisory circulars and the details shown on the plans.

125-3.2 Testing. All lights shall be fully tested by continuous operation for not less than 24 hours as a completed system prior to acceptance. The test shall include operating the constant current regulator in each step not less than 10 times at the beginning and end of the 24-hour test. The fixtures shall illuminate properly during each portion of the test.

125-3.3 Shipping and Storage. Equipment shall be shipped in suitable packing material to prevent damage during shipping. Store and maintain equipment and materials in areas protected from weather and physical damage. Any equipment and materials, in the opinion of the RPR, damaged during construction

or storage shall be replaced by the Contractor at no additional cost to the owner. Painted or galvanized surfaces that are damaged shall be repaired in accordance with the manufacturer's recommendations.

125-3.4 Elevated and In-pavement Lights. Water, debris, and other foreign substances shall be removed prior to installing fixture base and light.

A jig or holding device shall be used when installing each light fixture to ensure positioning to the proper elevation, alignment, level control, and azimuth control. Light fixtures shall be oriented with the light beams parallel to the runway or taxiway centerline and facing in the required direction. The outermost edge of fixture shall be level with the surrounding pavement. Surplus sealant or flexible embedding material shall be removed. The holding device shall remain in place until sealant has reached its initial set.

125-3.5 L-829 Ferroresonant Constant Current Regulator.

Installation. The Contractor shall furnish and install the L-829 CCRs as specified in the proposal and shown in the plans. The L-829s shall be mounted in the vault at the locations shown on the plans.

For CCR's that are stacking shall have structural support installed as required by manufacturer and be delegated design. Contractor to provide details indicated support structure to be used.

Electrical Connection. The Contractor shall furnish all labor and materials and shall make complete electrical connections in accordance with the wiring diagram furnished with the project plans including new circuit breakers in the distribution panel. The electrical installation shall conform to the requirements of the latest edition of National Fire Protection Agency, NFPA-70, National Electric Code.

Tests. The CCRs shall be calibrated according to the manufacturer's instructions using a True RMS meter. An open-circuit test, conducted according to the manufacturer's instructions, shall also be performed. The CCRs shall then be fully tested by continuous operation for not less than 24 hours prior to acceptance. The test shall include operating the constant current regulator in each step (Local and Remote) not less than 10 times at the beginning and end of the 24-hour test.

125-3.6 Miscellaneous Electrical Site Work.

Contractor shall be required to clean pullboxes as required to install new cable for REIL system. Contractor shall use non destructive cleaning method to clean the pullboxes to remove dirt.

125-3.7 Remove and Demolish Existing REIL's. The contractor shall remove the existing REIL system and demolish. REIL light unit foundations shall be removed completely, and the area restored to match surrounding areas. REIL's are currently connected to runway circuit and shall have the runway circuit reconnected such that the runway is operational without the REIL system.

125-3.8 ALCMS Hardware Upgrade. Airport to pay for ALCMS manufacturer software upgrade. The Contractor to install the Hardware required to connect equipment to the ALCMS and coordinate with manufacturer. An existing ALCMS is already installed and to have software upgraded along with connection of new CCR's into the existing ALCMS. See drawing plans to existing equipment to remain and new equipment to be connected.

The contractor under this project will be required and responsible for, at a minimum, the following:

Contractor to provide the following:

1. Connect new CCR's to ALCMS in the vault. See plans for new equipment. Existing CCR equipment already connected to existing ALCMS.
 - a. Install all required conduit, wireway, wire and miscellaneous material needed for a proper installation that meets all contract requirements regarding code and safety. This includes installation between ACE™ and the computer cabinet.
 - b. Make terminations for all ACE™ units. Terminations include landing, labeling, and dressing all wire connections within the ACE™ unit, inside the Constant Current Regulator (CCR).
 - c. Provide and install any auxiliary relays, contact points or circuit cards required for remote/local and primary power feedback for those CCRs that do not have appropriate output contact points. Other manufacturer CCRs may not offer these points and require additional hardware.

- d. Provide manpower and airport escorts as needed through entire installation, commissioning, and testing effort.
- e. Coordinate all on-site training activities including ATC training, maintenance training and operations training.

ALCMS Manufacturer to provide the following:

1. Drawing submittals for ALCMS Upgrades.
2. Tower Equipment including but not limited to:
 - a. Touch screen updates.
 - b. Tower computer software upgrades.
 - c. Program soft buttons to include new REIL CCR's controls.
 - i. Controls to include On/Off, 3 step selection, Auto/Manual.
 - d. Maintenance Roaming computer.
 - e. Vault Equipment
 - i. Computer Software
 - ii. Computer screen update with new buttons for REIL CCR's.
 - f. Testing and Demonstration for maintenance staff.

METHOD OF MEASUREMENT

125-4.1 Runway End Identifier Lights shall be measured by each system installed as a completed unit in place, ready for operation, and accepted by the RPR.

125-4.2 L-829 Ferroresonant Constant Current Regulator shall be measured by each L-829 CCR, one Instruction manual and one Operational and Maintenance manual (per CCR) installed and accepted as a completed unit, in place, ready for operation.

125-4.3 Miscellaneous Electrical Site Work shall be measured by lump sum for completion of pullbox cleaning and accepted by the RPR.

125-4.4 Removal and Demolish Existing REIL's shall be measured by each set as a completed unit in place and accepted by the RPR.

125-4.5 L-829 Ferroresonant Constant Current Regulator shall be measured by each L-829 CCR, one Instruction manual and one Operational and Maintenance manual (per CCR) installed and accepted as a completed unit, in place, ready for operation.

125-4.6 L-829 Ferroresonant Constant Current Regulator shall be measured by each L-829 CCR, one Instruction manual and one Operational and Maintenance manual (per CCR) installed and accepted as a completed unit, in place, ready for operation.

BASIS OF PAYMENT

125-5.1 Payment will be made at the Contract unit price for each complete runway end identification light (REIL) installed by the Contractor and accepted by the RPR. This payment will be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools and incidentals necessary to complete this item.

125-5.2 Payment will be made at the contract unit price for the completed total quantity of L-829 CCRs installed, in place by the Contractor, and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary for a complete and operational item.

125-5.3 Payment will be made at the contract unit price of lump sum for completion of miscellaneous electrical site work that is accepted by the RPR. This payment will be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools and incidentals necessary to complete this item.

125-5.4 Payment will be made at the contract unit price of each set for complete removal and demolish existing REIL's by the Contractor and accepted by the RPR. This payment will be full compensation for furnishing all materials and for all preparation, assembly and removal and backfill, and for all labor, equipment, tools and incidentals necessary to complete this item.

125-5.5 Payment will be made at the contract unit price for the completed total quantity of L-829 CCRs installed, in place by the Contractor, and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary for a complete and operational item.

125-5.6 Payment will be made at the contract unit price for the completed total quantity of L-829 CCRs installed, in place by the Contractor, and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary for a complete and operational item.

Payment will be made under:

Item L-125-5.1	LED L-849I (L), Style E, Runway End Identifier Light, Complete - Per Set
Item L-125-5.2	L-829, 4KW Ferroresonant Constant Current Regulator, 6.6A Output, 208V 1 Phase, 3 Step, Type I, Class I, Style 2 with Integral S-1 cut out and IRMS - Per Each
Item L-125-5.3	Miscellaneous Electrical Site Work – Per Lump Sum
Item L-125-5.4	Remove and Demolish Existing REIL's – Per Set
Item L-125-5.5	L-829, 20KW Ferroresonant Constant Current Regulator, 6.6A Output, 208V 1 Phase, 3 Step, Type I, Class I, Style 2 with Integral S-1 cut out and IRMS - Per Each
Item L-125-5.6	L-829, 30KW Ferroresonant Constant Current Regulator, 6.6A Output, 208V 1 Phase, 3 Step, Type I, Class I, Style 2 with Integral S-1 cut out and IRMS - Per Each
Item L-125-5.7	ALCMS Hardware Upgrades – Per Lump Sum

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Advisory Circulars (AC)

AC 150/5340-18	Standards for Airport Sign Systems
AC 150/5340-26	Maintenance of Airport Visual Aid Facilities
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-5	Circuit Selector Switch
AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-26	Specification for L-823 Plug and Receptacle, Cable Connectors
AC 150/5345-28	Precision Approach Path Indicator (PAPI) Systems
AC 150/5345-39	Specification for L-853, Runway and Taxiway Retroreflective Markers
AC 150/5345-42	Specification for Airport Light Bases, Transformer Housings, Junction Boxes, and Accessories
AC 150/5345-44	Specification for Runway and Taxiway Signs

AC 150/5345-46	Specification for Runway and Taxiway Light Fixtures
AC 150/5345-47	Specification for Series to Series Isolation Transformers for Airport Lighting Systems
AC 150/5345-51	Specification for Discharge-Type Flashing Light Equipment
AC 150/5345-53	Airport Lighting Equipment Certification Program
Engineering Brief (EB)	
EB No. 67	Light Sources Other than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures

END OF ITEM L-125

Item P-152 Excavation, Subgrade, and Embankment

DESCRIPTION

152-1.1 This item covers excavation, disposal, placement, and compaction of all materials within the limits of the work required to construct safety areas, runways, taxiways, aprons, and intermediate areas as well as other areas for drainage, building construction, parking, or other purposes in accordance with these specifications and in conformity to the dimensions and typical sections shown on the plans.

152-1.2 Classification. All material excavated shall be classified as defined below:

a. Unclassified excavation. Unclassified excavation shall consist of the excavation and disposal of all material, regardless of its nature.

152-1.3 Unsuitable excavation. Unsuitable material shall be disposed in designated waste areas as shown on the plans. Materials containing vegetable or organic matter, such as muck, peat, organic silt, or sod shall be considered unsuitable for use in embankment construction. Material suitable for topsoil may be used on the embankment slope when approved by the RPR.

CONSTRUCTION METHODS

152-2.1 General. Before beginning excavation, grading, and embankment operations in any area, the area shall be cleared or cleared and grubbed in accordance with Item P-151.

The suitability of material to be placed in embankments shall be subject to approval by the RPR. All unsuitable material shall be disposed of in waste areas as shown on the plans. All waste areas shall be graded to allow positive drainage of the area and adjacent areas. The surface elevation of waste areas shall be specified on the plans or approved by the RPR.

When the Contractor's excavating operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued and the RPR notified per Section 70, paragraph 70-20. At the direction of the RPR, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation will be paid for as extra work.

Areas outside the limits of the pavement areas where the top layer of soil has become compacted by hauling or other Contractor activities shall be scarified and disked to a depth of 4 inches to loosen and pulverize the soil. Stones or rock fragments larger than 4 inches in their greatest dimension will not be permitted in the top 6 inches of the subgrade.

If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures, the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the RPR, who shall arrange for their removal if necessary. The Contractor, at their own expense, shall satisfactorily repair or pay the cost of all damage to such facilities or structures that may result from any of the Contractor's operations during the period of the contract.

a. Blasting. Blasting shall not be allowed.

152-2.2 Excavation. No excavation shall be started until the work has been staked out by the Contractor and the RPR has obtained from the Contractor, the survey notes of the elevations and measurements of the ground surface. The Contractor and RPR shall agree that the original ground lines shown on the original topographic mapping are accurate, or agree to any adjustments made to the original ground lines.

All areas to be excavated shall be stripped of vegetation and topsoil. Topsoil shall be stockpiled for future use in areas designated on the plans or by the RPR. All suitable excavated material shall be used in the formation of embankment, subgrade, or other purposes as shown on the plans. All unsuitable material shall be disposed of as shown on the plans.

The grade shall be maintained so that the surface is well drained at all times.

When the volume of the excavation exceeds that required to construct the embankments to the grades as indicated on the plans, the excess shall be used to grade the areas of ultimate development or disposed as directed by the RPR. When the volume of excavation is not sufficient for constructing the embankments to the grades indicated, the deficiency shall be obtained from borrow areas.

a. Selective grading. When selective grading is indicated on the plans, the more suitable material designated by the RPR shall be used in constructing the embankment or in capping the pavement subgrade. If, at the time of excavation, it is not possible to place this material in its final location, it shall be stockpiled in approved areas until it can be placed. The more suitable material shall then be placed and compacted as specified. Selective grading shall be considered incidental to the work involved. The cost of stockpiling and placing the material shall be included in the various pay items of work involved.

b. Undercutting. Rock, shale, hardpan, loose rock, boulders, or other material unsatisfactory for safety areas, subgrades, roads, shoulders, or any areas intended for turf shall be excavated to a minimum depth of 12 inches below the subgrade or to the depth specified by the RPR. Muck, peat, matted roots, or other yielding material, unsatisfactory for subgrade foundation, shall be removed to the depth specified. Unsuitable materials shall be disposed off the airport. The cost is incidental to the duct bank, pullbox, and all other miscellaneous electrical equipment installation. The excavated area shall be backfilled with suitable material obtained from the grading operations or borrow areas and compacted to specified densities. The necessary backfill will constitute a part of the embankment.

c. Over-break. Over-break, including slides, is that portion of any material displaced or loosened beyond the finished work as planned or authorized by the RPR. All over-break shall be graded or removed by the Contractor and disposed of as directed by the RPR. The RPR shall determine if the displacement of such material was unavoidable and their own decision shall be final. Payment will not be made for the removal and disposal of over-break that the RPR determines as avoidable. Unavoidable over-break will be classified as "Unclassified Excavation."

d. Removal of utilities. The removal of existing structures and utilities required to permit the orderly progress of work will be accomplished by the Contractor as indicated on the plans. All existing foundations shall be excavated at least 2 feet below the top of subgrade or as indicated on the plans, and the material disposed of as directed by the RPR. All foundations thus excavated shall be backfilled with suitable material and compacted as specified for embankment or as shown on the plans.

152-2.3 Borrow excavation. Borrow areas are not required.

152-2.4 Drainage excavation. Drainage excavation shall consist of excavating drainage ditches including intercepting, inlet, or outlet ditches; or other types as shown on the plans. The work shall be performed in sequence with the other construction. Ditches shall be constructed prior to starting adjacent excavation operations. All satisfactory material shall be placed in embankment fills; unsuitable material shall be placed in designated waste areas or as directed by the RPR. All necessary work shall be performed true to final line, elevation, and cross-section. The Contractor shall maintain ditches constructed on the project to the required cross-section and shall keep them free of debris or obstructions until the project is accepted.

152-2.5 Preparation of cut areas or areas where existing pavement has been removed. In those areas on which a subbase or base course is to be placed, perform subgrade compaction as shown on the plans utilizing ASTM D1557. As used in this specification, "non-cohesive" shall mean those soils having a plasticity index (PI) of less than 3 as determined by ASTM D4318.

152-2.6 Preparation of embankment area. All sod and vegetative matter shall be removed from the surface upon which the embankment is to be placed. The cleared surface shall be broken up by plowing or scarifying to a minimum depth of 6 inches (150 mm) and shall then be compacted per paragraph 152-2.10.

Sloped surfaces steeper than one (1) vertical to four (4) horizontal shall be plowed, stepped, benched, or broken up so that the fill material will bond with the existing material. When the subgrade is part fill and part excavation or natural ground, the excavated or natural ground portion shall be scarified to a depth of 12 inches and compacted as specified for the adjacent fill.

No direct payment shall be made for the work performed under this section. The necessary clearing and grubbing and the quantity of excavation removed will be paid for under the respective items of work.

152-2.7 Control Strip. The first half-day of construction of subgrade and/or embankment shall be considered as a control strip for the Contractor to demonstrate, in the presence of the RPR, that the materials, equipment, and construction processes meet the requirements of this specification. The sequence and manner of rolling necessary to obtain specified density requirements shall be determined. The maximum compacted thickness may be increased to a maximum of 12 inches upon the Contractor's demonstration that approved equipment and operations will uniformly compact the lift to the specified density. The RPR must witness this demonstration and approve the lift thickness prior to full production.

Control strips that do not meet specification requirements shall be reworked, re-compacted, or removed and replaced at the Contractor's expense. Full operations shall not begin until the control strip has been accepted by the RPR. The Contractor shall use the same equipment, materials, and construction methods for the remainder of construction, unless adjustments made by the Contractor are approved in advance by the RPR.

152-2.8 Formation of embankments. The material shall be constructed in lifts as established in the control strip, but not less than 6 inches nor more than 12 inches of compacted thickness.

When more than one lift is required to establish the layer thickness shown on the plans, the construction procedure described here shall apply to each lift. No lift shall be covered by subsequent lifts until tests verify that compaction requirements have been met. The Contractor shall rework, re-compact and retest any material placed which does not meet the specifications.

The lifts shall be placed, to produce a soil structure as shown on the typical cross-section or as directed by the RPR. Materials such as brush, hedge, roots, stumps, grass and other organic matter, shall not be incorporated or buried in the embankment.

Earthwork operations shall be suspended at any time when satisfactory results cannot be obtained due to rain, freezing, or other unsatisfactory weather conditions in the field. Frozen material shall not be placed in the embankment nor shall embankment be placed upon frozen material. Material shall not be placed on surfaces that are muddy, frozen, or contain frost. The Contractor shall drag, blade, or slope the embankment to provide surface drainage at all times.

The material in each lift shall be within $\pm 2\%$ of optimum moisture content before rolling to obtain the prescribed compaction. The material shall be moistened or aerated as necessary to achieve a uniform moisture content throughout the lift. Natural drying may be accelerated by blending in dry material or manipulation alone to increase the rate of evaporation.

The Contractor shall make the necessary corrections and adjustments in methods, materials or moisture content to achieve the specified embankment density.

The Contractor will take samples of excavated materials which will be used in embankment for testing and develop a Moisture-Density Relations of Soils Report (Proctor) in accordance with D 1557. A new Proctor shall be developed for each soil type based on visual classification.

Density tests will be taken by the Contractor for every 3,000 square yards of compacted embankment for each lift which is required to be compacted, or other appropriate frequencies as determined by the RPR. When backfilling duct banks, testing frequency is in accordance to Item L-110-3.6.

If the material has greater than 30% retained on the 3/4-inch sieve, follow AASHTO T-180 Annex Correction of maximum dry density and optimum moisture for oversized particles.

Rolling operations shall be continued until the embankment is compacted to not less than 100% of maximum density for non-cohesive soils, and 95% of maximum density for cohesive soils as determined by ASTM D1557. Under all areas to be paved, the embankments shall be compacted as shown on the plans as determined by ASTM D1557. As used in this specification, "non-cohesive" shall mean those soils having a plasticity index (PI) of less than 3 as determined by ASTM D4318.

On all areas outside of the pavement areas, no compaction will be required on the top 4 inches which shall be prepared for a seedbed in accordance with Item T-901.

The in-place field density shall be determined in accordance with ASTM 6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material.

The machine shall be calibrated in accordance with ASTM D6938. The Contractor's laboratory shall perform all density tests in the RPR's presence and provide the test results upon completion to the RPR for acceptance. If the specified density is not attained, the area represented by the test or as designated by the RPR shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached.

Compaction areas shall be kept separate, and no lift shall be covered by another lift until the proper density is obtained.

During construction of the embankment, the Contractor shall route all construction equipment evenly over the entire width of the embankment as each lift is placed. Lift placement shall begin in the deepest portion of the embankment fill. As placement progresses, the lifts shall be constructed approximately parallel to the finished pavement grade line.

When rock, concrete pavement, asphalt pavement, and other embankment material are excavated at approximately the same time as the subgrade, the material shall be incorporated into the outer portion of the embankment and the subgrade material shall be incorporated under the future paved areas. Stones, fragmentary rock, and recycled pavement larger than 4 inches (100 mm) in their greatest dimensions will not be allowed in the top 12 inches (300 mm) of the subgrade. Rockfill shall be brought up in lifts as specified or as directed by the RPR and the finer material shall be used to fill the voids forming a dense, compact mass. Rock, cement concrete pavement, asphalt pavement, and other embankment material shall not be disposed of except at places and in the manner designated on the plans or by the RPR.

When the excavated material consists predominantly of rock fragments of such size that the material cannot be placed in lifts of the prescribed thickness without crushing, pulverizing or further breaking down the pieces, such material may be placed in the embankment as directed in lifts not exceeding 2 feet (60 cm) in thickness. Each lift shall be leveled and smoothed with suitable equipment by distribution of spalls and finer fragments of rock. The lift shall not be constructed above an elevation 4 feet (1.2 m) below the finished subgrade.

There will be no separate measurement of payment for compacted embankment. All costs incidental to placing in lifts, compacting, discing, watering, mixing, sloping, and other operations necessary for construction of embankments will be included in the contract price for excavation, borrow, or other items.

152-2.9 Proof rolling. Not Used.

152-2.10 Compaction requirements. The subgrade under areas to be paved shall be compacted to depths and percentages as shown on the plans as determined by ASTM D1557. The subgrade in areas outside the limits of the pavement areas shall be compacted to a depth of 12 inches and to a density of not less than 95 percent of the maximum density as determined by ASTM D698.

The material to be compacted shall be within $\pm 2\%$ of optimum moisture content before being rolled to obtain the prescribed compaction (except for expansive soils). When the material has greater than 30 percent retained on the $\frac{3}{4}$ inch sieve, follow the methods in ASTM D1557. Tests for moisture content and compaction will be taken at a minimum of **3,000** S.Y. of subgrade or as per Item L-110-3.6. All quality assurance testing shall be done by the Contractor's laboratory in the presence of the RPR, and density test results shall be furnished upon completion to the RPR for acceptance determination.

The in-place field density shall be determined in accordance with ASTM D6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938 within 12 months prior to its use on this contract. The gage shall be field standardized daily.

Maximum density refers to maximum dry density at optimum moisture content unless otherwise specified.

If the specified density is not attained, the entire lot shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached.

All cut-and-fill slopes shall be uniformly dressed to the slope, cross-section, and alignment shown on the plans or as directed by the RPR and the finished subgrade shall be maintained.

152-2.11 Finishing and protection of subgrade. Finishing and protection of the subgrade is incidental to this item. Grading and compacting of the subgrade shall be performed so that it will drain readily. All low areas, holes or depressions in the subgrade shall be brought to grade. Scarifying, blading, rolling and other methods shall be performed to provide a thoroughly compacted subgrade shaped to the lines and grades shown on the plans. All ruts or rough places that develop in the completed subgrade shall be graded, re-compacted, and retested. The Contractor shall protect the subgrade from damage and limit hauling over the finished subgrade to only traffic essential for construction purposes.

The Contractor shall maintain the completed course in satisfactory condition throughout placement of subsequent layers. No subbase, base, or surface course shall be placed on the subgrade until the subgrade has been accepted by the RPR.

152-2.12 Haul. All hauling will be considered a necessary and incidental part of the work. The Contractor shall include the cost in the contract unit price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work.

The Contractor's equipment shall not cause damage to any excavated surface, compacted lift or to the subgrade as a result of hauling operations. Any damage caused as a result of the Contractor's hauling operations shall be repaired at the Contractor's expense.

The Contractor shall be responsible for providing, maintaining and removing any haul roads or routes within or outside of the work area, and shall return the affected areas to their former condition, unless otherwise authorized in writing by the Owner. No separate payment will be made for any work or materials associated with providing, maintaining and removing haul roads or routes.

152-2.13 Surface Tolerances. In those areas on which a subbase or base course is to be placed, the surface shall be tested for smoothness and accuracy of grade and crown. Any portion lacking the required smoothness or failing in accuracy of grade or crown shall be scarified to a depth of at least 3 inches, reshaped and re-compacted to grade until the required smoothness and accuracy are obtained and approved by the RPR. The Contractor shall perform all final smoothness and grade checks in the presence of the RPR. Any deviation in surface tolerances shall be corrected by the Contractor at the Contractor's expense.

- a. **Smoothness.** The finished surface shall not vary more than $\pm \frac{1}{2}$ inch when tested with a 12-foot straightedge applied parallel with and at right angles to the centerline. The straightedge shall be moved continuously forward at half the length of the 12-foot (3.7-m) straightedge for the full length of each line on a 50-foot grid.
- b. **Grade.** The grade and crown shall be measured on a 50-foot grid and shall be within ± 0.05 feet of the specified grade.

On safety areas, turfed areas and other designated areas within the grading limits where no subbase or base is to be placed, grade shall not vary more than 0.10 feet from specified grade. Any deviation in excess of this amount shall be corrected by loosening, adding or removing materials, and reshaping.

152-2.14 Topsoil. Not Used.

METHOD OF MEASUREMENT

152-3.1 No separate measurement will be made for unclassified excavation, subgrade, and embankment. Unclassified excavation, subgrade, and embankment shall be considered necessary and incidental to the work of this Contract.

BASIS OF PAYMENT

152-4.1 No payment will be made separately or directly for unclassified excavation, subgrade, and embankment. Unclassified excavation, subgrade, and embankment shall be considered necessary and incidental to the work of this Contract.

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

American Association of State Highway and Transportation Officials (AASHTO)

AASHTO T-180 Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop

ASTM International (ASTM)

ASTM D698 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³))

ASTM D1556 Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method

ASTM D1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2700 kN-m/m³))

ASTM D6938 Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

Advisory Circulars (AC)

AC 150/5370-2 Operational Safety on Airports During Construction Software

Software

FAARFIELD – FAA Rigid and Flexible Iterative Elastic Layered Design

U.S. Department of Transportation

FAA RD-76-66 Design and Construction of Airport Pavements on Expansive Soils

END OF ITEM P-152

Item P-153 Controlled Low-Strength Material (CLSM)

DESCRIPTION

153-1.1 This item shall consist of furnishing, transporting, and placing a controlled low-strength material (CLSM) as flowable backfill in trenches or at other locations shown on the plans or as directed by the Resident Project Representative (RPR).

MATERIALS

153-2.1 Materials.

a. Cement. Cement shall conform to the requirements of ASTM **C150** Type II.

b. Fly ash. Fly ash shall conform to ASTM C618, Class C or F.

c. Fine aggregate (sand). Fine aggregate shall conform to the requirements of ASTM C33 except for aggregate gradation. Any aggregate gradation which produces the specified performance characteristics of the CLSM and meets the following requirements, will be accepted.

Sieve Size	Percent Passing by weight
3/4 inch	100
No. 200	0 - 12

d. Water. Water used in mixing or curing shall be from potable water sources. Other sources shall be tested in accordance with ASTM C1602 prior to use.

MIX DESIGN

153-3.1 Proportions. The Contractor shall submit, to the RPR, a mix design including the proportions and source of aggregate, fly ash, cement, water, and approved admixtures. No CLSM mixture shall be produced for payment until the RPR has given written approval of the proportions. The proportions shall be prepared by a laboratory and shall remain in effect for the duration of the project. The proportions shall establish a single percentage or weight for aggregate, fly ash, cement, water, and any admixtures proposed. Laboratory costs are incidental to this item.

a. Compressive strength. CLSM shall be designed to achieve a 28-day compressive strength of 100 to 200 psi when tested in accordance with ASTM D4832, with no significant strength gain after 28 days.

b. Consistency. Design CLSM to achieve a consistency that will produce an approximate 8-inch diameter circular-type spread without segregation. CLSM consistency shall be determined per ASTM D6103.

CONSTRUCTION METHODS

153-4.1 Placement.

a. Placement. CLSM may be placed by any reasonable means from the mixing unit into the space to be filled. Agitation is required during transportation and waiting time. Placement shall be performed so structures or pipes are not displaced from their final position and intrusion of CLSM into unwanted areas is avoided. The material shall be brought up uniformly to the fill line shown on the plans or as directed by the RPR. Each placement of CLSM shall be as continuous an operation as possible. If CLSM is placed in more than one lift, the base lift shall be free of surface water and loose foreign material prior to placement of the next lift.

b. Contractor Quality Control. The Contractor shall collect all batch tickets to verify the CLSM delivered to the project conforms to the mix design. The Contractor shall verify daily that the CLSM is

consistent with 153-3.1a and 153-3.1b. Adjustments shall be made as necessary to the proportions and materials as needed. The Contractor shall provide all batch tickets to the RPR.

c. Limitations of placement. CLSM shall not be placed on frozen ground. Mixing and placing may begin when the air or ground temperature is at least 35°F and rising. Mixing and placement shall stop when the air temperature is 40°F and falling or when the anticipated air or ground temperature will be 35°F or less in the 24-hour period following proposed placement. At the time of placement, CLSM shall have a temperature of at least 40°F.

153-4.2 Curing and protection

a. Curing. The air in contact with the CLSM shall be maintained at temperatures above freezing for a minimum of 72 hours. If the CLSM is subjected to temperatures below 32°F, the material may be rejected by the RPR if damage to the material is observed.

b. Protection. The CLSM shall not be subject to loads and shall remain undisturbed by construction activities for a period of 48 hours or until a compressive strength of 15 psi is obtained. The Contractor shall be responsible for providing evidence to the RPR that the material has reached the desired strength. Acceptable evidence shall be based upon compressive tests made in accordance with paragraph 153-3.1a.

153-4.3 Quality Assurance (QA) Acceptance. CLSM QA acceptance shall be based upon batch tickets provided by the Contractor to the RPR to confirm that the delivered material conforms to the mix design.

METHOD OF MEASUREMENT

153-5.1 Measurement.

No separate measurement for payment shall be made for controlled low strength material (CLSM). CLSM shall be considered necessary and incidental to the work of this Contract.

BASIS OF PAYMENT

153-6.1 Payment.

No payment will be made separately or directly for controlled low strength material (CLSM). CLSM shall be considered necessary and incidental to the work of this Contract.

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM C33	Standard Specification for Concrete Aggregates
ASTM C150	Standard Specification for Portland Cement
ASTM C618	Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
ASTM C595	Standard Specification for Blended Hydraulic Cements
ASTM C1602	Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete
ASTM D4832	Standard Test Method for Preparation and Testing of Controlled Low-Strength Material (CLSM) Test Cylinders
ASTM D6103	Flow Consistency of Controlled Low Strength Material (CLSM)

END OF ITEM P-153

Item P-610 Concrete for Miscellaneous Structures

DESCRIPTION

610-1.1 This item shall consist of concrete and reinforcement, as shown on the plans, prepared and constructed in accordance with these specifications. This specification shall be used for all concrete other than airfield pavement which are cast-in-place.

MATERIALS

610-2.1 General. Only approved materials, conforming to the requirements of these specifications, shall be used in the work. Materials may be subject to inspection and tests at any time during their preparation or use. The source of all materials shall be approved by the Resident Project Representative (RPR) before delivery or use in the work. Representative preliminary samples of the materials shall be submitted by the Contractor, when required, for examination and test. Materials shall be stored and handled to ensure preservation of their quality and fitness for use and shall be located to facilitate prompt inspection. All equipment for handling and transporting materials and concrete must be clean before any material or concrete is placed in them.

The use of pit-run aggregates shall not be permitted unless the pit-run aggregate has been screened and washed, and all fine and coarse aggregates stored separately and kept clean. The mixing of different aggregates from different sources in one storage stockpile or alternating batches of different aggregates shall not be permitted.

a. Reactivity. Fine aggregate and coarse aggregates to be used in all concrete shall have been tested separately within six months of the project in accordance with ASTM C1260. Test results shall be submitted to the RPR. The aggregate shall be considered innocuous if the expansion of test specimens, tested in accordance with ASTM C1260, does not exceed 0.08% at 14 days (16 days from casting). If the expansion of either or both test specimen is greater than 0.08% at 14 days, but less than 0.20%, a minimum of 25% of Type F fly ash, or between 40% and 55% of slag cement shall be used in the concrete mix. If expansion of either the coarse or fine aggregate exceeds 0.08% at 14 days, limit the alkali of the concrete to be less than or equal to 3.0 lb per cubic yard (1.8 kg per cubic meter), calculated in accordance with EB 106.

If the expansion is greater than 0.20%, the aggregates shall not be used, and test results for other aggregates must be submitted for evaluation; or aggregates that meet P-501 reactivity test requirements may be utilized.

610-2.2 Coarse aggregate. The coarse aggregate for concrete shall meet the requirements of ASTM C33 and the requirements of Table 4, Class Designation 5S; and the grading requirements shown below, as required for the project.

Coarse Aggregate Grading Requirements

Maximum Aggregate Size	ASTM C33, Table 3 Grading Requirements (Size No.)
1 ½ inch (37.5 mm)	467 or 4 and 67
1 inch (25 mm)	57
¾ inch (19 mm)	67
½ inch (12.5 mm)	7

610-2.2.1 Coarse Aggregate susceptibility to durability (D) cracking. Not used.

610-2.3 Fine aggregate. The fine aggregate for concrete shall meet all fine aggregate requirements of ASTM C33.

610-2.4 Cement. Cement shall conform to the requirements of C150 Type II.

610-2.5 Cementitious materials.

a. Fly ash. Fly ash shall meet the requirements of ASTM C618, with the exception of loss of ignition, where the maximum shall be less than 6%. Fly ash shall have a Calcium Oxide (CaO) content of less than 15% and a total available alkali content less than 3% per ASTM C311. Fly ash produced in furnace operations using liming materials or soda ash (sodium carbonate) as an additive shall not be acceptable. The Contractor shall furnish the previous three most recent, consecutive ASTM C618 reports for each source of fly ash proposed in the concrete mix, and shall furnish each additional report as they become available during the project. The reports can be used for acceptance or the material may be tested independently by the RPR.

b. Slag cement (ground granulated blast furnace (GGBF)). Slag cement shall conform to ASTM C989, Grade 100 or Grade 120. Slag cement shall be used only at a rate between 25% and 55% of the total cementitious material by mass.

610-2.6 Water. Water used in mixing or curing shall be from potable water sources. Other sources shall be tested in accordance with ASTM C1602 prior to use.

610-2.7 Admixtures. The Contractor shall submit certificates indicating that the material to be furnished meets all of the requirements indicated below. In addition, the RPR may require the Contractor to submit complete test data from an approved laboratory showing that the material to be furnished meets all of the requirements of the cited specifications. Subsequent tests may be made of samples taken by the RPR from the supply of the material being furnished or proposed for use on the work to determine whether the admixture is uniform in quality with that approved.

a. Air-entraining admixtures. Air-entraining admixtures shall meet the requirements of ASTM C260 and shall consistently entrain the air content in the specified ranges under field conditions. The air-entrainment agent and any water reducer admixture shall be compatible.

b. Water-reducing admixtures. Water-reducing admixture shall meet the requirements of ASTM C494, Type A, B, or D. ASTM C494, Type F and G high range water reducing admixtures and ASTM C1017 flowable admixtures shall not be used.

c. Other chemical admixtures. The use of set retarding and set-accelerating admixtures shall be approved by the RPR. Retarding shall meet the requirements of ASTM C494, Type A, B, or D and set-accelerating shall meet the requirements of ASTM C494, Type C. Calcium chloride and admixtures containing calcium chloride shall not be used.

610-2.8 Premolded joint material. Premolded joint material for expansion joints shall meet the requirements of ASTM D1751.

610-2.9 Joint filler. The filler for joints shall meet the requirements of Item P-605, unless otherwise specified.

610-2.10 Steel reinforcement. Reinforcing shall consist of A615 conforming to the requirements of A1064.

610-2.11 Materials for curing concrete. Curing materials shall conform to ASTM C309.

CONSTRUCTION METHODS

610-3.1 General. The Contractor shall furnish all labor, materials, and services necessary for, and incidental to, the completion of all work as shown on the drawings and specified here. All machinery and equipment used by the Contractor on the work, shall be of sufficient size to meet the requirements of the work. All work shall be subject to the inspection and approval of the RPR.

610-3.2 Concrete Mixture. The concrete shall develop a compressive strength of 4000 psi in 28 days as determined by test cylinders made in accordance with ASTM C31 and tested in accordance with ASTM

C39. The concrete shall contain not less than 470 pounds of cementitious material per cubic yard. The water cementitious ratio shall not exceed 0.45 by weight. The air content of the concrete shall be 5% +/- 1.2% as determined by ASTM C231 and shall have a slump of not more than 4 inches as determined by ASTM C143.

610-3.3 Mixing. Concrete may be mixed at the construction site, at a central point, or wholly or in part in truck mixers. The concrete shall be mixed and delivered in accordance with the requirements of ASTM C94 or ASTM C685.

The concrete shall be mixed only in quantities required for immediate use. Concrete shall not be mixed while the air temperature is below 40°F without the RPRs approval. If approval is granted for mixing under such conditions, aggregates or water, or both, shall be heated and the concrete shall be placed at a temperature not less than 50°F nor more than 100°F. The Contractor shall be held responsible for any defective work, resulting from freezing or injury in any manner during placing and curing, and shall replace such work at his expense.

Retempering of concrete by adding water or any other material is not permitted.

The rate of delivery of concrete to the job shall be sufficient to allow uninterrupted placement of the concrete.

610-3.4 Forms. Concrete shall not be placed until all the forms and reinforcements have been inspected and approved by the RPR. Forms shall be of suitable material and shall be of the type, size, shape, quality, and strength to build the structure as shown on the plans. The forms shall be true to line and grade and shall be mortar-tight and sufficiently rigid to prevent displacement and sagging between supports. The surfaces of forms shall be smooth and free from irregularities, dents, sags, and holes. The Contractor shall be responsible for their adequacy.

The internal form ties shall be arranged so no metal will show in the concrete surface or discolor the surface when exposed to weathering when the forms are removed. All forms shall be wetted with water or with a non-staining mineral oil, which shall be applied immediately before the concrete is placed. Forms shall be constructed so they can be removed without injuring the concrete or concrete surface.

610-3.5 Placing reinforcement. All reinforcement shall be accurately placed, as shown on the plans, and shall be firmly held in position during concrete placement. Bars shall be fastened together at intersections. The reinforcement shall be supported by approved metal chairs. Shop drawings, lists, and bending details shall be supplied by the Contractor when required.

610-3.6 Embedded items. Before placing concrete, all embedded items shall be firmly and securely fastened in place as indicated. All embedded items shall be clean and free from coating, rust, scale, oil, or any foreign matter. The concrete shall be spaded and consolidated around and against embedded items. The embedding of wood shall not be allowed.

610-3.7 Concrete Consistency. The Contractor shall monitor the consistency of the concrete delivered to the project site; collect each batch ticket; check temperature; and perform slump tests on each truck at the project site in accordance with ASTM C143.

610-3.8 Placing concrete. All concrete shall be placed during daylight hours, unless otherwise approved. The concrete shall not be placed until the depth and condition of foundations, the adequacy of forms and falsework, and the placing of the steel reinforcing have been approved by the RPR. Concrete shall be placed as soon as practical after mixing, but in no case later than one (1) hour after water has been added to the mix. The method and manner of placing shall avoid segregation and displacement of the reinforcement. Troughs, pipes, and chutes shall be used as an aid in placing concrete when necessary. The concrete shall not be dropped from a height of more than 5 feet. Concrete shall be deposited as nearly as practical in its final position to avoid segregation due to rehandling or flowing. Do not subject concrete to procedures which cause segregation. Concrete shall be placed on clean, damp surfaces, free from running water, or on a properly consolidated soil foundation.

610-3.9 Vibration. Vibration shall follow the guidelines in American Concrete Institute (ACI) Committee 309R, Guide for Consolidation of Concrete.

610-3.10 Joints. Joints shall be constructed as indicated on the plans.

610-3.11 Finishing. All exposed concrete surfaces shall be true, smooth, and free from open or rough areas, depressions, or projections. All concrete horizontal plane surfaces shall be brought flush to the proper elevation with the finished top surface struck-off with a straightedge and floated.

610-3.12 Curing and protection. All concrete shall be properly cured in accordance with the recommendations in American Concrete Institute (ACI) 308R, Guide to External Curing of Concrete. The concrete shall be protected from damage until project acceptance.

610-3.13 Cold weather placing. When concrete is placed at temperatures below 40°F, follow the cold weather concreting recommendations found in ACI 306R, Cold Weather Concreting.

610-3.14 Hot weather placing. When concrete is placed in hot weather greater than 85°F, follow the hot weather concreting recommendations found in ACI 305R, Hot Weather Concreting.

QUALITY ASSURANCE (QA)

610-4.1 Quality Assurance sampling and testing. Concrete for each day's placement will be accepted on the basis of the compressive strength specified in paragraph 610-3.2. The RPR will sample the concrete in accordance with ASTM C172; test the slump in accordance with ASTM C143; test air content in accordance with ASTM C231; make and cure compressive strength specimens in accordance with ASTM C31; and test in accordance with ASTM C39. The QA testing agency will meet the requirements of ASTM C1077.

The Contractor shall provide adequate facilities for the initial curing of cylinders.

610-4.2 Defective work. Any defective work that cannot be satisfactorily repaired as determined by the RPR, shall be removed and replaced at the Contractor's expense. Defective work includes, but is not limited to, uneven dimensions, honeycombing and other voids on the surface or edges of the concrete.

METHOD OF MEASUREMENT

610-5.1 Concrete shall be considered incidental and no separate measurement shall be made.

BASIS OF PAYMENT

610-6.1 Concrete shall be considered incidental to the work performed and no separate payment shall be made. This price shall be full compensation for furnishing all materials including reinforcement and embedded items and for all preparation, delivery, installation, and curing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM A184 Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement

ASTM A615 Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement

ASTM A1064 Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete

ASTM C31 Standard Practice for Making and Curing Concrete Test Specimens in the Field

ASTM C33 Standard Specification for Concrete Aggregates

ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C94	Standard Specification for Ready-Mixed Concrete
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM C114	Standard Test Methods for Chemical Analysis of Hydraulic Cement
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
ASTM C150	Standard Specification for Portland Cement
ASTM C171	Standard Specification for Sheet Materials for Curing Concrete
ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete
ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C260	Standard Specification for Air-Entraining Admixtures for Concrete
ASTM C309	Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C311	Standard Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland-Cement Concrete
ASTM C494	Standard Specification for Chemical Admixtures for Concrete
ASTM C618	Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
ASTM C666	Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
ASTM C685	Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing
ASTM C989	Standard Specification for Slag Cement for Use in Concrete and Mortars
ASTM C1017	Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete
ASTM C1077	Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
ASTM C1157	Standard Performance Specification for Hydraulic Cement
ASTM C1260	Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method) ASTM C1365 Standard Test Method for Determination of the Proportion of Phases in Portland Cement and Portland-Cement Clinker Using X-Ray Powder Diffraction Analysis
ASTM C1365	Standard Test Method for Determination of the Proportion of Phases in Portland Cement and Portland-Cement Clinker Using X-Ray Powder Diffraction Analysis
ASTM C1602	Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete
ASTM D1751	Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Asphalt Types)

American Concrete Institute (ACI)

ACI 305R	Hot Weather Concreting
ACI 306R	Cold Weather Concreting
ACI 308R	Guide to External Curing of Concrete
ACI 309R	Guide for Consolidation of Concrete

END OF ITEM P-610

NOT FOR BID

Item T-901 Seeding

DESCRIPTION

901-1.1 This item shall consist of soil preparation and seeding the areas shown on the plans or as directed by the RPR in accordance with these specifications.

MATERIALS

901-2.1 Seed. The species and application rates of grass, legume, and cover-crop seed furnished shall be those stipulated herein. Seed shall conform to the requirements of Federal Specification JJJ-S-181, Federal Specification, Seeds, Agricultural.

Seed shall be furnished separately or in mixtures in standard containers labeled in conformance with the Agricultural Marketing Service (AMS) Seed Act and applicable state seed laws with the seed name, lot number, net weight, percentages of purity and of germination and hard seed, and percentage of maximum weed seed content clearly marked for each kind of seed. The Contractor shall furnish the RPR duplicate signed copies of a statement by the vendor certifying that each lot of seed has been tested by a recognized laboratory for seed testing within six (6) months of date of delivery. This statement shall include: name and address of laboratory, date of test, lot number for each kind of seed, and the results of tests as to name, percentages of purity and of germination, and percentage of weed content for each kind of seed furnished, and, in case of a mixture, the proportions of each kind of seed. Wet, moldy, or otherwise damaged seed will be rejected.

Seeds shall be applied as follows:

Seed Properties and Rate of Application

Seed	Min % *PLS = Seed Purity x Germination Rate	Rate of App lb/acre (or lb/1,000 S.F.)
Mix 1: S&S Seeds "Basic Native Erosion Control Mix": Bromus carinatus "Cucamonga" (Cucamonga brome), Festuca microstachys (small fescue), Trifolium ciliolatum (tree clover)	87.3	32 lbs
Mix 2: Or pre-approved alternate erosion control seed mix	as listed	as required

*PLS (Pure Live Seed)

Seeding shall be performed during the period between **October** and **April inclusive**, unless otherwise approved by the RPR.

901-2.2 Lime. Not required.

901-2.3 Fertilizer. Not required.

901-2.4 Soil for repairs. The soil for fill and topsoiling of areas to be repaired shall be at least of equal quality to that which exists in areas adjacent to the area to be repaired. The soil shall be relatively free from large stones, roots, stumps, or other materials that will interfere with subsequent sowing of seed, compacting, and establishing turf, and shall be approved by the RPR before being placed.

CONSTRUCTION METHODS

901-3.1 Advance preparation and cleanup. After grading of areas has been completed and before applying fertilizer and ground limestone, areas to be seeded shall be raked or otherwise cleared of stones larger than 2 inches in any diameter, sticks, stumps, and other debris that might interfere with sowing of

seed, growth of grasses, or subsequent maintenance of grass-covered areas. If any damage by erosion or other causes has occurred after the completion of grading and before beginning the application of fertilizer and ground limestone, the Contractor shall repair such damage include filling gullies, smoothing irregularities, and repairing other incidental damage.

An area to be seeded shall be considered a satisfactory seedbed without additional treatment if it has recently been thoroughly loosened and worked to a depth of not less than 5 inches as a result of grading operations and, if immediately prior to seeding, the top 3 inches of soil is loose, friable, reasonably free from large clods, rocks, large roots, or other undesirable matter, and if shaped to the required grade.

When the area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, any grass and weeds shall first be cut or otherwise satisfactorily disposed of, and the soil then scarified or otherwise loosened to a depth not less than 5 inches. Clods shall be broken and the top 3 inches of soil shall be worked into a satisfactory seedbed by discing, or by use of cultipackers, rollers, drags, harrows, or other appropriate means.

901-3.2 Dry application method.

a. Liming. Not required.

b. Fertilizing. Not required.

c. Seeding. Grass seed shall be sown at the rate specified in paragraph 901-2.1 immediately after fertilizing. The fertilizer and seed shall be raked within the depth range stated in the special provisions. Seeds of legumes, either alone or in mixtures, shall be inoculated before mixing or sowing, in accordance with the instructions of the manufacturer of the inoculant. When seeding is required at other than the seasons shown on the plans or in the special provisions, a cover crop shall be sown by the same methods required for grass and legume seeding.

d. Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted by means of an approved lawn roller, weighing 40 to 65 pounds per foot of width for clay soil (or any soil having a tendency to pack), and weighing 150 to 200 pounds per foot of width for sandy or light soils.

901-3.3 Wet application method.

a. General. The Contractor may elect to apply seed and fertilizer (and lime, if required) by spraying them on the previously prepared seedbed in the form of an aqueous mixture and by using the methods and equipment described herein. The rates of application shall be as specified in the special provisions.

b. Spraying equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge calibrated to read in increments not larger than 50 gallons over the entire range of the tank capacity, mounted so as to be visible to the nozzle operator. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The unit shall also be equipped with a pressure pump capable of delivering 100 gallons per minute at a pressure of 100 lb / sq inches. The pump shall be mounted in a line that will recirculate the mixture through the tank whenever it is not being sprayed from the nozzle. All pump passages and pipe lines shall be capable of providing clearance for 5/8 inch solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. There shall be an indicating pressure gauge connected and mounted immediately at the back of the nozzle.

The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There shall be a quick-acting, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture delivered to the nozzle. At least three different types of nozzles shall be supplied so that mixtures may be properly sprayed over distance varying from 20 to 100 feet. One shall be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For case of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means of quick-release couplings.

In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet in length shall be provided to which the nozzles may be connected.

c. Mixtures. Lime, if required, shall be applied separately, in the quantity specified, prior to the fertilizing and seeding operations. Not more than 220 pounds of lime shall be added to and mixed with each 100 gallons of water. Seed and fertilizer shall be mixed together in the relative proportions specified, but not more than a total of 220 pounds of these combined solids shall be added to and mixed with each 100 gallons of water.

All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. The Contractor shall identify to the RPR all sources of water at least two (2) weeks prior to use. The RPR may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source that is disapproved by the RPR following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within two (2) hours from the time they were mixed or they shall be wasted and disposed of at approved locations.

d. Spraying. Lime, if required, shall be sprayed only upon previously prepared seedbeds. After the applied lime mixture has dried, the lime shall be worked into the top 3 inches, after which the seedbed shall again be properly graded and dressed to a smooth finish.

Mixtures of seed and fertilizer shall only be sprayed upon previously prepared seedbeds on which the lime, if required, shall already have been worked in. The mixtures shall be applied by means of a high-pressure spray that shall always be directed upward into the air so that the mixtures will fall to the ground like rain in a uniform spray. Nozzles or sprays shall never be directed toward the ground in such a manner as might produce erosion or runoff.

Particular care shall be exercised to ensure that the application is made uniformly and at the prescribed rate and to guard against misses and overlapped areas. Proper predetermined quantities of the mixture in accordance with specifications shall be used to cover specified sections of known area.

Checks on the rate and uniformity of application may be made by observing the degree of wetting of the ground or by distributing test sheets of paper or pans over the area at intervals and observing the quantity of material deposited thereon.

On surfaces that are to be mulched as indicated by the plans or designated by the RPR, seed and fertilizer applied by the spray method need not be raked into the soil or rolled. However, on surfaces on which mulch is not to be used, the raking and rolling operations will be required after the soil has dried.

901-3.4 Maintenance of seeded areas. The Contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the RPR. Surfaces gullied or otherwise damaged following seeding shall be repaired by regrading and reseeding as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

When either the dry or wet application method outlined above is used for work done out of season, it will be required that the Contractor establish a good stand of grass of uniform color and density to the satisfaction of the RPR. A grass stand shall be considered adequate when bare spots are one square foot or less, randomly dispersed, and do not exceed 3% of the area seeded.

METHOD OF MEASUREMENT

901-4.1 No separate measurement for payment shall be made for seeding. Seeding shall be considered necessary and incidental to the work of this Contract.

BASIS OF PAYMENT

901-5.1 No payment will be made separately or directly for seeding. Seeding shall be considered necessary and incidental to the work of this Contract.

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM C602 Standard Specification for Agricultural Liming Materials

Federal Specifications (FED SPEC)

FED SPEC JJJ-S-181, Federal Specification, Seeds, Agricultural

Advisory Circulars (AC)

AC 150/5200-33 Hazardous Wildlife Attractants on or Near Airports

FAA/United States Department of Agriculture

Wildlife Hazard Management at Airports, A Manual for Airport Personnel

END OF ITEM T-901

DIVISION VI

Part 1 – County General Conditions

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NOT FOR BID

PFMD – Project Management – General Conditions - 8/16/22

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NOT FOR BID

1 GENERAL PROVISIONS

1.1 Basic Definitions

1.1.1 Acceleration Proposal Request. County's written request to Contractor to submit an itemized proposal for Extraordinary Measures in order to achieve early completion of all or a portion of the Work when the need for such measures is not due to the fault of the Contractor.

1.1.2 Addenda. The Addenda or Addendum consist of the written clarifications of the Bid Documents issued by the County prior to the execution of the Contract.

1.1.3 Applicable Law. State, federal and local laws, statutes, ordinances, building codes, rules and regulations relating to the Work.

1.1.4 Architect. – The firm hired by the County to design the Project.

1.1.5 As-Builts. The Contractor's daily, current and complete on-site set of Plans and Specifications showing all changes, modifications and revisions performed during the progress of the Project construction.

1.1.6 Chief of Project Management. The Chief of Project Management of the Project and Facilities Management Department – Project Management.

1.1.7 Board. The Board of Supervisors for San Bernardino County.

1.1.8 Bid Documents. The documents contained in the bid packages including, but not limited to, advertisement for bids, instructions to bidders, bid proposal, non-collusion declaration, sample standard contract, contractor's affidavit and final release, sample bond forms, State wage determinations, general conditions, special conditions, technical specifications and Project drawings/plans.

1.1.9 Change Order. A Change Order is a written document prepared by the County reflecting the agreement between the County and Contractor for: a change in the terms or conditions of the Contract, if any; a specific Scope Change in the Work; the amount of the adjustment, if any, in the Contract Sum; and the extent of the adjustment, if any, in the Contract Time. The Change Order must be signed by an authorized representative of the County and Contractor.

1.1.10 Change Order Request (COR). As more specifically described herein below, a Change Order Request is a written document originated by the Contractor, which describes an instruction(s) issued by the County after the effective date of the Contract, which Contractor believes to be a Scope Change that may result in changes to the Contract Sum or Contract Time or, which describes the need for or desirability of a change in the Work proposed by Contractor.

1.1.11 Construction Change Directive. A Construction Change Directive is a unilateral written order prepared and signed by the County, directing Contractor to perform a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both.

1.1.12 Contract. The Contract Documents form the Contract ("Contract" or "Agreement").

1.1.13 Contract Documents. The Contract Documents consist of the documents enumerated as such in the Contract between County and Contractor, including, but not limited to, all Addenda issued prior to and Modifications issued after the effective date of the Contract, Plans/drawings, Specifications, request for qualifications, instructions to bidders, general conditions, special conditions and bonds.

1.1.14 Contract Sum. The term “Contract Sum” means the amount of compensation stated in the Contract for the performance of the Work. The Contract Sum may be adjusted only by Change Order, Construction Change Directive, or written amendment to the Contract.

1.1.15 Contractor. The individual, partnership, corporation, joint venture, or other legal entity entering into the Contract with the County to perform the Work.

1.1.16 County. San Bernardino County.

1.1.17 Date of Commencement. The date for commencement of the Work fixed by County in a Notice to Proceed to Contractor.

1.1.18 Day(s). The terms “day” or “days” mean calendar days unless otherwise specifically designated in the Contract Documents. The term “Work Day” or “Working Day” shall mean any calendar day except Saturdays, Sundays and County recognized legal holidays.

1.1.19 Defective Work. Any or all of the Work, which is unsatisfactory, faulty, omitted, incomplete or deficient, in material, workmanship or operation, or which does not conform to the requirements of the Contract Documents, directives of the County, applicable code requirements, or the requirements of any inspection, reference standard, test, or approval specified in the Contract Documents.

1.1.20 Department. The San Bernardino County Project and Facilities Management Department.

1.1.21 Director. The Director of the Project and Facilities Management Department.

1.1.22 Division. The San Bernardino County Project and Facilities Management Department – Project Management. The Project Management is represented by the Director or Chief of Project Management.

1.1.23 Extraordinary Measures. Measures implemented by Contractor at County’s direction to expedite the progress of construction of all or a portion of the Work, including, without limitation, (i) working additional shifts or overtime, (ii) supplying additional manpower, equipment, and facilities, and (iii) submitting a recovery schedule for resequencing performance of the Work or other similar measures, as more specifically described in Paragraph 2.8.

1.1.24 Final Completion. The term Final Completion is the date, evidenced by the County’s approval of Contractor’s Final Application for Payment, when the Work has been completed and the requirements for Project closeout set forth in the Contract Documents including, but not limited to, those set forth in Paragraph 9.8 below, have been satisfactorily completed. May be demonstrated by the recording of a Notice of Completion by the County.

1.1.25 Final Payment. County’s payment of the Contract Sum due to Contractor for the entire Work, less only the sums which County is specifically allowed to withhold under the terms of the Contract Documents and Applicable Law.

1.1.26 Modifications. A Modification is (i) a written amendment to the Contract signed by duly authorized representatives of the Parties, (ii) a Change Order, or (iii) a Construction Change Directive.

1.1.27 Notice of Completion. Document that is submitted by the County to the County Recorder for filing and recordation when all Work called for in the Construction Documents has been completed.

1.1.28 Notice to Proceed. The Notice to Proceed is a document issued by the County fixing the Date of Commencement for the Work. The Contract Time for Contractor's performance of the Work is measured in calendar days (not Work Days).

1.1.29 Owner. The San Bernardino County or its duly authorized representative.

1.1.30 Parties. The County and Contractor may be referred to collectively in the Contract Documents from time to time as the Parties.

1.1.31 Plans/Drawings. The Drawings, profiles, cross-sections, working drawings, and supplemental drawings or reproductions thereof, reviewed by the County or its authorized agent, which show the locations, character, dimensions, or details of the Work.

1.1.32 Project. The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the County or by Separate Contractors.

1.1.33 Project Manager. County's Project Manager, identified by County in writing, is the County's Project Representative, who interprets and defines the County's policies, renders decisions with respect to Contractor's performance of the Work, approves Contractor's Applications for Payment, reviews and approves Contractor's schedules and submittals, reviews and approves Change Order Requests and Change Orders and Construction Change Directives, reviews all quantity calculations related to pay quantities, reviews and approves changes in the Contract Time, concurs in any defective Work notification, and reviews and determines Substantial Completion of the Work and Final Completion of the Work. The extent and limits of the authority of any designee of the County's Project Manager shall be set forth in writing. Contractor shall be entitled to rely on the decisions and information provided by such written designee subject to the limitations of authority set forth in writing. All correspondence and electronic communication shall flow through the Project Manager. The Project Manager does not have the authority to approve a Change Order, written amendment to the Contract or Change Order Directive on behalf of the County. Contractor acknowledges that all Change Orders, Change Order Requests, Construction Change Directives, and amendments to the written Contract require the approval of the Director, or his/her designee, and may also require the approval of the Board.

1.1.34 Project Representative. Those individuals designated by the Parties in writing with authority to render decisions in connection with the Work and the Contract.

1.1.35 Scope Change. A Scope Change is Work that is not reasonably inferable from the Contract Documents upon which the Contract Sum is based, by a Contractor with the skill, experience, and expertise necessary for the proper, timely, and orderly completion of the Work, and is (i) materially inconsistent with, or (ii) a material change in the quantity, quality, or other substantial deviation in, the Contract Documents upon which the Contract Sum is based; and are necessary to correct an error, omission or defect in the Contract Documents, which cannot reasonably be corrected in the construction process.

1.1.36 Separate Contractors. The term Separate Contractors means licensed contractors performing a portion of the Project under separate contracts with the County.

1.1.37 Site. The physical area designated in the Contract Documents for Contractor's performance of the Work.

1.1.38 Specifications. The portion of the Contract Documents consisting of the written requirements for labor, materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services, including all Work and services defined in the Standard specifications, reference specifications, technical specifications, special provisions, General Conditions, and specifications in supplemental agreements between the County and Contractor.

1.1.38.1 Article, Paragraph, and Subparagraph titles and other identifications of subject matter in the Specifications are intended as an aid in locating and recognizing the various requirements in the Specifications. Except where the titling forms a part of the text, such as beginning words of a sentence or where the title establishes the subject, the titles are subordinate to and do not define, limit, or restrict the Specification text. Underlining or capitalizing of any words in the text does not signify or mean that such words convey special or unique meanings having a precedence over any other part of the Contract Documents. Specification text shall govern over titling and shall be understood to be and interpreted as a whole. The listings of various Sections of the Specifications are for convenience only and do not control the Contractor in dividing the Work among the subcontractors or establish the extent of the Work to be performed or provided by any Subcontractor or trade. **Contractor is solely responsible for providing the complete Work without respect to where or how the various parts of the Work may be indicated or specified.**

1.1.39 Subcontractor. A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the Site. The term "Subcontractor" does not include a Separate Contractor or subcontractors of a Separate Contractor.

1.1.40 Sub-subcontractor. A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the Site.

1.1.41 Substantial Completion. Substantial Completion is defined to mean the state in the progress of the Work when the Work is sufficiently complete in accordance with the Contract Documents as determined by the County so that the County can occupy and utilize the Work for its intended use and as further defined in the Contract.

1.1.42 Work. The term "Work" means the construction and other services required by, and reasonably inferable from, the Contract Documents as amended by Contract Modifications, whether completed or partially completed, and includes all labor, materials, equipment, tools, and services provided or to be provided by Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project, and includes products purchased by Contractor from third parties, and thereafter sold to County by Contractor.

1.1.43 Written Amendment to Contract – An amendment to the Contract which may change the Contract Sum or Contract Time, as necessary, due to unforeseen circumstances at the Project, additional Work required as a result of changes in Applicable Laws, or other appropriate facts necessitating a Contract amendment.

1.2 Correlation and Intent of the Contract Documents

1.2.1 Complementary Documents. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. All Work mentioned or indicated in the Contract Documents, and all Work reasonably inferable from them, shall be performed by the Contractor as part of the Contract unless it is specifically indicated in the Contract Documents that such work is to be done by others.

1.2.2 Order of Precedence. In the event of conflict between any of the Contract Documents the provision placing a more stringent requirement on the Contractor shall prevail. The Contractor shall provide the better quality or greater quantity of Work and/or materials unless otherwise directed by County in writing. In the event none of the Contract Documents place a more stringent requirement or greater burden on the Contractor, the controlling provision shall be that which is found in the document with higher precedence. In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following order of precedence, with "(1)" being the highest: **Order of Precedence is as defined in Division III.**

1.2.2.1 Nothing herein shall relieve the Contractor of its obligation to notify the County of any inconsistencies in the Contract Documents. Should it appear that the Work to be done or any of the matters relative thereto are not sufficiently detailed or explained in the Contract Documents, the Contractor shall apply to the County in writing for such further written explanations as may be necessary.

1.2.2.2 In the case of conflict or inconsistency in the Contract Documents, the conflict or inconsistency must be brought to the attention of the County for written clarification obtained from the County before proceeding with the Work affected by the conflict or inconsistencies. Failure to obtain such written clarification from the County will constitute waiver of any claim by Contractor related to such conflict or inconsistency.

1.2.2.3 All Work shall conform to the Contract Documents. No change therefrom shall be made without review and written acceptance by County.

1.2.3 Organization. Organization of the Specifications into divisions, sections, and articles, and sequential order of Plans/Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of the Work to be performed.

1.2.4 Well-Known Terms. Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

1.2.5 Contractor Deviations. No deviations by the Contractor from the Contract Documents relating to any portion of the services, materials, labor, or equipment required for the Work shall be construed to set a precedent with respect to subsequent interpretation of the Contract Documents or performance of the Work unless such a deviation is memorialized in a Modification to the Contract.

1.2.6 Complete Agreement. The Contract Documents constitute the full and complete understanding of the Parties and supersede any previous agreements or understandings, oral or written, with respect to the subject matter hereof. The Contract may be modified only by a written instrument signed by both Parties or pursuant to Article 7.

1.3 Capitalization

Terms capitalized in these General Conditions include those which are (i) specifically defined, (ii) the titles of numbered articles, and identified references to paragraphs, subparagraphs and clauses in the document or (iii) titles of other Contract Documents or forms.

1.4 Interpretation

1.4.1 Omitted Articles. In the interest of brevity, the Contract Documents frequently omit articles such as “the” and “an”, but the fact that an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement. The use of the word “including,” when following any general statement, shall not be construed to limit such statement to specific items or matters set forth immediately following such word or to similar items or matters whether or not non-limiting language (such as “without limitation, “but not limit to,” or words of similar import) is used with reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably fall within the broadest possible scope of such general statement.

1.4.2 References to Contract Documents. Where “as indicated”, “as detailed”, or words of similar import are used, it shall be understood that the reference is made to any one of the Contract Documents.

1.4.3 Severability. In the event any article, section, sub-article, paragraph, subparagraph, sentence, clause, or phrase contained in the Contract Documents shall be determined, declared, or adjudged invalid, illegal, unconstitutional, or otherwise unenforceable such determination, declaration, or adjudication shall in no manner affect the other articles, sections, sub-articles, paragraphs, subparagraphs, sentences, clauses, or phrases of the Contract Documents, which shall remain in full force and effect as if the article, section, sub-article, paragraph, subparagraph, sentence, clause, or phrase declared, determined, or adjudged invalid, illegal, unconstitutional, or otherwise unenforceable was not originally contained in the Contract Documents.

1.4.4 Provisions Deemed Inserted. Each and every provision and clause required by law to be inserted in the Contract Documents shall be deemed to be inserted herein and the Contract Documents shall be read and enforced as though such provision or clause is included herein and, if through mistake or otherwise, any such provision is not inserted or not correctly inserted, then upon application of either Party, the Contract Documents shall forthwith be physically amended to make such insertion or correction.

1.4.5 Headings Not Controlling. The various headings contained in the Contract Documents are inserted for convenience only and shall not affect the meaning or interpretation of the Contract or any provision thereof.

1.4.6 Singular/Plural/Gender Terms. Whenever the context so requires, the use of the singular number shall be deemed to include the plural and vice versa. Each gender shall be deemed to include any other gender, and each shall include corporation, partnership, trust, or other legal entity whenever the context so requires.

1.4.7 Technical/Non-Technical Words. Unless otherwise stated in the Contract Documents, technical words and abbreviations contained in the Contract Documents are used in accordance with commonly understood construction industry meanings; and non-technical words and abbreviations are used in accordance with their commonly understood meanings.

1.4.8 Referenced Standards. Bulletins, standards, rules, methods of analysis or test, and specification of other agencies, engineering societies or industrial associations may be referred to in the Contract Documents. Reference may also be made to applicable ordinances, codes or regulations of any political subdivision having jurisdiction. These refer to the latest edition, including amendments in effect and published at the time of advertising the Project for bid, unless specifically referred to by edition, volume or date.

1.5 Execution of Contract Documents

1.5.1 Signatures. The Contract shall be signed by the authorized representatives of the County and Contractor.

1.5.2 Contractor Representations Concerning Contract Documents and Site Investigation. By executing the Contract, Contractor represents and warrants that: (i) the Contract Documents are sufficiently detailed to enable Contractor to determine the cost of the Work within the Contract Sum and Contract Time; (ii) it has visited the Project Site, familiarized itself with the local conditions under which the Work is to be performed including, without limitation, the conditions contained in any test results and/or reports provided to or obtained by Contractor, and the conditions reflected on any Site surveys provided to or obtained by the Contractor; (iii) it is fully experienced, qualified and competent to perform the Work set forth in the Contract Documents; (iv) it is properly equipped, organized and financed to perform the Work; (v) it is properly permitted and licensed by California and all other governmental entities to perform the Work required by the Contract and that it will retain only properly licensed Subcontractors to perform the Work of the Contract; (vi) it has familiarized itself with all conditions bearing upon transportation, disposal, handling, and storage of materials; (vii) it has familiarized itself with the availability of labor, water, electric power, and roads; (viii) it has familiarized itself with uncertainties of weather or similar observable physical conditions at the Project Site; (ix) it has familiarized itself with the character of equipment and facilities needed during performance of the Work; (x) it has familiarized itself with the staging and material storage constraints of the Project Site and surrounding buildings and will confine its staging and storage operations to approved areas; (xi) it shall maintain the immediate surrounding areas of the Project Site in a clean and safe manner at all times; (xii) it will coordinate its construction activities with County's Separate Contractors, if any, performing work on the Project Site; (xiii) it will adhere to the assigned transit route identified by the County; and (xiv) it will adhere to and be bound by conditions set forth in the Contract Documents and any regulatory agency, utility, or governmental entity with jurisdiction over the Project. In addition, and without limiting the foregoing warranties, Contractor represents and warrants to County that prior to executing the Contract:

(1) Contractor has familiarized itself and will continuously familiarize itself throughout performance of the Work with the nature and extent of the Contract Documents, the Work, the Project Site, the identified existing conditions of the Project Site and locality, and all laws, rules, ordinances, and regulations of all government authorities and utilities having jurisdiction over the Project that may affect costs, progress, performance, or furnishing of the Work;

(2) Contractor has reviewed and carefully studied all examinations, investigations, explorations, tests, reports and studies provided to Contractor by County which pertain to the physical conditions at or contiguous to the Project Site or conditions which otherwise may affect the cost, progress, performance or furnishing of the Work, within the Contract Time and Construction Schedule. Contractor may rely upon the accuracy of the technical data contained in such documents but not upon nontechnical data, interpretations, opinions or conditional statements contained therein;

(3) Contractor has reviewed all information and data shown or indicated on the Contract Documents with respect to existing underground facilities at or contiguous to the Project Site;

(4) As of the effective date of the Contract, Contractor has no knowledge of any conflicts, errors, or discrepancies in the Contract Documents other than those which Contractor has notified County of in writing prior to executing the Contract; and

(5) Contractor is experienced and competent in the interpretation and use of Specifications and Drawings, and in the use of materials, equipment and construction techniques as are required to successfully complete the Project. Contractor shall, at its own expense, employ any and all experts necessary to successfully complete the Work required by the Contract Documents.

1.6 Ownership and Use of Drawings, Specifications and Other Instruments of Service

1.6.1 Ownership of Contract Documents. All Drawings, Specification, plans, sketches and other documents, including copies thereof, furnished by the County are and shall remain the property of the County and may be required to be returned to the County at the Contractor's expense. They are to be used only with respect to this Project and are not to be used on any other project. Submission or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the County's common law copyright or other reserved rights.

1.6.2 Contractor's Assignment of Copyrights. Project related documents created, prepared, or issued by Contractor, or its Subcontractors, including any Drawings, Specifications, and electronic data are "work for hire", and shall become the property of the County when prepared and shall be delivered to County whenever requested. The Contractor hereby assigns to the County, without reservation, all copyrights to all Project related documents, models, photographs, and other written expressions created by the Contractor.

1.6.3 Submissions to County. A copy of every technical memorandum and report prepared by Contractor shall be submitted to the County to demonstrate progress toward completion of Work. In the event County rejects or has comments on any such work product, County shall identify specific requirements for satisfactory completion by Contractor. Contractor shall provide County with Project related documents in reproducible or electronic format, upon County's written request. All Project related documents shall be turned over to County upon termination of this Agreement or Final Completion, whichever occurs first.

1.7 Publicity

The Contractor, its agents, employees, subcontractors and suppliers shall not engage in any communication or correspondence with persons not directly involved in the construction of the Project, concerning any aspect of the construction of the Project, without the express written consent of County. All communications to the media, or in response to inquiries made by private citizens, shall be issued solely through the County.

2 SAN BERNARDINO COUNTY'S DUTIES AND RESPONSIBILITIES

2.1 General

The County shall designate the Project Manager(s) defined in Paragraphs 4.1 below, in writing. Whenever the Contract Documents require or permit the County to take or request an action or approve or disapprove of an action or request made by another Party, the reference to "County" shall mean the County's Project Manager unless the Contract Documents or context make it clear that another person is authorized to act as the County's Project Manager. All communications to the County shall be made through the County's Project Manager. The Contractor shall not be entitled to rely on directions (nor shall it be required to follow the directions) from anyone outside the scope of that person's authority as set forth in written authorization pursuant to the Contract. Direction and decisions made by the County's Project Manager shall be binding on San Bernardino County. Contractor acknowledges that all Change Orders, Change Order Requests, Construction Change Directives and amendments to the written Contract require the approval of the Director, or his/her designee, and may also require the approval of the Board.

2.2 Reserved

2.3 Information and Services Required of the County

2.3.1 Approvals for Permanent Structures. Except for the permits, fees, and other such items set forth under Subparagraph 3.7.1, that are the responsibility of the Contractor under the Contract Documents, the County shall pay for necessary assessments and charges reasonably required for construction, use, or occupancy of permanent structures or for permanent changes in existing facilities.

2.3.2 Existing Utilities: Removal, Relocation and Protection. In accordance with California Government Code Section 4215, the County shall assume the responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities located on the Project Site which are not identified in the Contract Documents provided by County. Contractor shall be compensated for the costs of locating, repairing damage not due to the Contractor's failure to exercise reasonable care, and removing or relocating such utility facilities not indicated in the Contract Documents with reasonable accuracy, and for equipment on the Project Site necessarily idled during such work. Contractor shall not be assessed Liquidated Damages for delay in completion of the Work when such delay is caused by the failure of the County or the utility provider to provide for removal or relocation of such utility facilities. Nothing in this Paragraph shall be deemed to require the County to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the Project Site can be inferred from the presence of other visible facilities, such as buildings, meters and junction boxes, on or adjacent to the Project Site. If the Contractor encounters utility facilities not identified by the County in the Contract Documents, the Contractor shall immediately notify, in writing, the County. In the event that such utility facilities are owned by a public utility, the public utility shall have the sole discretion to perform repairs or relocation work or permit the Contractor to do such repairs or relocation work at a price determined in accordance with Article 7 herein.

2.3.3 Surveys. Contractor shall be responsible for locating, and shall locate prior to performing any Work, all utility lines, including telephone, cable, television, and fiber optic lines and cables, sewer lines, water pipes, gas lines, electrical lines, including, without limitation, all buried pipelines and buried telephone cables, and shall perform the Work in such a manner so as to avoid damaging any such lines, cables, pipes, and pipelines.

2.3.4 Time for Furnishing. Information or services required of the County by the Contract Documents shall be furnished by the County with reasonable promptness.

2.4 County's Right to Stop the Work

If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents as required by Paragraph 12.2 or fails to carry out Work in accordance with the Contract Documents, the County may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the County to stop the Work shall not give rise to a duty on the part of the County to exercise this right for the benefit of the Contractor or any other person or entity. The County's right to stop the Work is in addition to and without prejudice to any other rights or remedies of the County.

2.5 County's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a forty-eight (48) hour period after receipt of written notice from the County to commence and continue correction of such default or neglect with diligence and promptness, the County may after such forty-eight (48) hour period give the Contractor a second written notice to correct such deficiencies within a second forty-eight (48) hour period. If the Contractor within such second forty-eight (48) hour period after receipt of such second notice fails to commence and continue to correct any deficiencies, the County, without prejudice to other remedies the County may have, may correct such deficiencies. In such case an appropriate Construction Change Directive shall be issued deducting from payments then or thereafter due the Contractor, the cost of correcting such deficiencies, including compensation for any additional design services and expenses made necessary by such default, neglect, or failure. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the County. The County's right to carry out the Work is in addition to and without prejudice to any other rights or remedies of the County.

2.6 Suspensions of Operations

In addition to the County's right to stop the Work set forth in these General Conditions, the Contractor shall, upon receipt of County's written notice and within the time stated therein, suspend shipment and delivery of material and stop any part or all of the Work and operations under the Contract for such period or periods of time as the County may deem advisable and designate in said notice. Upon receipt of such notice to suspend operations, the Contractor shall immediately confer with the County concerning the probable duration of such suspension and stoppage, delays, and extensions of time resulting therefrom as well as the reduction and possible elimination of the Contractor's field cost and such other costs and expenses as may result directly from such Work stoppage. Upon written notice from the County to resume operations, the Contractor shall promptly resume all or any part of the Work and operations including securing of materials required by said resumption notice. Contractor shall be compensated for suspension in accordance with Article 13 herein.

2.7 Prohibited Interests

No official of the County who is authorized in such capacity and on behalf of County to negotiate, make, accept, or approve, or to take part in negotiating, making, accepting or approving any County structural, engineering, inspection, construction or material supply contract or any subcontract in connection with construction of the Project, shall become directly or indirectly interested financially in this Contract or in any part thereof. No officer, employee, attorney, engineer or inspector of or for County who is authorized in such capacity and on behalf of County to exercise any executive, supervisory or other similar functions in connection with construction of Project shall become directly or indirectly interested financially in this Contract in any part thereof.

Contractor shall receive no compensation and shall repay County for any compensation received by Contractor hereunder, should Contractor aid, abet or knowingly participate in violation of this Section.

2.8 County's Right to Order Extraordinary Measures

2.8.1 Non-Compensable Extraordinary Measures. In the event the County determines that the performance of the Work, or any portion thereof, has not progressed or reached the level of completion required by the Contract Documents due to causes within the control of Contractor, the County shall have the right to order the Contractor to take corrective measures necessary to expedite the progress of construction, including, without limitation, (i) working additional shifts or overtime, (ii) supplying additional manpower, equipment, and facilities and (iii) submitting a recovery schedule for re-sequencing performance of the Work or other similar measures as defined as Extraordinary Measures in Paragraph 1.1 above. Such Extraordinary Measures shall continue until the progress of the Work complies with the stage of completion as required by the Contract Documents. The Contractor shall not be entitled to an adjustment in the Contract Sum in connection with the Extraordinary Measures required by the County under or pursuant to this section. The County may exercise the rights furnished the County under or pursuant to this section as frequently as the County deems necessary to ensure that the Contractor's performance of the Work will comply with the Contract Time or interim completion dates set forth in the Contract Documents. If Contractor or its Subcontractors fail to implement or commence Extraordinary Measures within ten (10) calendar days of County's written demand, County may, without prejudice to other remedies take corrective action at the expense of the Contractor and shall reduce the Contract Sum.

2.8.2 Compensable Extraordinary Measures. County, in its discretion, may issue a written request to the Contractor asking Contractor to submit an itemized proposal for Extraordinary Measures in order to achieve early completion of all or a portion of the Work, due to no fault of the Contractor, in a form acceptable to County within ten (10) calendar days after County's issuance of the Acceleration Proposal Request.

2.9 Authority of the Department and Division

2.9.1 The Division shall represent the County and shall decide, within the provisions of the Specifications and Drawings, all questions which may arise concerning the quality or acceptability of materials furnished and Work performed.

2.9.2 All questions concerning substitutions, selections, materials, colors and textures shall be submitted to the Division for approval.

2.9.3 In all cases requiring interpretation of the Drawings and/or Specifications, the decision of the Division shall be final.

2.9.4 Final determination of the acceptable fulfillment of the Contract on the part of the Contractor shall be made by the Department.

2.9.5 The Director is authorized to represent the County regarding any suspension or termination of this Contract. The Board must approve any assignment of this Contract.

2.10 Authority of Board

The Board has the final authority in all matters affecting the Work.

2.11 Materials Furnished by County.

2.11.1 Materials furnished by the County will be available at locations designed in the Contract Documents, or if not designated in the Contract Documents, they will be delivered to a single location of County's choice within the Project area. They shall be hauled to the site of installation by the Contractor at its expense, including any necessary loading and unloading that may be involved. The cost of handling and placing materials furnished by the County shall be considered as included in the Contract Sum.

2.11.2 The Contractor will be held responsible for all materials furnished to it, and it shall pay all demurrage and storage charges. Furnished materials, after delivery to Contractor, lost or damaged from any cause whatsoever shall be replaced by the Contractor. The Contractor will be liable to the County for the cost of replacing lost or damaged furnished material and such costs may be deducted from any monies due or to become due the Contractor.

3 CONTRACTOR'S DUTIES AND RESPONSIBILITIES

3.1 General

The Contractor shall perform the Work in accordance with the Contract Documents. The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the County, or of the County's Separate Contractors, in their administration of the Contract, or by tests, inspections, or approvals required or performed by persons other than the Contractor.

3.2 Request for Information ("RFI")

If the Contractor encounters any condition which the Contractor believes, in good faith and with reasonable basis, is the result of an ambiguity, conflict, error or omission in the Contract Documents (collectively the "Conditions"), it shall be the affirmative obligation of the Contractor to timely notify the County, in writing, of the Conditions encountered and to request information from the County necessary to address and resolve any such Conditions. If the Contractor fails to timely notify the County in writing of any Conditions encountered and the Contractor proceeds to perform any portion of the Work containing or affected by such Conditions, the Contractor shall bear all costs associated with or required to correct, remove, or otherwise remedy any portion of the Work affected thereby without adjustment of the Contract Time or the Contract Sum. The Contract Time shall not be subject to adjustment in the event that the Contractor fails to timely request information from the County.

3.3 Supervision and Construction Procedures

3.3.1 Contractor's Means and Methods. The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention, and provide sufficient supervision to assure proper coordination and timely completion of Project. The methods and means adopted by the Contractor shall be such as to secure a quality of Work satisfactory to the County and to enable the Contractor to complete the Work by the Contract Time. The Contractor shall be responsible for and have control over construction means, methods, techniques, sequences, and procedures for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences, or procedures may not be safe, the Contractor shall give timely written notice within ten (10) calendar days to the County, such notice shall include proposed changes by Contractor, and Contractor shall not proceed with that portion of the Work without further instructions from the County. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences, or procedures without acceptance of changes proposed by the Contractor, the County shall be solely responsible for any resulting loss or damage.

3.3.2 Contractor's Vicarious Liability. Contractor shall be responsible to County for acts and omissions of Contractor's employees, Consultants, Subcontractors, Sub-subcontractors, and their agents and employees, and any other persons or entities performing any of the Work under a direct or indirect contract (or other arrangement) with the Contractor.

3.3.3 Property Lines and Encroachments. If required by County, prior to the commencement of the Work on the Project Site, County shall have all property corners and benchmarks verified and established by a State licensed land surveyor, shall locate the Project, together with all grades, lines, and levels necessary for the Work, on the Project Site, establishing necessary reference marks from which the Work can progress accurately and shall furnish Contractor with reasonable evidence of such verification, noting any errors, inconsistencies, or omissions discovered during such verification. The Contractor shall not disturb survey monuments, lot stakes (tagged), or bench marks without the consent of the County. The Contractor shall bear the expense of replacing any that may be disturbed without permission. Replacement shall be done only under the direction of a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within California. After all lines are staked out and before foundation Work is commenced, Contractor shall review with County the placement of all buildings and other permanent facilities to be constructed on the Site. Any encroachments resulting from the Contractor's locating or constructing the Work on adjacent properties to the Project Site as revealed by a survey of the foundations or an "as-built" survey, except for encroachments arising from errors or omissions not reasonably discoverable by Contractor in the Contract Documents, shall be the sole responsibility of Contractor, and Contractor shall commence the remedy of such encroachments within thirty (30) calendar days after discovery thereof (unless circumstances require a more rapid response), at Contractor's sole cost and expense, either by the removal of the encroaching improvement (and the subsequent reconstruction of such improvement on the Project Site) or by agreement with the owner of the adjacent property, in a form and substance satisfactory to County in its sole discretion, providing a permanent easement for such encroachment.

3.3.4 Inspection of Work In Place. The Contractor shall be responsible for the inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

3.3.5 Contractor's Representative. Contractor shall employ competent Project Staff as deemed necessary by Contractor. Any Project Staff member and any replacement member shall be subject to the approval of the County. Upon notice from the County requesting replacement of any Project Staff member who is unsatisfactory to the County, Contractor shall in a timely manner, but in no event longer than twenty-four (24) hours after notification, replace such member with a competent member satisfactory to the County.

3.3.5.1 Superintendent. The Contractor shall provide an onsite full-time superintendent to assure proper coordination and timely completion.

3.4 Labor and Materials

3.4.1 Coordination. The Contractor shall coordinate its Work with that of all others on the Project including deliveries, storage, installations, and construction utilities. The Contractor shall be responsible for the space requirements, locations, and staging of its equipment in areas and locations approved by County. Where the proper and most effective space requirements, locations, and routing cannot be made as indicated in the Contract Documents, the Contractor shall meet with all others involved before installation to plan the most effective and efficient method of overall installation.

3.4.2 Temporary or Permanent Work. Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, sewer and electrical utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

3.4.3 Labor Discipline. The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them. Contractor shall not permit the possession or use of alcohol or illegal drugs on the jobsite nor shall the Contractor allow an employee, Subcontractor, material man, or any other person under the influence of alcohol or illegal drugs, or who is otherwise incapacitated to work on the Project.

3.4.4 Skilled Labor. None but skilled workmen shall be employed on any portion of the Work. When required in writing by the County, the Contractor, Subcontractor or Sub-Subcontractor shall discharge any person who is, in the reasonable opinion of the County, incompetent, unfaithful, disorderly or otherwise unsatisfactory, and shall not again employ such discharged person on the Work except with the written consent of the County. Such discharge shall not be the basis of any claim for compensation or damages against the County or any of its officers or agents.

3.4.5 Procurement and Installation of Materials and Equipment. Contractor shall: (i) place orders for all materials and equipment, taking into account current market and delivery conditions necessary to meet the Construction Schedule; (ii) purchase and expedite the procurement of long lead time items to obtain their delivery by the required dates; and (iii) arrange for alternate sources for the supply of critical materials and equipment to maintain the schedule. Should Contractor fail in this duty, County reserves the right to order such materials and equipment as the County may deem advisable to maintain the schedule for the Work or the Contract Time and all expenses shall be

charged to and paid for by Contractor within the Contract Sum. Contractor shall keep the County informed of the status of procurement and shall promptly notify County in writing of any materials or equipment which may not be available within the time scheduled or necessary for the Project. The Contractor shall be responsible for the space requirements, locations, and routing of its equipment. In areas and locations where the proper and most effective space requirements, locations and routing cannot be made as indicated, the Contractor shall meet with all others involved, including, but not limited to, County, Architect, and Subcontractors before installation, to plan the most effective and efficient method of overall installation.

3.4.6 Substitution of Materials, Process or Equipment.

3.4.6.1 Whenever any particular material, process, or equipment is indicated in the Contract Documents by patent, proprietary, manufacturer or brand name, with or without the words "or equal", only such items shall be provided unless the County's prior written approval is obtained for the substitution. The burden of proving the quality of any material, process, or equipment proposed for substitution shall rest with the Contractor.

3.4.6.2 If any substitution request offered by the Contractor is not found to be equivalent or cannot be delivered to the Site in compliance with the Project Schedule, Contractor shall furnish and install the material specified in the Contract Documents.

3.4.6.3 Proposals for substitutions shall be submitted to the County using an approved format. Unless otherwise approved in writing by County, no substitution will be considered or allowed by the County without Contractor's delivery of the following to County:

- (1) A full explanation of the proposed substitution and submittal of all supporting data including technical information, complete manufacturers catalogs, brochures, drawings, samples, warranties, certified copies of test results, installation instructions, operating procedures, and other descriptive information to substantiate Contractor's claim of equivalent quality and necessary for a complete evaluation of the proposal;
- (2) A complete description of the difference between the requirements of the Contract Documents and the proposed substitution, the comparative advantages and disadvantages of each, and the reasons the substitution is advantageous and necessary, including the benefits of the County and the Work in the event the substitution is acceptable;
- (3) A description of aspects of the Contract Documents affected by the proposal;
- (4) The adjustment, if any, in the Contract Sum in the event the substitution is acceptable;
- (5) The adjustment, if any, in the Contract Time and impact to the Construction Schedule;
- (6) The estimated cost of any engineering, design, or agency fees required for Work of all trades directly or indirectly affected by the substitution;
- (7) A list of projects, to the extent known, where the subject of the request was used and the results; and

- (8) Other information reasonably necessary to fully evaluate the substitution request.

3.4.6.4 By submitting a substitution request, Contractor will be deemed to certify to the County that (i) the proposed substitution is equal to or exceeds all requirements of the pertinent Contract Documents as reasonably determined by Contractor; (ii) Contractor accepts the warranty and correction obligations in connection with the proposed substitution as if originally specified; (iii) the cost data presented is complete and includes all related costs under Contract; (iv) Contractor will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects; (v) Contractor waives all Claims for additional costs related to the substitution which subsequently become apparent; and (vi) Contractor accepts all responsibility for direct or indirect costs and/or time impacts as result of the substitution.

3.4.6.5 Contractor shall submit to County, or its designated representative (i.e. Architect) all requests for substitutions, including products to be reviewed as an approved equal, together with substantiating data, within 20 days after the award of the Contract, or as otherwise stated in the Contract Documents. Following commencement of construction, substitutions requested by the Contractor will be considered only when one or more of the following conditions are met and documented by Contractor:

- (1) Specified item fails to comply with regulatory requirements; or
- (2) Specified item has been discontinued by the manufacturer; or
- (3) Specified item, through no fault of the Contractor, is unavailable in the time frame required to meet the Project Schedule; or
- (4) Specified item, through subsequent information disclosure, will not perform properly or fit in designated space; or
- (5) Manufacturer declares specified product to be unsuitable for intended use or refuses to warrant installation of product.

3.4.6.6 The County has reviewed the technical and aesthetic qualities of materials specified, and in no case will the County accept a substitution of a product with a lower cost which does not extend credit to the County.

3.4.6.7 No incomplete request for substitution will be considered by the County, and products for which insufficient information is submitted will be disapproved by the County for lack of substantiating data.

3.4.6.8 Failure of the Contractor to submit proposed substitutions for approval in the manner described may be deemed sufficient cause for disapproval by the County of any substitution otherwise proposed.

3.4.6.9 Contractor shall proceed with performance of the Work as required by the Contract Documents and shall not modify such requirements in accordance with any substitution request unless the County approves such request in a written order. In the event County approves a substitution request and Contractor furnishes a material, process or article more expensive than that specified, the difference in cost shall be borne entirely by Contractor. Any engineering, design fees or agency fees required to make adjustments in material or work of all trades directly or indirectly affected by the approved substituted item shall be borne entirely by Contractor.

3.4.7 Reference Standards. Any material specified by reference to the number, symbol, or title of a standard such as that of the American Society for Testing Materials ("ASTM"), Underwriters Laboratories, Factory Mutual, a product or commercial standard, or similar standards, shall comply with the requirements of the latest revisions thereof and any supplement or amendment thereto in effect on the date of the Contract. The standards referred to, except as specifically modified in the Specifications, shall have the same force as if they were printed in full within the Contract Documents. Whenever a product is specified in accordance with such a Reference Standard, the Contractor shall present a certification from the manufacturer and test data to substantiate compliance, when requested by the County or required by the Specifications, certifying that the product complies with the particular standard or specification.

3.4.8 Manufacturer's Instruction. Where it is required in the Contract Documents that materials, products, processes, equipment or the like be installed or applied in accordance with manufacturer's instructions, directions or specifications or words to this effect, it shall be construed to mean that said application or installation shall be in strict accord with current printed instructions furnished by the manufacturer of the material concerned for use under conditions similar to those at the jobsite. If there is a conflict between manufacturer's instructions and Applicable Law or the Contract Documents, Contractor shall notify County in writing to request clarification.

3.4.9 Workmanship, Materials and Manufactured Items. All workmanship, equipment, materials, and articles incorporated in the Work are to be of the most suitable grade of their respective kinds for the purpose; and equipment, materials, and parts shall be new, best quality, undamaged, and free from defects.

3.4.9.1 All materials to be incorporated in the Work shall be protected from damage during shipping, delivery, storage, and handling, and after installation until acceptance of the Work.

3.4.9.2 Material and work quality shall be subject to the Project Manager's approval.

3.4.9.3 Materials and work quality not conforming to the requirements of the Contract Documents shall be considered defective and will be subject to rejection.

3.4.9.4 Defective work or material, whether in place or not, shall be removed immediately from the Site by the Contractor, at its expense, when so directed by the Project Manager.

3.4.9.5 If the Contractor fails to replace any defective or damaged work or material after reasonable notice, the Project Manager may cause such work or materials to be replaced. The replacement expense will be deducted from the amount to be paid to the Contractor.

3.5 Warranty and Correction

3.5.1 Warranty. The Contractor warrants to the County that: (i) materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents; (ii) the Work will be of good quality and free from defects; (iii) the Work will conform to the requirements of the Contract Documents; and (iv) Contractor will deliver a Project free of stop notice claims. Work not conforming to these requirements, including substitutions not properly approved by the County, shall be deemed defective. Contractor warranty excludes improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the County, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions of Paragraph 12.2 herein.

3.5.2 Commencement of Correction Periods. In accordance with Paragraph 12.2 herein, in addition to warranties required elsewhere in the Contract Documents, Contractor shall, and hereby does, warrant all Work for a period of one (1) year commencing from the date of Final Completion of the Work and shall repair or replace any and all such Work, together with any other Work which may be displaced in so doing, that may prove defective in workmanship and/or materials, without expense whatsoever to County.

3.5.2.1 This paragraph does not in any way limit the warranty on any items for which a longer guarantee is specified, or on any items for which a manufacturer gives a warranty for a longer period.

3.5.3 No Limitation. Nothing contained in this Section shall be construed to establish a period of limitation with respect to other obligations that the Contractor might have under the Contract Documents. Establishment of the one-year period for correction of Work relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligation other than specifically to correct the Work. Neither the making of Final Payment nor the use or occupancy of the work, in whole or in part, by County shall constitute acceptance of Work not in accordance with the Contract Documents or relieve the Contractor from liability for faulty or defective Work.

3.5.4 Overlap. Where any warranties provided under the Contract Documents overlap, conflict, or are duplicative, Contractor shall be bound by the more stringent requirements.

3.5.5 County's Right to Correct. If Contractor fails to commence corrections within forty-eight (48) hours after receipt of written notice, County, under the provisions of Article 12 herein, will proceed to have defects repaired and made good at the expense of Contractor and its performance bond surety, plus fifteen percent (15%) for County's overhead and administrative expense. County may charge such costs against any payment due Contractor. If, in the opinion of the County, defective work creates a dangerous or hazardous condition or requires immediate correction or attention to prevent further loss to the County or to prevent interruption of operations of the County, the County may take immediate action, give notice, make such correction, or provide such attention and the cost of such correction or attention shall be charged against the Contractor. Such action by the County will not relieve the Contractor of the warranties provided in this Section or elsewhere in the Contract Documents.

3.5.6 Procurement and Assignment of Warranties. Contractor shall obtain in the name of County, or transfer or assign to County or County's designee prior to the time of Final Completion of the Work, any and all warranties or guarantees which Contractor is required to obtain pursuant to the Contract Documents and which Contractor obtained from any other person or entity other than Contractor including, but not limited to, Subcontractors and manufacturers, and further agrees to perform the Work in such a manner so as to preserve any and all such warranties. Contractor shall secure written warranties from all Subcontractors in the form approved by County. Contractor and its Subcontractors shall offer any warranty upgrades or extensions that are offered by manufacturers of any equipment or system in the Project to the County.

3.5.7 Survival of Warranties. The provisions of this Paragraph 3.5 shall survive Contractor's completion of the Work or termination of Contractor's performance of the Work.

3.6 Taxes

3.6.1 Payment. The Contractor shall pay all applicable sales, consumer, use, and similar taxes for the Work provided by the Contractor and such taxes shall be included in the Contract Sum.

3.6.2 Liability for Employee Payments. Contractor accepts full liability for the payment of any and all contributions, deductions, or taxes for social security, unemployment insurance, old age and survivor's benefits, medical and health benefits, or for any other purpose not or hereafter imposed under any Applicable Law measured by the wages, salary or other remuneration paid to persons employed by or on behalf of Contractor for the Work. Contractor covenants and agrees to observe and fully comply with all Applicable Law, including procurement of any necessary occupational licenses, permits and inspection certificates.

3.7 Permits, Fees and Notices

3.7.1 Responsibility for Permits and Fees. Except for the permits, approvals, government fees, licenses and inspections which have been identified and designated elsewhere in the Contract Documents to be provided by the County, Contractor shall identify and obtain all permits, certificates, licenses, fees, approvals and inspections necessary or required for the proper execution and completion of the Work, or which are customarily secured after execution of the Contract and shall submit to County copies of receipts for reimbursement within the Contract Sum. All such permits, licenses and certificates shall be delivered to the County before Contractor submits a final Application for Payment. Unless stated otherwise in the Contract Documents, the County will pay connection fees directly to the utilities for all permanent water and electrical connections.

3.7.2 Notices. The Contractor shall comply with and give notices required by laws, ordinances, rules, regulations, and lawful orders of public authorities applicable to performance of the Work.

3.7.3 Bonds. The Contractor shall procure and pay for all bonds required of the County by any public or private entity with jurisdiction over the project. Contractor shall prepare all applications, supply all necessary backup material, and furnish the surety with any required personal undertakings. The Contractor shall also obtain and pay all charges for all approvals for street closings, traffic regulation, parking meter removal, and other similar matters as may be necessary or appropriate from time to time for the performance of the Work.

3.7.4 Compliance with Applicable Law.

3.7.4.1 Contractor is responsible to perform all Work in accordance with the requirements of local agencies and inspectors having jurisdiction over the Work. If the Contractor observes that any portions of the Contract Documents are at variance with Applicable Law, Contractor shall promptly notify the County in writing.

3.7.4.2 If the Contractor performs any Work when the Contractor knows or should have reasonably known it would be contrary to Applicable Law, Contractor shall assume full responsibility therefore and shall bear all costs (within the Contract Sum) directly or indirectly attributable to the correction of the Work. If Contractor fails to comply with any such codes, laws, ordinances, rules, and regulations, County may (without prejudice to any of its other rights or remedies) issue an order suspending all or any part of the Work.

3.8 Allowances

Contractor shall include in the Contract Sum and Schedule of Values all Allowances provided for in the Contract Documents. Items covered by Allowances shall be supplied for such amounts approved by Owner. All expenditures for Allowances shall be separately itemized in each Application for Payment and are subject to County's prior approval. County shall not reimburse Contractor for Allowance costs in excess of the amounts specified in the Schedule of Values without County's prior written approval of such costs.

3.9 Contractor's Key Personnel and Subcontractors

3.9.1 Contractor's Project Manager. The Contractor's Project Manager, as designated in the Agreement or as otherwise approved in writing by County, shall: (i) be present at the Project Site at all times that any Work is in progress and at any time that any Subcontractor or employee of Contractor is present at the Site; (ii) attend all job meetings; (iii) be actively involved throughout all phases of construction of the Project; (iv) maintain oversight of the Project at all times; (v) have full authority to represent and act on behalf of the Contractor for all purposes under this Agreement; (vi) supervise and direct the Work using his or her best skill and attention; (vii) be responsible for the means, methods, techniques, sequences, and procedures used for the Work; (viii) adequately coordinate all portions of the Work; and (ix) act as the principal contact with County and all Subcontractors and inspectors on the Project. A biography or resume of Contractor's Project Manager, or any proposed designee, shall be submitted to the County at the preconstruction meeting.

3.9.2 Contractor's Key Personnel. In addition to its designated Project Manager, Contractor represents to County that certain additional key personnel, designated in the Agreement or as otherwise approved in writing by County, including but not limited to, the superintendent, will perform services required by the Contract Documents. County may at any time elect to add job categories to the Contractor's key personnel list.

3.9.3 Changes in Contractor's Project Manager, Key Personnel and Subcontractors. Contractor shall not make changes to its Project Manager, key personnel or Subcontractors, or reduce their responsibilities for this Project without the prior written approval of the County. Prior to making any changes to the Project Manager, key personnel, or Subcontractors, the Contractor shall submit the qualifications and experience of the Contractor's proposed replacement for the County's approval. If County determines, in its sole discretion, that the performance of any person or entity employed by Contractor is unsatisfactory, then at the written request of County, Contractor shall remove, reassign, or replace such individual or entity without increase in

the Contract Sum and such individual or entity shall not be reemployed on the Project without the prior written approval of County.

3.9.4 Qualifications and Licenses. Work furnished by or on behalf of Contractor shall be performed by persons: (i) qualified to perform the Work assigned to them; and (ii) licensed to practice their respective trades or professions where required by Applicable Law in the State where the Project is located. Contractor's Project Manager, key personnel, and Subcontractors shall be experienced in projects of similar nature and complexity to the Project and must provide County with resumes of education, training, and relevant experience whenever requested and shall be approved by County prior to their assignment to the Project.

3.10 Documents and Samples at the Site

3.10.1 As-Built and Record Documents. Contractor shall maintain at the Project Site and shall make available to County, one copy of the Contract Documents, Addenda, requests for information, bulletins, Change Orders and other Modifications to the Contract Documents, approved Construction Documents, Shop Drawings, Product Data, Samples and mock-ups, permits, inspection reports, test results, daily logs, schedules, subcontracts, and purchase orders in good order (the "Record Documents"). The Record Documents shall include a set of As-Built Construction Documents, which shall be continuously updated during the prosecution of the Work. The prints for As-Built Construction Documents will be a set of blackline prints produced by Contractor and approved by County at the start of construction. Contractor shall maintain said set in good condition and shall use colored pencils to mark-up said set with "record information" in a legible manner to show; (i) deviations from the County-approved Construction Documents made during construction; (ii) details in the Work not previously shown; (iii) changes to existing conditions or existing conditions found to differ from those shown on any existing Construction Documents; (iv) the actual installed position of equipment, piping, conduits, light switches, electric fixtures, circuiting, ducts, dampers, access panels, control valves, drains, openings, and stubouts; and (v) such other information as County may reasonably request.

3.10.2 Condition to Payment. Contractor's obligation to keep Record Documents current, including As-Built Construction Documents, and to make them available to County is a condition precedent to County's duty to process Applications for Payment. The Contractor shall provide a written certification of this monthly review, signed by the County's Project Manager, and attach same to each Application for Payment. Within thirty (30) calendar days after Substantial Completion or earlier termination of the Agreement and as a condition precedent to Final Payment, Contractor shall provide final approved Record Documents including, but not limited to, As-Built Construction Documents and approved Shop Drawings. Contractor's obligations under Paragraph 3.10 shall survive completion of the Work or termination of Contractor's performance of the Work.

3.10.3 Daily Logs. Contractor shall maintain a daily log containing a record of weather, Contractor's own forces working on Site, Subcontractors working on the Site, number of workers for each Subcontractor on Site, materials delivered, Work accomplished, problems encountered and other similar relevant data as the County may reasonably require. The daily log shall be signed by Contractor's Superintendent, submitted within 24 hours (next working day) to County's Project Manager and shall be made available to others as directed by County.

3.11 Shop Drawings, Product Data and Samples

3.11.1 Shop Drawings. Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor, Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

3.11.2 Product Data. Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

3.11.3 Samples. Samples are physical examples which illustrate materials, equipment, or workmanship and establish standards by which the Work will be judged.

3.11.4 Purpose. Shop Drawings, Product Data, Samples, and similar submittals ("Submittals") are not Contract Documents. The list of required Submittals is designated in the Specifications. The purpose of these Submittals is to demonstrate for those portions of the Work for which submittals are required by the Contract Documents, the way by which the Contractor proposes to conform to the information given and expressed in the Contract Documents.

3.11.5 Contractor's Submittals.

3.11.5.1 Prompt Submittals. The Contractor shall review for compliance with the Contract Documents, confirm, and deliver to the County, Submittals within the timeframes required by the Contract Documents and with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the County or of separate Contractors. Contractor's complete and timely submission of submittals in conformity with the Submittal Schedule (identified in the Specifications) is a material consideration of the Contract. In the event that the County reasonably determines that all or any portion of any Submittal fails to comply with the requirements of the Contract Documents and/or such Submittals are not otherwise complete and accurate so as to require re-submission more than one time, Contractor shall bear all costs (within the Contract Sum) associated with the review and approval of such resubmitted Submittals. No adjustment to the Contract Time or the Contract Sum shall be granted by the County to the Contractor on account of Contractor's failure to make timely submission of any Submittals.

3.11.5.2 Contractor's Confirmation of Submittals. After checking and verifying all field measurements and after complying with applicable procedures specified in the Specifications, Contractor shall submit to County in compliance with the Submittal Schedule for review and approval, or for other appropriate action, one (1) reproducible transparency (sepia) and four (4) opaque prints (unless otherwise specified in the Specifications) of all Shop Drawings and other Submittals, which shall bear a stamp or specific written indication that Contractor has satisfied Contractor's responsibilities under the Contract Documents with respect to the review of the Submittal. All Submittals will be identified as the County may reasonably require and shall include at a minimum the name of the Project, name of the Contractor, be numbered consecutively and referenced to the Project Drawings or Specification section affected. Submittals shall be combined for singular assemblies, items or materials. The data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data in order to enable County to review the information as required.

- (1)** Before submission of each Submittal, Contractor shall have determined and verified quantities and dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar data with

respect thereto and reviewed and coordinated each Submittal with other Submittals and with the requirements of the Work and the Contract Documents.

(2) Shop Drawings shall show in detail the size, sections, and dimensions of all members; the arrangement and construction of all connections and joints, and other pertinent details; also, all holds, straps, and other fittings required by other contractors for attaching their work. When required by the County, engineering computations shall be submitted. The Contractor shall be responsible for delivering copies of Shop Drawings to all other persons whose work is dependent thereon.

(3) At the time of each submission, Contractor shall give County specific written notice of each variation that the Submittal may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation to be made on each Submittal submitted to County for review and approval of each such variation.

(4) If the Shop Drawings or manufacturer's data show variations from the Contract Document requirements because of standard shop practice or other reason, the Contractor shall make specific mention of such variations in its letter of transmittal.

(5) By reviewing and submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and conditions related thereto, and has checked and coordinated the information contained within such Submittals with the requirements of the Work, of the Contract Documents and of the Shop Drawings for related Work.

3.11.6 Review by County. Unless Contractor is notified in writing of a specific need for an extended period of time due to the nature or extent of the Shop Drawings being submitted, County shall utilize its best efforts to complete Shop Drawing review within a maximum of ten (10) calendar days. Submittals made by Contractor which are not required by the Contract Documents may be returned without action by the County. County's review and approval will be general and for compliance with design intent and information given in the Contract Documents and shall not extend to means, methods, techniques, sequences, or procedures of construction (except where a specific means, method, technique, sequence, or procedure of construction is indicated in or required by the Contract Documents). Review of Shop Drawings shall not relieve the Contractor from the responsibility for proper fitting and construction of the Work, nor from furnishing materials and work required by the Contractor which may not be indicated on the reviewed Shop Drawings. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. Contractor shall make corrections required by County, and shall return the required number of corrected copies of Submittals and submit as required new Submittals for review and approval. Contractor shall direct specific attention in writing to any and all revisions other than the corrections called for by County on previous Submittals.

3.11.7 Performance. The Contractor shall perform no portion of the Work requiring review of Submittals until the County has reviewed the respective Submittal. Such Work shall be in accordance with the approved Submittals and the Contract Documents, and no Work shall be started without obtaining prior written approval from the County.

3.11.8 Approved Submittals. The Work shall be performed in accordance with approved Submittals and the Contractor shall not be relieved of responsibility for

variations from requirements of the Contract Documents by the County's approval of Shop Drawings, Product Data, Samples, or similar submittals unless the Contractor has specifically informed the County in writing of such deviation at the time of submittal and a Change Order or Construction Change Directive has been issued, authorizing the variations. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals by the County's approval thereof.

3.11.9 Resubmission. Contractor shall direct specific attention, in writing, on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those required by the County on previous submittals. In the absence of such written notice the County's approval of a resubmission shall not apply to such revisions.

3.11.10 Conflicts, Errors or Omissions. If Contractor discovers any conflicts, omissions, or errors in Shop Drawings or other submittals, Contractor shall notify the County and receive written instruction before proceeding with the affected Work.

3.11.11 Maintenance at Site. The Contractor shall maintain at the Site of the Project, at all times, a complete file of County reviewed Shop Drawings and manufacturers' data of his own and all Subcontractors.

3.12 Site Conditions

3.12.1 The Contractor represents that it has taken the necessary steps to ascertain the nature, location and extent of the Work, and that it has investigated and satisfied itself as to the general and local conditions which are applicable to the Work, such as:

- (1) conditions bearing on transportation, disposal and storage of materials;
- (2) the availability of labor, water, power and roads;
- (3) normal weather conditions;
- (4) physical conditions at the Site;
- (5) the conditions of the ground;
- (6) the character of equipment and facilities needed prior to and during the performance of Work

3.12.2 To the extent the Contractor encounters subsurface conditions or hazardous materials which differ materially from that actually known by the Contractor, or from those ordinarily known to exist or contained in information about the Site made available to Contractor prior to the deadline to submit bids, or generally recognized as inherent in the area, then notice by the Contractor shall be immediately given to the County, before conditions are disturbed, and in no event later than two (2) business days after the first observance of the conditions. If such conditions could not have been reasonably identified by Contractor's Site investigations and available existing data, and the Contractor incurs an increase or decrease in costs or delays as a result of such concealed conditions, such conditions may be subject to a Change Order.

Should any existing utilities or services be disturbed, disconnected or damaged during construction, the Contractor shall be responsible, at no additional cost or time to the County, for all expenses and consequential damages of whatever nature arising from such disturbance or the replacement or repair thereof and shall repair such items as required to maintain continuing service, including emergency repairs.

3.12.3 The Contractor is responsible for foreseeable site conditions and toxic materials to the extent described in the Contract Documents and/or could be reasonably inferred by the Contractor based on its experience and expertise on similar projects.

3.12.4 Reserved.

3.12.5 The Contractor shall verify the location and depth (elevation of all existing utilities and services before performing excavation Work.

3.13 Use of Site

3.13.1 Site Constraints. Prior to mobilization on the Project Site, the Contractor shall submit to the County for approval a Site Constraint Plan including layout drawings to scale as required to fully describe the proposed locations of all temporary construction facilities and controls. This plan shall show the proposed activities in each portion of the Work area and identify the areas of limited use or nonuse. This plan shall also show proposed vehicle access routes and traffic control. Contractor shall confine operations at the Project to the areas designated in the Contract Documents and the approved Site Constraint Plan and within the hours permitted by codes, laws, ordinances, permits, or the County, and shall not unreasonably encumber the Project Site or the adjoining sidewalks, streets, and alleyways with any material, equipment, or debris. In that regard, Contractor shall keep the Site and surroundings clean and in a safe condition in accordance with Paragraph 3.15 herein and the Specifications. Contractor shall use only those locations designated on the approved Site Construction Plan for locating Contractor's trailers, staging areas, lay-down areas, and other construction operations. The Contractor shall not unreasonably encumber the Site with any materials or equipment, nor permit any persons on the Site, or any activity at the Site, except as the presence of those persons, or that activity, is directly related to the Project. The Contractor shall be liable for any and all damage caused by it to the County premises.

3.13.2 Coordination. Contractor expressly acknowledges that County, its own forces, and County's Separate Contractors may be working simultaneously with Contractor on the Project during certain periods of time in certain portions of the Project Site. Contractor and County will take all steps necessary in connection with the construction Work not to interfere with the use and occupancy of the Project Site by County's Separate Contractors and personnel to minimize any interruption of services to such person, including, without limitation, utilities, ingress and egress, and parking. Contractor further agrees to coordinate its construction activities with all others performing work on the Project Site, including deliveries, storage, and installation. Contractor shall meet and consult with County from time to time at County's request to insure that Contractor and County are fully advised of all other construction activities on the Project Site, and Contractor shall take such steps as are reasonably necessary at County's request to coordinate its Work with the Work of County's Separate Contractors on the Project Site.

3.13.3 Security. The Contractor shall be responsible for providing security at the Site of the Work with all such costs included in the Contract Sum. A temporary fence shall surround the Project Site unless otherwise required by County. All security provided by Contractor shall be coordinated with County's existing security personnel, if any. In addition, the Contractor shall take all necessary precautions and provide enclosures, barricades, security guards, signs, notices, shoring, bracing, passageways, lights, and such other materials, equipment, and services as may be required (including, without limitation, such protections as may be required by Applicable Laws) for the protection of: (i) all person who may be on the Project Site or in other areas affected by the Contractor's operations; and (ii) the County's and any third party's personal and real property. Contractor shall execute all repairs to land, roadways, structures, utilities, sidewalks, parkways and alleys damaged by the operations under this Contract.

3.13.4 Utility Interruption. When it is necessary to interrupt any existing utility service, a minimum of fourteen (14) calendar days advance written request for interruption of services shall be given by the Contractor to the County. Interruption of these services

shall be of the shortest possible duration and shall be approved by the County in advance of such interruption. In the event that such notices and approvals are not secured prior to interruption in utility services the Contractor shall be financially liable for any and all damages suffered by the County and third parties due to unauthorized interruption.

3.13.5 Parking. The Contractor shall coordinate and obtain all construction related parking. The cost of all Contractor parking shall be included in the Contract Sum.

3.14 Cutting and Patching

3.14.1 Responsibility. Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly.

3.14.2 Separate Contractors. Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the County or County's Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. Contractor shall not cut or otherwise alter such construction by the County or a Separate Contractor except with written consent of the County.

3.14.3 Finish Surfaces. Cutting, drilling or other mechanical change to surfaces constituting final finish, including but not limited to, glass, marble, tile mosaic, finish wood, finish metals, etc., necessary for the fastening, installation, securing, and/or insertion of any devices, equipment, and/or materials shall be accomplished with special care. If requested by the County, Contractor shall submit procedures for finish changes to be done by any trades other than the one installing the specific finish material. Failure to obtain County approval shall place full responsibility upon the Contractor for any extra cost occasioned by unacceptable finish-surface.

3.15 Cleaning Up

3.15.1 Continuous Obligations. The Contractor shall keep the Project Site and surrounding area free from accumulation of waste materials or rubbish at all times. As construction is completed on a daily basis, paved surfaces adjoining the Project shall be broomed clean and other surfaces of the Project Site raked clean. If the Contractor defaults or neglects to maintain the Project free from accumulation of waste and rubbish as set forth above, and fails within a twenty-four (24) hour period after receipt of oral notice, subsequently confirmed in writing, to commence and continue correction of such default or neglect with diligence and promptness, the County may after such twenty-four (24) hour period, immediately, without prejudice to other remedies the County may have, correct such deficiencies. In such case, an appropriate Construction Change Directive shall be issued deducting from payments then and thereafter due the Contractor the cost of correcting such deficiencies. If payment then and thereafter due the Contractor is not sufficient to cover such amounts, the Contractor shall pay the difference to the County on demand.

3.15.2 Cleaning and Environmental Controls.

- (1) Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- (2) Remove waste materials, debris and rubbish from site and dispose off site legally.
- (3) The Contractor shall take appropriate action to insure that no dust originates from the Project Site.
- (4) Spoil sites shall not be located where spoil shall be washed back into a street gutter, storm drain, runoff conveyance or ocean.

- (5) Water containing mud, silt, or other pollutants from activities, shall not be allowed to enter the ocean or placed in locations that may be subject to storm runoff.

3.15.3 Water Pollution Control. Contractor must comply with all requirements of the California State Water Resources Control Board, including the statewide General Permit for Discharges of Storm Waters Associated with Construction Sites (See Order No. 2009-0009-DWQ). This includes, but is not limited to, paying all appropriate fees, filing all required documentation, and complying with all the regulations of the State Water Resources Control Board.

As part of the County's Storm Water Management Program, implementation of minimum Best Management Practices (BMPs) is required for this Contract. The Contractor is directed to comply with applicable requirements of the BMPs that are specified under this section to reduce pollutants from entering the storm drain system.

The Contractor shall maintain copies of these BMP fact sheets (guidance paper) at the Project Site and shall make these fact sheets available during construction activities. Best Management Practices shall be defined as any program, technology, progress, siting criteria, operating method, measure, or device that controls, prevents, removes, or reduces pollution. These BMPs have been selected from the California Storm Water Best Management Practice Handbook, Municipal Industrial, and Construction Volumes (latest, ed.). These handbooks contain a full description of each BMP and provide for its implementation. Copies of the handbook may be obtained from:

San Bernardino County
Environmental Management Division
825 East Third Street – Room 201
San Bernardino, CA 92415-0835
Telephone No. (909) 387-8112

As a minimum, the Contractor shall implement the following BMPs in conjunction with all its activities construction operations:

- B.1. Site Planning Consideration
Preservation of Existing Vegetation (ESC02)
- B.2. Construction Practices
Structure Construction and Painting (CA03)
Spill Prevention and Control (CA12)
Dust Control (ESC21)
Storm Drain Inlet Protection (ESC54)
- B.3. Vehicle & Equipment Management
Vehicle & Equipment Cleaning (CA30)
Vehicle & Equipment Maintenance (CA32)
- B.4. Material Management
Solid Waste Management (CA20)
Concrete Waste Management (CA23)
Sanitary/Septic Waste Management (CA24)

3.15.3.1 Additional BMPs. Contractor may be required to implement additional BMPs as a result of a change in actual field conditions, Contractor activities, or construction operations. When more than one BMP is listed under each category, the Contractor shall select the appropriate and necessary BMPs in order to achieve the BMP objective.

3.15.3.2 Enforcement. The County, as a permittee, is subject to enforcement actions by the Regional Water Quality Control Board, U.S. Environmental Protection Agency, environmental groups and private citizens. The Contractor shall be responsible for the costs and for any liability imposed by law as a result of the Contractor's failure to comply and/or less than complete implementation with the requirement set forth in this section "Water Pollution Control". Cost and liabilities include, but are not limited to, fines, penalties and damages whether assessed against the County or the Contractor. In addition to any remedy authorized by law, so much of the money due to the Contractor under the Contract that shall be considered necessary by the County may be retained by the County until disposition has been made of the costs and liabilities.

3.15.3.3 Maintenance. Contractor shall ensure the proper implementation and functioning of BMPs control measures, and shall regularly inspect and maintain the construction site for the BMPs identified in Section 3.15.3 above. The Contractor shall identify corrective actions and time frames to address any damaged measures or reinstate any BMPs that have been discontinued.

3.15.4 Final Completion. In order to achieve Final Completion of the Work, the Contractor must remove from and about the Project waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials as well as the requirements set forth in the Contract Documents. In addition to the general cleaning, the Contractor must perform the following special cleaning requirements:

- (1) Remove putty stains from glazing, then wash and polish glazing;
- (2) Remove marks, stains, fingerprints, and other soil or dirt from glass, painted, stained, or decorated work;
- (3) Remove temporary protection and clean and polish floors and waxed surfaces;
- (4) Clean and polish hardware and plumbing trim; remove stains, dust, dirt, plaster, and paint;
- (5) Remove spots, soil, plaster, and paint from tile work, and wash tile;
- (6) Clean all fixtures and equipment, remove excess lubrication, clean light fixtures and lamps, polish metal surfaces;
- (7) Vacuum-clean carpeted surfaces and remove any stains; and
- (8) Remove debris from roofs, downspout, and drainage system.

3.16 Access to Work

The Contractor shall provide the County and its respective Project Managers, Consultants, and other persons authorized by the County, access to the Work in preparation and progress wherever located. Contractor shall provide safe and proper facilities for such access and for inspection.

3.17 Royalties, Patents and Copyrights

3.17.1 Contractor Must Secure Rights. The Contractor shall secure in writing from all patentees, copyright holders, and assignees of all Project-related documents, all copyrights, assignments, and licenses related to such expression (e.g., designs, drawings, Contract Documents, specifications, documents in computer form, etc.) as necessary to allow the County the full, unlimited, and unencumbered use of that expression for the execution, operation, maintenance, modernization or expansion of the Project. The Contractor shall immediately convey all such copyrights, assignments, and licenses to the County without reservation. In the case of products, materials, systems, etc., protected by patent, the Contractor shall not specify or cause to be specified any infringing use of a patent. The Contractor shall pay all royalties and license fees.

3.17.2 Infringement. Should the Contractor become aware of or receive notice of potential infringement of any intellectual property right related to the Project, regardless of the source of that awareness or notice, in addition to its indemnity obligation, the Contractor shall (a) immediately cease the copying and any other activity which is the potential source of infringement; and within seven (7) calendar days (b) investigate the potential infringement; (c) submit to the County copies of all documents relating to that awareness, the notice, or the object thereof; and (d) issue to the County a complete written response and analysis of the potential infringement and the course of action recommended by the Contractor. The Contractor shall submit to the County a supplement of the initial report within seven (7) calendar days of the Contractor's receipt of, or awareness of, additional related information. Nothing in this Agreement shall be deemed to relieve the Contractor of its obligations under this Article, nor shall the County's receipt of the information indicated in this Article give rise to any duty or obligation on the part of County.

3.17.3 Assignment of Rights. The Contractor offers and agrees to assign to the County 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 of the State of California], arising from purchases of goods, services or materials pursuant to the performance of the Work. This assignment will be made and become effective at the time the County tenders Final Payment to the Contractor, without further acknowledgement by the Parties.

3.18 Indemnification

To the fullest extent possible permitted by law, Contractor assumes liability for and agrees, at the Contractor's sole cost and expense, to promptly and fully indemnify, defend (with counsel reasonably approved by County) (even if the allegations are false, fraudulent, or groundless), and hold harmless the County and its authorized officers, employees, agents and volunteers (Indemnitees) from and against any and all claims (including claims against the County seeking compensation for labor performed or materials used or furnished to be used in the work or alleged to have been furnished on the project, including all incidental or consequential damages resulting to the County from such claims), allegations, actions, suits, arbitrations, administrative proceedings, regulatory proceedings, or other legal proceedings, demands, losses, costs, damages, judgments, liens, stop notices, penalties, anticipated losses of revenue and/or liability, and expenses (including, but not limited to, any fees of accountants, attorneys, experts or other professionals, or investigation expenses) arising out of, resulting from, or in any way (either directly or indirectly) related to the contract, the work, the project or any breach of the Contract by Contractor (or any of its officers, agents, employees, subcontractors, or any person performing any of the work, or from any cause whatsoever, including the acts, errors or omissions of any person and for any costs or expenses incurred by the Indemnitees on account of any claim except where such indemnification is prohibited by law. This indemnification provision shall apply regardless of the existence or degree of fault of indemnitees. The Contractor's indemnification obligation applies to the Indemnitee's "passive" negligence but does not apply to the Indemnitee's "sole" or "active" negligence or "willful misconduct" within the meaning of Civil Code section 2782 provided such "active" negligence or "willful misconduct" is determined by agreement of the parties or by findings of a court. In instances where an Indemnitee's "active" negligence accounts for only a percentage of the liability for the claim involved, the obligation of the Contractor will be for that entire percentage of liability for the claim not attributable to the "active" negligence or "willful misconduct" of the Indemnitees. The County shall be consulted with regard to any proposed settlement.

The duty of the Contractor to indemnify and hold harmless the Indemnitees includes the separate and independent duty to defend the Indemnitees, which duty arises immediately upon receipt by

Contractor of the tender of any claim from the County. The Contractor's obligation to defend the County shall be at Contractor's sole expense, and not be excused because of the Contractor's inability to evaluate liability or because the Contractor evaluates liability and determines that the Contractor is not liable. The duty to defend shall apply whether or not a claim has merit or is meritless, or which involves claims or allegations that any or all of the Indemnitees were actively, passively, or concurrently negligent, or which otherwise asserts that the Indemnitees are responsible, in whole or in part, for any claim. The Contractor shall respond within thirty (30) calendar days to the tender of any claim for defense and/or indemnity by the County, unless the County agrees in writing to an extension of this time. The defense provided to the Indemnitees by Contractor shall be by well qualified, adequately insured, and experienced legal counsel acceptable to the County Counsel.

It is the intent of the parties to the Contract that the Contractor and its subcontractors of all tiers shall provide the Indemnitees with the broadest defense and indemnity permitted by law. In the event that any of the defense, indemnity, or hold harmless provisions are found to be ambiguous, or in conflict with one another, it is the parties' intent that the broadest and most expansive interpretation in favor of providing defense and/or indemnity to the Indemnitees be given effect.

Contractor shall ensure, by written subcontract agreement, that each of Contractor's subcontractors of every tier shall protect, defend, indemnify and hold harmless the Indemnitees with respect to all claims arising out, in connection with, or in any way related to each such subcontractor's work in the same manner in which Contractor is required to protect, defend, indemnify, and hold the Indemnitees harmless. In the event Contractor fails to obtain such defense and indemnity obligations from its subcontractors as required herein, Contractor agrees to be fully responsible to the Indemnitees according to the terms of this Section.

Contractor's indemnification and defense obligations set for in this Section are separate and independent from the insurance requirements and do not limit, in any way, the applicability, scope, or obligations set forth in such insurance requirements. The purchase of insurance by the Contractor with respect to the obligations required herein shall in no event be construed as fulfillment or discharge of such obligations.

Contractor's obligations under this Section are binding on Contractor's and its subcontractors' successors, heirs and assigns and shall survive the completion of the work or termination of the Contractor's performance of the work.

3.19 Signs and Advertising

Contractor shall not place or maintain any advertising signs, bills, or posters, nor shall it allow the same to be placed in or about the Project Site, or on any structure, fence, or barricade located on the Project Site, except as may be specified herein or approved in writing by the County, which approval shall not be unreasonably withheld, delayed, or conditioned. County shall have the right to reasonably approve the size, style, text, and location of any Contractor sign placed on the Project Site or on any structure, fence, or barricade located at the Project Site. Notwithstanding any other provision of the Contract Documents, County shall have complete discretion with respect to placement of Subcontractor and Sub-subcontractor signs on the Project Site.

3.20 Coordination with Neighboring Property

Contractor shall coordinate with adjoining property businesses, tenants, and their customers and contractors to provide access to neighboring property and shall implement measures to minimize disruption to operations and occupancy of neighboring property businesses, tenants, and their customers and contractors.

3.21 Nondiscrimination

During the term of the Contract, Contractor shall not discriminate against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, sexual orientation, age, or military and veteran status. Contractor shall comply with Executive Orders 11246, 11375, 11625, 12138, 12432, 12250, 13672, Title VII of the Civil Rights Act of 1964, the California Fair Housing and Employment Act and other applicable Federal, State and County laws and regulations and policies relating to equal employment and contracting opportunities, including laws and regulations hereafter enacted.

Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

3.22 Mandatory Provisions in Specifications

Any mention in the sections of the Specifications or indication on the Drawings of articles, materials, operations, or methods requires that the Contractor provide each item mentioned or indicated, or quality or subject or qualifications noted. The Contractor shall perform according to conditions stated each operation prescribed; and provide therefore all necessary labor, equipment, transportation and incidentals, even though such mention of articles, materials, operations, methods, quality, qualifications or conditions is not expressed in complete sentences.

3.23 Plans and Specifications

3.23.1 Unless otherwise provided in the Contract Documents, the County will furnish the Plans and Specifications to the successful Contractor on electronic media (CD) at no cost. If the successful Contractor requires a paper copy of the Plans and Specifications the Division will provide one copy without charge. Any additional paper copies will be provided by the Division to Contractor at \$0.10 per page.

3.23.2 Familiarity with Plans and Specifications.

3.23.2.1 Contractor shall carefully examine the Contract Documents, all applicable codes and the Site. The submission of a bid shall be conclusive evidence that the Contractor has investigated and has personal knowledge of the conditions to be encountered as to character, quality, scope of Work to be performed, and quantities of materials to be furnished. Submission of a bid also infers that the Contractor has knowledge of the use to which the Work is to be put, and the climatological conditions to which it shall be exposed. Any uncertainties by the Contractor shall be submitted to the County in writing at least eight (8) days (or within the time designated in the Advertisement for Bids, Instructions to Bidders, or otherwise in Bid Documents) prior to the opening of bids, and failure to do so constitutes a waiver of any future claim.

3.23.2.2 It shall be the responsibility of Contractor to be so thoroughly familiar with all details of the Project, including all Contractor and Subcontractor work, that the following shall be brought to the attention of the County for clarification in sufficient time to give the County time to respond before an error is made in the bid or in construction:

- (1) Errors and omissions in the Drawings and Specifications;
- (2) Work shown on the Drawings or in the Specifications which, if so constructed, would result in confusion or interference with other work or the work of other trades, including the location of fixtures and equipment.

(3) Any noted violations of applicable codes.

3.23.2.3 Changes to the Contract Sum will not be approved for the cost of correction work where such work could have been avoided by proper examination of the Drawings and Specifications by the Contractor, and the Work will be held in abeyance pending instructions from the County.

3.23.3 Interpretation of Plans and Specifications.

3.23.3.1 In general, the Drawings will show dimensions, positions, and kind of construction; and the Specifications will define materials, quantities, and methods. Any Work called for on the Drawings and not mentioned in the Specifications, or vice versa, shall be performed as though fully set forth in both. Work not particularly detailed, marked or specified, shall be the same as similar parts that are detailed, marked or specified.

3.23.3.2 Every part of the Work, as shown on the Drawings and described in the Specifications, must be complete and finished. No deviations are to be made from the Drawings or Specifications without previously obtaining written authorization from the County. Failure to obtain such written clarification from the County will constitute waiver of any claim by Contractor related to such conflict or inconsistency.

3.23.3.3 The Drawings shall be accurately followed as to scale, except where figures are given to determine dimensions, which in all cases shall be calculated from figures shown on the Drawings and take preference to scale measurements. Large scale details take precedence over small drawings in all cases, full-scale drawings have preference. Obvious discrepancies between scale and figured dimensions, not marked "not to scale," must be brought to the County's attention before proceeding with the Work affected by the discrepancy. Failure to submit any such discrepancies in writing shall constitute a waiver of future claims.

3.23.3.4 Architectural and structural Drawings take precedence over electrical and mechanical Drawings in regard to location and arrangement of fixtures, outlets, and equipment. Electrical and mechanical Drawings take precedence in describing and specifying equipment and in describing the diagrammatic requirements. If the Contractor has any question regarding precedence noted in this Paragraph, a written clarification shall be obtained from the County, and the failure to do so constitutes a waiver of any claim.

3.23.3.5 Should an error or inconsistency be found in the Specifications or Drawings, or in the Work done by others affecting Contractor's Work, the Contractor shall notify the County at once, and the County will issue instructions as to procedure. If the Contractor proceeds with the Work so affected without such instructions, it will make good any resulting damage or defects in his or adjacent work. This includes typographical errors in the Specifications and notational errors on the Drawings where doubtful of interpretation.

3.23.3.6 The general character of the detailed Work is shown on the Drawings, but minor modifications may be made in details when needed to more fully explain the Work and the same shall be considered part of the Contract. Should any detail submitted after award of Contract, in the opinion of the Contractor, be more elaborate than the scale Drawings and the Specifications indicate, written notice thereof shall be given to the County prior to the performing the Work pursuant to Article 7. The claim will then be considered and, if justified, said detail drawings will be amended or the extra work authorized. Contractor's failure to provide the County with the required notice shall relieve the County of any claim.

3.23.3.7 Where on any Drawing a portion of the Work is drawn out and the remainder is indicated in outline, the drawn-out parts shall apply also to all other like portions of the Work. Where ornament or other detail is indicated on starting only, such detail shall be continued throughout the course of parts in which it occurs and shall also apply to all other similar parts in the Work unless otherwise indicated.

3.23.4 Accuracy of Plans and Specifications

3.23.4.1 Omissions from the Plans and Specifications shall not relieve the Contractor from the responsibility of furnishing, making, or installing all items required by law or code or usually furnished, made or installed in a project of the scope and general character indicated by the Plans and Specifications.

3.23.4.2 The topography of Site and existence and location of utilities indicated on Plans are in accordance with the best information obtainable, but cannot be guaranteed. They shall be investigated and verified at the Site by the Contractor before starting the Work. The Contractor shall be held responsible for any damage to, and for maintenance and protection of, existing utilities, fences and remaining structures.

3.23.5 Division of Specifications.

For convenience, the Specifications are arranged in various trade sections, but such segregation shall not be considered as limiting the Work of any Subcontractor or trade. The Contractor shall be solely responsible for all Subcontractor arrangements of the Work regardless of the location or provision in the Specifications.

3.24 Contractor Responsibility

The Contractor shall be responsible for all acts and omissions of Contractor's agents, employees, and Subcontractors and their respective agents and employees.

3.25 Meetings

Construction meetings shall be held at the jobsite as scheduled by the County's Project Manager or as requested by the Contractor. Details regarding jobsite meetings will be arranged at the pre-construction conference.

3.26 Sanitation and Power Supply

3.26.1 Sanitation.

Adequate sanitary conveniences of an approved type for the use of persons employed on the Site, and properly secluded from the public observation, shall be provided and maintained by the Contractor in such a manner and at such points as shall be required by the County. These conveniences shall be maintained at all times without nuisance and their use shall be strictly enforced. Upon completion of the Work, they shall be removed from the premises, leaving the premises clean and free from nuisance.

3.26.2 Power Supply.

All electrical power required for construction uses or other purposes shall be provided by the Contractor at Contractor's expense.

3.27 Clean Air Act, Clean Water Act, Environmental Protection Agency, Energy Efficiency, and California State Water Resources Control Board

During the performance of this contract, the Contractor and all Subcontractors shall:

3.27.1 Comply with all applicable standards, orders, or requirements issued under the Clean Air Act of 1970 (including section 306), including all amendments, and all regulations implementing the Clean Air Act.

3.27.2 Comply with all applicable standards, orders, or requirements issued under the Clean Water Act of 1972 (including section 508), including all amendments, and all regulations implementing the Clean Water Act.

3.27.3 Comply with all applicable standards, orders, or requirements issued under Environmental Protection Agency regulations.

3.27.4 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 (Public Law 94-163), including all amendments, and all regulations implementing the Energy Policy and Conservation Act.

3.27.5 Comply with all requirements of the California State Water Resources Control Board, including the statewide General Permit for Discharges of Storm Waters Associated with Construction Sites (See Order No. 2009-009-DWQ). This includes, but is not limited to, paying all appropriate fees, filing all required documentation, and complying with all the regulations of the State Water Resources Control Board.

3.28 Travel Management Policy

Contractor shall adhere to the County's Travel Management Policy (08-02 and 08-02SP1) when travel is pursuant to this Contract and for which reimbursement is sought from the County. In addition, Contractor is encouraged to utilize local transportation services, including but not limited to, the Ontario International Airport.

4 ADMINISTRATION OF THE CONTRACT

4.1 County's Project Representative

The County's Project Manager identified by the County in writing is the County's Project Representative. The County's Project Manager shall serve as a single point transmission of County's instructions and approvals, and receive all information required to be provided by Contractor. County's Project Manager shall be on-site on an as-needed basis to monitor progress, quality of work, and Contract and schedule compliance.

4.2 Administration of the Contract

4.2.1 Site Visits. The County's Project Manager will visit the Site at intervals appropriate to the stage of the Contractor's operations to become familiar with the progress and quality of the portion of the Work completed and to determine if the Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents.

4.2.2 No Estoppel. Neither the County nor its Project Manager will be responsible for Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The County and its Project Manager will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any

other persons or entities performing portions of the Work. Approval and/or acceptance of all or any portion of the Work shall in no way relieve the Contractor from its obligation to construct each portion of the Work in accordance with the Contract Documents and the County shall not be estopped or otherwise prevented from asserting any claim it might have against the Contractor as a result of any such acceptance or approval.

4.2.3 Determination of Payment Amounts by Project Manager. The County's Project Manager will review Contractor's Application for Payment and determine the amount of payment due Contractor.

4.2.4 Rejection of Work Testing and Inspection. The County has the authority to reject Work that does not conform to the Contract Documents. Whenever the County considers it necessary or advisable, it will require inspection or testing of the Work in accordance with Paragraph 15.5 below, whether or not such Work is fabricated, installed or completed. However, neither this authority nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the County to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

4.2.5 Submittal Review. The County will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data, and Samples.

4.2.6 Contract Modifications. The County's Project Manager will prepare Change Orders, Construction Change Directives, and written amendments to the Contract. All Change Orders, Construction Change Directives, and written amendments to the Contract involving changes in the Contract Sum or Contract Time require approval by Director and/or Board.

4.2.7 Substantial Completion and Project Closeout. The County's Project Manager will conduct inspections to determine the date or dates of Substantial Completion and the date of Final Completion, review written warranties and related close-out documents required by the Contract and assembled by the Contractor, and will issue a final authorization for payment upon Contractor's satisfaction of the requirements of the Contract Documents.

4.3 Claims and Disputes

4.3.1 Definitions. The term "Claim" or "Claims" shall mean a separate demand by the Contractor for: (i) a time extension (ii) payment of money or damages arising from Work done by or on behalf of the Contractor pursuant to this Contract and payment of which is not otherwise expressly provided or the Contractor is not otherwise entitled to; or (iii) an amount the payment of which is disputed by the County.

4.3.2 Notification of Third-Party Claims. County shall provide Contractor with prompt written notice upon County's receipt of any third party claim relating to the Contract.

4.3.3 Notice and Time Limits on Claims. If the Contractor wishes to make a Claim for an increase in the Contract Sum or an extension of the Contract Time, the Contractor shall give the County written notice thereof within ten (10) calendar days after the occurrence of the event giving rise to such Claim. The written notice must comply with the requirements of this Article 4 and Article 8, if applicable, herein. This notice shall be given by the Contractor before proceeding to execute Work affected by the event, except in an emergency endangering life or property, in which case the Contractor shall proceed in accordance with Article 10 below.

4.3.4 Resolution. The County will issue a Change Order, a Construction Change Directive, or a written amendment to the Contract, to Contractor within a reasonable period of time after County's approval of any Claim, specifying the additional cost and/or time, if any, approved by County.

4.3.5 Continuing Contract Performance. Contractor shall not delay or postpone any Work pending resolution of any disputes or disagreements, except as the County and Contractor may otherwise agree in writing. Pending final resolution of a Claim, the Contractor shall proceed diligently with performance of the Contract and the County shall continue to make payments for undisputed Work in accordance with the Contract Documents. In the event of disputed work, County shall have the right to unilaterally issue a Construction Change Directive and Contractor shall continue performance pending resolution of the dispute and shall maintain the accounting and cost data described in Paragraph 7.4 herein.

4.3.6 Claims for Concealed or Unknown Conditions. The Contractor shall promptly, and before the following conditions are disturbed, notify the County, in writing, of any:

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

(2) Subsurface or latent physical conditions at the Site differing from those indicated by information about the Site made available to bidders prior to the deadline for submitting bids.

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

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

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

4.3.7 Claims for Additional Cost and/or Time.

4.3.7.1 General. If Contractor wishes to make a Claim for an increase in the Contract Sum and/or Contract Time, Contractor shall provide written notice within ten (10) calendar days, as provided in Paragraph 4.3.3 herein, before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Article 10. If the Contractor believes additional cost is involved for reasons including, but not limited to: (i) any written interpretation; (ii) a Verbal Change in the Work as more specifically described in Subparagraph 7.5.2 below; (iii) failure of payment by the County; or (iv) any order by the County to stop Work where the Contractor was not at fault, Contractor shall file Claims in accordance with the procedures established herein. Compliance with the

notice and Claim submission procedures described in this Paragraph is a condition precedent to the right to commence litigation, file a Government Code Claim, or commence any other legal action. No claim or issues not raised in a timely notice and timely Claim submitted under this Paragraph may be asserted in any Government Code Claim, subsequent litigation, or legal action.

4.3.7.1.1 The provisions of Section 4.3 and 4.4 constitute a non-judicial claim settlement procedure, and also step one of a two step claim presentment procedure by agreement under Section 930.2 of the California Government Code. Specifically, step one is compliance with this contract claims procedure and filing/administering timely contract claims in accordance with the Contract Documents. Step two is filing a timely Government Code Section 910 claim in accordance with the California Government Code. Any Government Code Section 910 claims shall be presented in accordance with the Government Code and shall affirmatively indicate Contractor's prior compliance with the claims procedure herein and previous dispositions under the claims procedure. These provisions shall survive termination, breach or completion of the Contract. Contractor shall bear all costs incurred in the preparation and submission of a claim.

4.3.7.2 Certification of Claim.

(1) Contractor, under penalty of perjury under the laws of the State of California, shall submit with the Claim its and its Subcontractors' certification that:

- (a) The Claim is made in good faith;
- (b) Supporting data are accurate and complete to the best of the Contractor's knowledge and belief; and
- (c) The amount requested accurately reflects the Contract adjustment for which the Contractor believes the County is liable.

(2) The certification shall be executed by an officer or general partner of the Contractor having overall responsibility for the conduct of the Contractor's affairs.

(3) If a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, California Government Code Sections 12650 et seq.) the County will be entitled to the remedies set forth in the California False Claims Act in addition to all other remedies provided by law. The Contractor may be subject to criminal prosecution.

(4) In regard to any Claim or portion of a Claim for Subcontractor work, the Contractor shall fully review said Claim and certify said Claim, under penalty of perjury under the laws of the State of California, to have been made in good faith and in accordance with this Contract.

(5) Failure to furnish certification as required hereinbefore will result in the Contractor waiving its rights to the subject Claim.

4.3.7.3 Content of Written Notice. Contractor shall waive all rights to assert a Claim for Additional Cost and/or Time unless such notice is given as required in this Section. The written notice shall set forth:

- (1) The date of the event or occurrence giving rise to the claim and, if applicable, the date when the event ceased;
- (2) The nature of the event or occurrence and reasons for which the Contractor believes additional cost and/or time will or may be due;
- (3) The quantification of the costs involved together with the accounting and cost data described in Section 7.4 herein;
- (4) A Critical Path Method ("CPM") schedule analysis supporting any request for any additional time; and
- (5) Contractor's plan for mitigating such costs and/or delay.

4.3.7.4 Back-up Documentation. In addition to the initial ten (10) day written notice required herein, Contractor shall submit detailed backup documentation for its Claim including, but not limited to, contract provisions, specifications, drawings, Request for Information, correspondence, meeting minutes, and the like, within thirty (30) calendar days from Contractor's initial written notice. Failure to provide either this backup documentation or an explanation acceptable to the County for the cause of the Contractor's delay in submitting this documentation as herein indicated shall constitute Contractor's waiver of any and all rights associated with the Claim. Except where provided by law, the County shall not be liable for special or consequential damages, and claims shall not include special or consequential damages.

4.3.7.5 Remedies Related to Delays.

- (1) For Claims relating to extensions of Contract Time, due to Compensable County-Caused delays, as described in Article 8 herein, Contractor may be entitled to an equitable adjustment of the Contract Sum and Contract Time provided Contractor otherwise complies with this Paragraph 4.3.
- (2) For Claims relating to extensions of Contract Time due to Non-Compensable Force Majeure events, as described in Article 8 herein, Contractor may be entitled to an equitable adjustment of the Contract Time, subject to the limitations set forth in Article 8 below, but shall not be entitled to adjustment of the Contract Sum.
- (3) For Claims relating to extensions of the Contract Time due to rain delays/inclement weather, Contractor shall not be entitled to adjustment of the Contract Time unless and until the number of unworkable days due to the effects of rain/inclement weather exceed the number of days set forth in Subparagraph 8.4.1.3 below. In such event, the Contract Time shall be equitably adjusted, but Contractor shall not be entitled to adjustment of the Contract Sum.

4.4 Dispute Resolution

4.4.1 Claims between the County and the Contractor of \$375,000.00 or less shall be resolved in accordance with the procedures established in Part 3, Chapter 1, Article 1.5 of the California Public Contract Code Sections 20104 et seq.; provided however that California Public Contract Code Section 20104.2(a) shall not supersede the requirements of the Contract Documents with respect to the Contractor's notification to the County of such claim or extend the time for giving of such notice as provided in the Contract Documents.

4.4.1.1 Pursuant to Public Contract Code Section 20104(c), the current provisions of Article 1.5 of Chapter 1 of Part 3 of the Public Contract code (commencing with Section 20104) dealing with the mediation and arbitration of public works claims are incorporated herein and applicable provisions are set forth below.

Public Contract Code Section 20104 (a)(1): This article applies to all public works claims of three hundred seventy-five thousand dollars (\$375,000) or less which arise between a contractor and a local agency.

(2) This article shall not apply to any claims resulting from a contract between a contractor and a public agency when the public agency has elected to resolve any disputes pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2.

(b)(1) "Public work" means "public works contract" as defined in Section 1101 but does not include any work or improvement contracted for by the state or the Regents of the University of California.

(2) "Claim" means a separate demand by the contractor for (A) a time extension, (B) payment of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public work and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (C) an amount the payment of which is disputed by the local agency.

Public Contract Code Section 20104.2: For any claim subject to this article, the following requirements apply:

(a) The claim shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims.

(b)(1) For claims of less than fifty thousand dollars (\$50,000), the local agency shall respond in writing to any written claim within 45 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

(c)(1) For claims of over fifty thousand dollars (\$50,000) and less than or equal to three hundred seventy-five thousand dollars (\$375,000), the local agency shall respond in writing to all written claims within 60 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 30 days after receipt of the further documentation, or within a period of time no greater than that taken by the claimant in producing the additional information or requested documentation, whichever is greater.

(d) If the claimant disputes the local agency's written response, or the local agency fails to respond within the time prescribed, the claimant may so notify the local agency, in writing, either within 15 days of receipt of the local agency's response or within 15 days of the local agency's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the local agency shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(e) Following the meet and confer conference, if the claim or any portion remains in dispute, the claimant may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the claimant submits his or her written claim pursuant to subdivision (a) until the time that claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

(f) This article does not apply to tort claims and nothing in this article is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.

Public Contract Code Section 20104.4: The following procedures are established for all civil actions filed to resolve claims subject to this article:

(a) Within 60 days, but no earlier than 30 days, following the filing or responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.

(b)(1) If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act (Title 4 (commencing with Section 2016.010) of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

(2) Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall be paid equally by the parties, except in the case

of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by state or county funds.

(3) In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, any party who after receiving an arbitration award requests a trial de novo but does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, pay the attorney's fees of the other party arising out of the trial de novo.

(c) The court may, upon request by any party, order any witnesses to participate in the mediation or arbitration process.

Public Contract Code Section 20104.6: (a) No local agency shall fail to pay money as to any portion of a claim which is undisputed except as otherwise provided in the contract.

(b) In any suit filed under Section 20104.4, the local agency shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

4.4.1.2 Pursuant to Assembly Bill 626 (2015-2016 Reg. Sess.) the text of Public Contract Code section 9204 is included as follows:

(a) The Legislature finds and declares that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner.

(b) Notwithstanding any other law, including, but not limited to, Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2, Chapter 10 (commencing with Section 19100) of Part 2, and Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3, this section shall apply to any claim by a contractor in connection with a public works project.

(c) For purposes of this section:

(1) "Claim" means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

(A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.

(B) Payment by the public entity of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.

(C) Payment of an amount that is disputed by the public entity.

(2) "Contractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.

(3) (A) "Public entity" means, without limitation, except as provided in subparagraph (B), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit

corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.

(B) "Public entity" shall not include the following:

- (i) The Department of Water Resources as to any project under the jurisdiction of that department.
- (ii) The Department of Transportation as to any project under the jurisdiction of that department.
- (iii) The Department of Parks and Recreation as to any project under the jurisdiction of that department.
- (iv) The Department of Corrections and Rehabilitation with respect to any project under its jurisdiction pursuant to Chapter 11 (commencing with Section 7000) of Title 7 of Part 3 of the Penal Code.
- (v) The Military Department as to any project under the jurisdiction of that department.
- (vi) The Department of General Services as to all other projects.
- (vii) The High-Speed Rail Authority.

(4) "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.

(5) "Subcontractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

(d) (1) (A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision.

(B) The claimant shall furnish reasonable documentation to support the claim.

(C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.

(D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.

(2) (A) If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(B) Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed.

Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

(C) For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

(D) Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

(E) This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

(3) Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

(4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

(5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

(e) The text of this section or a summary of it shall be set forth in the plans or specifications for any public works project that may give rise to a claim under this section.

(f) A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

(g) This section applies to contracts entered into on or after January 1, 2017.

(h) Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

(i) This section shall remain in effect only until January 1, 2020, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2020, deletes or extends that date.

4.4.2 Except as provided for in Subparagraph 4.4.1, any other claims, disputes or other matters in controversy shall be resolved as follows. In lieu of, or prior to litigation, the Parties shall endeavor to settle disputes by mediation in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect unless the Parties mutually agree otherwise to a different method of alternative dispute resolution. Mediation shall be non-binding and utilize services of a mediator mutually acceptable to the Parties. If the Parties cannot agree on a mediator, then the American Arbitration Association shall appoint a mediator trained in construction industry disputes.

4.4.3 Any dispute which cannot be resolved between the Parties shall be resolved through litigation in a court of competent jurisdiction of the State of California. Venue for any such litigation concerning this Project or Agreement shall be in the Superior Court of California, San Bernardino County, San Bernardino District and Contractor agrees to incorporate this provision into all subcontracts.

4.4.3.1 Each Party hereby waives any law or rule of court that would allow them to request or demand a change of venue. If any third party brings an action or claim concerning this Contract, the Parties hereto agree to use their best efforts to obtain a change of venue to the Superior Court of California, San Bernardino County, San Bernardino District.

5 SUBCONTRACTORS

5.1 Award of Subcontracts

5.1.1 Subcontractor Listing. The Contractor shall list its Subcontractors, and shall make no substitution except in accordance with Public Contract Code Sections 4100 et seq. ("Subcontractor Listing Law").

5.1.1.1 Substitution Process. Any request of the Contractor to substitute a listed Subcontractor will be considered by the County only if such request is in strict conformity with this Paragraph 5.1 and Chapter 4 of the California Public Contract Code (commencing with Section 4100). All costs and fees, including all costs of the hearing, incurred by the County in the review and evaluation of a request to substitute a listed Subcontractor shall be borne by the Contractor; such costs and fees may be deducted by the County from the Contract Sum then or thereafter due the

Contractor. For purposes of a hearing for the substitution of subcontractors (pursuant to the Public Contract Code commencing with Section 4100) the awarding authority shall be the Director of the Project and Facilities Management Department, or his/her designee.

5.1.1.2 Responsibilities of Contractor upon Substitution of Subcontractor. Neither the substitution nor the County's consent to Contractor's substitution of a listed Subcontractor shall relieve Contractor from its obligation to complete the Work within the Contract Time and for the Contract Sum. In the event that the County determines that revised or additional Submittals are required of the newly substituted Subcontractor, the County shall promptly notify the Contractor, in writing, of such requirement and the time for Submittal. In the event that the revised or additional Submittals are not submitted by Contractor within the time specified, Contractor shall be solely responsible for delays in the Work arising from the untimely Submittal. Contractor shall reimburse the County for all fees and costs incurred or associated with the processing, review and evaluation of any revised or additional Submittals required pursuant to this paragraph; the County may deduct such fees and costs from any portion of the Contract Sum then or thereafter due the Contractor. In the event that additional or revised Submittals are required pursuant to this paragraph, such requirement shall not result in an increase to the Contract Time or the Contract Sum.

5.2 Subcontractor Relations

5.2.1 Agreements. By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by Contract Documents, assumes toward the County. Each such agreement shall preserve and protect the rights of the County under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the County. The Contractor shall require each Subcontractor to enter into similar agreements with their Sub-subcontractors. The Contractor shall make available to each Subcontractor, prior to the execution of the agreement, copies of the Contract Documents to which the Subcontractor will be bound by this Paragraph. At a minimum, each agreement shall:

- (1) Require that the Work being performed pursuant to such agreement, as the case may be, be performed in accordance with the requirements and intent of the Contract Documents and provide no less than five percent (5%) retainage unless otherwise indicated in Agreement between the County and Contractor;
- (2) Require submissions of Applications for Payment in the form required by the Contract Documents, together with invoices and billings supporting such applications and conditional and unconditional lien releases in the form required by the Contract Documents completed by it and by its Sub-Subcontractors as a condition to the disbursement of any progress payment next due and owing to it;
- (3) Require the Subcontractor, Sub-Subcontractor or supplier, as the case may be, to maintain insurance coverage as provided in the Contract Documents and to file required certificates of such coverage and additional insured

endorsements with County, and, upon County's request, to provide copies of such insurance policies to County.

- (4) Require each Subcontractor, Sub-Subcontractor, and supplier to furnish to Contractor or the applicable Subcontractor, as the case may be, in a timely fashion all information necessary for transmittal of Submittals and the reports required herein;
- (5) Require that each Subcontractor and supplier continue to perform under its subcontract if the Contract is terminated and if County takes an assignment of the subcontract or supply agreement and requests the Subcontractor or supplier to continue such performance;
- (6) Require each Subcontractor, Sub-Subcontractor, and supplier to remove all debris created by its activities;
- (7) Provide that in the event that County accepts the conditional assignment of the subcontract, County shall only be responsible to the Subcontractor for those obligations that accrue subsequent to County's acceptance of the assignment;
- (8) Require the Subcontractor to resolve all disputes involving County according to the dispute resolution procedure established in Paragraph 4.4 herein;
- (9) Contractor shall cause each subcontract to expressly include the following requirement:

"The County and entities and agencies designated by the County shall have access to and the right to audit and the right to copy at the County's cost all of Subcontractor's and supplier's books, records, contracts, correspondence, instructions, Drawings, receipts, vouchers, purchase orders, and memoranda relating to the Work. Subcontractor shall preserve all such records and other items for a period of at least five (5) years after Final Completion." and
- (10) Require the Subcontractor engaged upon the Site to arrange the storage of materials and equipment and performance of his Work so as to interfere as little as possible with other persons engaged in Work for the County upon the same Site.

5.2.2 Precedence. If any provision of any Subcontractor supply agreement is inconsistent with any provision of the Contract Documents or the intent of the Contract Documents, then the Contract Documents shall control.

5.2.3 Payments. Contractor shall make payment to Subcontractor within seven (7) days of receipt of each progress payment, in accordance with Public Contract Code Section 10262 and Business and Professions Code Section 7108.5. County hereby reserves the right, upon written notice to Contractor, to make, at any time, and from time-to-time, payments directly to each Subcontractor, and, if such rights shall be exercised by County, then such amount shall be credited against the Contract Sum due to Contractor hereunder and County shall be relieved and released from the obligation to make such payment to Contractor and Contractor shall be relieved and released as to County from the obligation to make such payments to each Subcontractor paid by County, but not from any of the other obligations and responsibilities of Contractor to County under the Contract Documents.

5.2.4 Contractor Responsibility. The Contractor shall be responsible for all acts and omissions of Subcontractors and for all Contract Work regardless of any subcontracts. All interest of the County in the Subcontractor's work shall be coordinated through the Contractor.

5.3 Contingent Assignment of Subcontractor and Material Supply Agreements

Each Subcontractor and supplier agreement for a portion of the Work is assigned by the Contractor to the County provided that:

- (1) Assignment is effective only after termination of the Contract by the County only for those subcontracts which the County accepts by notifying the Subcontractor or supplier, and Contractor in writing;
- (2) Assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract; and
- (3) Upon exercise of this right of assignment, County has the right to reassign the agreement.

6 CONSTRUCTION BY COUNTY OR BY SEPARATE CONTRACTORS

6.1 County's Right to Perform Construction and to Award Separate Contracts

6.1.1 County's Right to Perform. The County reserves the right to perform construction or operations related to the Project with the County's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the Site. If the Contractor claims that delay or additional cost is involved because of such action by the County, the Contractor shall make such Claim as provided in Paragraph 4.3 herein.

6.1.2 Reserved.

6.1.3 Coordination. The County shall provide for coordination of the activities of the County's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other Separate Contractors and the County in reviewing their construction schedules when directed to do so. The Contractor shall make any revisions to the Construction Schedule deemed necessary after a joint review and mutual agreement. Upon County's written approval, the revised Construction Schedule shall then constitute the schedule to be used by the Contractor, Separate Contractors, and the County until subsequently revised and approved by County.

6.1.4 Cooperation. Each Contractor or Subcontractor engaged upon the Site shall arrange the storage of materials and equipment and performance of his work so as to interfere as little as possible with other persons engaged in work for the County upon the same Site.

6.2 County's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the County as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the County may clean up and allocate the cost among those responsible.

6.3 Independent Testing

6.3.1 County Testing. The County will employ and pay for services of an independent testing laboratory to perform services specifically required by the specifications, as detailed in the Specification, and as additionally requested by County.

6.3.2 Contractor Duties. The Contractor shall:

- (1) Notify the County and the testing laboratory sufficiently in advance of the required test to allow for its assignment of personnel and scheduling of tests;
- (2) Cooperate with testing and inspection personnel provide access to the Work and to offsite fabrication facilities;
- (3) Furnish copies and records of mill test reports;
- (4) Employ and pay for services of the same independent testing laboratory to perform additional inspections, sampling, and testing required when initial tests indicate Work does not comply with Contract requirements;
- (5) Be responsible for all scheduling of inspections and tests; and
- (6) Not proceed with Work requiring inspection if the appropriate inspector is absent.

6.3.3 Material testing. All material testing which conforms to or meets specified standards in the following categories shall be paid for by the County. Material tests in the following categories which fail to meet specified standard shall be paid for by the Contractor:

- (1) Soil density tests
- (2) Concrete compression tests
- (3) Grout compression tests
- (4) Mortar compression tests
- (5) Testing of masonry units
- (6) Testing of reinforcing steel
- (7) Structural steel
- (8) Anchors and fasteners

Unless stated otherwise in the Contract Documents, any other required or specified tests shall be paid by the Contractor and shall be performed by a qualified testing laboratory approved by the County.

7 CHANGES IN THE WORK

7.1 General

7.1.1 County's Right to Order Changes. The County, without invalidating the Contract, may authorize changes in the Work consisting of additions, deletions, or other revisions, with the Contract Sum and Contract Time being adjusted accordingly, if necessary. All such changes in the Work shall be authorized by Change Order, Construction Change Directive, or Written Amendment to Contract, and Contractor shall perform such changes in the Work according to the applicable requirements of the Contract Documents. The County is not required to provide notice to Contractor's sureties of Change Orders, Contract Change Directives or Written Amendment to Contract.

7.1.2 Basis for Agreement. A Change Order or Written Amendment to Contract shall be based upon agreement between the County and Contractor. A Construction Change Directive may or may not be agreed to by the Contractor.

7.1.3 No Estoppel. Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with the change, unless otherwise provided in the Change Order, Construction Change Directive, or Written Amendment to Contract. A change in the Contract Sum or the Contract Time shall be accomplished only by Change Order, Construction Change Directive, or Written Amendment to Contract. Accordingly, no course of conduct or dealings between the Parties, nor express or implied acceptance of alterations or additions to the Work and no Claim that the Contract has been abandoned or the County has been unjustly enriched by any alteration or addition to the Work shall be the basis of any Claim to an increase in any amounts due under the Contract Documents or a change in any time period provided for in the Contract Documents.

7.1.4 Change in Work. The County may at any time make any change, modification or addition to the Work by written Change Order, Construction Change Directive, or Written Amendment to Contract, including but not limited to changes:

- (1) in the Specifications or Drawings;
- (2) in the sequence, method or manner of performance of the Work;
- (3) in the County furnished facilities, equipment, materials, services or Site; or
- (4) directing acceleration in the performance of the Work.

7.2 Change Orders

7.2.1 Computation. Methods used in determining adjustments to the Contract Sum by Change Order or Written Amendment to Contract may include those listed in Paragraph 7.4 below.

7.2.2 Accord and Satisfaction. Agreement on any Change Order or Written Amendment to Contract shall be a full compromise and settlement of all adjustments to Contract Time and Contract Sum, and compensation for any and all delay, extended or additional field and home office overhead, disruption, acceleration, inefficiencies, lost labor or equipment productivity, differing site conditions, construction interferences and other extraordinary or consequential damages (hereinafter called "Impacts"), including any ripple or cumulative effect of said Impacts on the overall Work under the Contract

arising directly or indirectly from the performance of Work described in the Change Order or Written Amendment to Contract. By execution of any Change Order or Written Amendment to Contract, Contractor agrees that the Change Order or Written Amendment to Contract constitutes a complete accord and satisfaction with respect to all claims for schedule extension, Impacts, or any costs of whatsoever nature, character or kind arising out of or incidental to the Change Order or Written Amendment to Contract. No action, conduct, omission, product failure or course of dealing by the County shall act to waive, modify, change, or alter the requirement that (i) Change Orders, Construction Change Directive, or Written Amendment to Contract must be in writing, signed by the County and Contractor and; (ii) that such written Change Orders, Construction Change Directives, or Written Amendment to Contract are the exclusive method for effectuating any change to the Contract Sum and/or Contract Time.

7.3 Construction Change Directives

7.3.1 Use. A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

7.3.2 Duty to Proceed. Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the Work involved and advise the County of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

7.3.3 Disagreement. If the Contractor does not promptly indicate its disagreement with the method of pricing provided in the Construction Change Directive, Contractor shall be deemed to agree with the method of pricing the change. If the Contractor indicates its disagreement with the method of pricing or if no method of pricing is provided in the Construction Change Directive, the increase in cost or credit to the Contract Sum for the change shall be determined by cost in accordance with Subparagraph 7.4.1(3) and the provisions of Subparagraphs 7.4.2, 7.4.3 and 7.4.4 shall apply to the change.

7.3.4 Agreement. A Construction Change Directive is effective immediately whether or not it is signed by the Contractor. If the Contractor signs a Construction Change Directive such agreement shall be effective immediately and shall be recorded as a Change Order.

7.4 Computation of Cost or Credit for Changes

7.4.1 Cost or Credit. The cost or credit to the County resulting from a change in the Work shall be determined by County by one or more of the following methods:

- (1) Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- (2) Unit prices stated in the Contract Documents or subsequently agreed upon;
- (3) By cost, as defined in (a), (b), (c) and (d) below, properly itemized and supported by sufficient substantiating data to permit evaluation, plus agreed to markup for overhead and profit as defined in (e) below. Such costs shall be itemized by craft directly allocable to the change in the Work:
 - (a) Cost of materials, including cost of transportation and delivery;

- (b) Cost of labor, including social security, and unemployment insurance, and fringe benefits required by agreement and Workers' Compensation insurance;
- (c) Rental value of equipment and machinery, exclusive of hand tools;
- (d) Sales tax; insurance; permit costs and bond premiums;
- (e) Mark-up to Contractor, Subcontractors, and Sub-subcontractor for overhead, profit and other expenses which are not specifically included in (a) through (d) above shall not exceed the following amounts:
 - (i) Fifteen (15%) of the cost of that portion of the Extra Work to be performed by the Contractor with its own forces.
 - (ii) Fifteen percent (15%) of the cost of that portion of the Work to be performed by a Subcontractor or Sub-subcontractor with its own forces, plus 5% for the Contractor. Total combined Contractor, Subcontractor, and Sub-subcontractor fee shall not exceed 20%.
- (f) Cost of Extra Work ~~shall not include~~ any of the following:
 - (i) Superintendent(s)
 - (ii) Assistant Superintendent(s)
 - (iii) Project Engineer(s)
 - (iv) Project Manager(s)
 - (v) Scheduler(s)
 - (vi) Estimator(s)
 - (vii) Incidental Drafting or Detailing
 - (viii) Small tools (Replacement value does not exceed \$300)
 - (ix) Office expenses including staff, materials and supplies
 - (x) On-Site or off-site trailer and storage rental and expenses
 - (xi) Site fencing
 - (xii) Utilities including gas, electric, sewer, water, telephone, facsimile, copier equipment
 - (xiii) Data processing personnel and equipment
 - (xiv) Federal, state, or local business income and franchise taxes

7.4.2 Credits. The amount of credit to be allowed by the Contractor to the County for a deletion or change, which results in a net decrease in the Contract Sum, shall be actual net cost as determined herein. The amount of deduct/credit for liquidated damages shall be in accordance with the Agreement. When both additions and credits covering related

Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase/decrease, if any, with respect to that change.

7.4.3 Contractor Maintenance of Records. In the event that Contractor is directed to perform any changes to the Work, or should Contractor encounter conditions which the Contractor believes would obligate the County to adjust the Contract Sum and/or the Contract Time, Contractor shall maintain detailed records of the cost of such changes on a daily basis. Such records shall include without limitation hourly records for labor and construction equipment and itemized records of materials and equipment used each day in connection with the performance of any change to the Work. In the event that more than one change to the Work is performed by the Contractor in a calendar day, Contractor shall maintain separate records of labor, construction equipment, materials, and equipment for each such change. In the event that any Subcontractor or Sub-subcontractor, of any tier, shall provide or perform any portion of any change to the Work, Contractor shall require that each such Subcontractor and Sub-subcontractor maintain records in accordance with this Article. Each daily record maintained hereunder shall be signed by Contractor's Project Representative; such signature shall be deemed Contractor's representation and warranty that all information contained therein is true, accurate, complete, and relates only to the change referenced therein. All records maintained by a Subcontractor and Sub-subcontractor, of any tier, relating to the costs of a change in the Work shall be signed by such Subcontractor's authorized Project Manager or Superintendent. Such records shall be forwarded to County's Project Manager on the day the Work is performed (same day) for independent verification. In the event that Contractor shall fail or refuse, for any reason, to maintain or make available for inspection, review, and/or reproduction such records, adjustments to the Contract Sum or Contract Time, if any, on account of any change to the Work shall be determined by County which shall be binding upon Contractor. Contractor's obligation to maintain records hereunder is in addition to, and not in lieu of, any other Contractor obligation under the Contract Documents with respect to changes to the Work.

7.4.4 Payment of Undisputed Amounts. Pending final determination of the total cost of a Change, amounts not in dispute for such changes in the Work shall be included in Applications for Payment accompanied by an approved Change Order, Construction Change Directive or Written Amendment to Contract, indicating the Parties' agreement with part or all of such costs.

7.5 Authority to Approve Changes

7.5.1 County's Project Manager's Authority. The County's Project Manager must authorize any change in the Work. Such changes shall be effected by written order approved by the Director or San Bernardino County Board of Supervisors and shall be binding on the Contractor.

7.5.2 Verbal Changes. Any oral order, direction, instruction, interpretation, or determination from the County (collectively "Verbal Change") which, in the opinion of the Contractor, causes a Scope Change in the Work, or otherwise requires an adjustment to the Contract Sum or the Contract Time, shall be treated as a Change Order Request only if the Contractor gives the County written notice within ten (10) calendar days of the Verbal Change and prior to acting in accordance therewith. Time is of the essence in Contractor's written notice pursuant to the preceding sentence, so that the County can promptly investigate and consider alternative measures to address the Verbal Change giving rise to Contractor's notice. Accordingly, Contractor acknowledges that its failure, for any reason, to give written notice within ten (10) calendar days of such Verbal Change shall be deemed Contractor's waiver of any right to assert or Claim any entitlement to an adjustment of the Contract Time or the Contract Sum on account of such Verbal Change. The written notice shall state the date, circumstances, extent of adjustment to the

Contract Sum or the Contract Time, if any, requested and the source of the Verbal Change. Any such Verbal Change shall not be treated as a change and the Contractor hereby waives any Claim for any adjustment to the Contract Sum or the Contract Time on account thereof.

7.5.3 Unauthorized Work. Any Work performed by the Contractor not indicated on the Contract Documents or any changes in the Work performed or provided by the Contractor without notice to the County and written approval by County, shall be considered unauthorized by the County and performed at the sole expense of the Contractor. Unauthorized work so performed will not be measured or paid for and no extension of Contract Time will be granted on account thereof. Any such unauthorized work may be ordered removed at the Contractor's sole cost and expense. The failure of the County to direct or order removal of such unauthorized work shall not constitute acceptance or approval of such work nor relieve the Contractor from any liability on account thereof.

7.6 County Originated Proposal Request

County may issue a request, in writing, to Contractor, describing a proposed change to the Work and requesting the Contractor submit an itemized proposal in a format acceptable to County within ten (10) calendar days after County issues the request. The Contractor's proposal shall include an analysis of impacts to Contract Sum and Contract Time, if any, to perform additional work, or delete Work, as applicable, including the effects and impacts, if any, on unchanged Work, estimates of costs (broken down by the cost categories listed in the Agreement and/or Paragraph 7.4 herein), and Contractor's proposed methods to minimize costs, delay, and disruption to the performance of the Work. If Contractor fails to submit a written proposal within such period of time, it shall be presumed that the change described in the County's original proposal request will not result in an increase to the Contract Sum or Contract Time and the change shall be performed by Contractor without additional compensation. County's proposal request does not authorize the Contractor to commence performance of the change, unless otherwise specified in writing. If County desires that the proposed change be performed, the Work shall be authorized according to the Change Order or Construction Change Directive procedures set forth above.

7.7 Contractor Originated Change Order Request (COR)

If the Contractor alleges that instructions issued by the County after the effective date of the Contract may result in changes to the Contract Sum or Contract Time or if the Contractor otherwise becomes aware of the need for or desirability of a change in the Work, Contractor may submit a written Change Order Request ("COR") to the County in writing, in a format acceptable to County and in accordance with the notice provisions and other requirements of Paragraph 4.3 above for Claims. The COR must specify the reasons for the proposed change, cost impacts and relevant circumstances and impacts on the Construction Schedule. The document shall be complete in its description of the Work, its material and labor quantities and detail, and must support and justify the Costs and credits claimed by the Contractor. A CPM schedule fragnet is required to support and justify any additional Contract Time of performance requested by the Contractor. The County will not review any COR which is incomplete. The Contractor may request additional compensation and/or time through a COR but not for instances that occurred more than ten (10) calendar days prior to the notice date. Contractor's failure to initiate a COR within this ten-day period or to provide detailed back-up documentation to substantiate the COR within thirty (30) calendar days of the initial written notice shall be deemed a waiver of the right to adjustment of the Contract Sum or the Contract Time for the alleged change. Any COR that is approved by the County will be incorporated in a Change Order, Construction Change Directive or Written Amendment to Contract. If the COR is denied by the County, the Contractor shall not proceed with the Work described in the COR.

7.8 Audit Rights

With respect to any Change Order, Construction Change Directive or Written Amendment to Contract resulting in an increase in the Contract Sum, the Contractor shall afford (and shall require its Subcontractors to afford) access to the County at all reasonable times to any books, correspondence, instructions, receipts, vouchers, memoranda and records of any kind relating thereto, all of which shall be maintained by the appropriate parties for a period of at least five (5) years from and after the date the County makes payment on account of such Change Order, Construction Change Directive or Written Amendment to Contract. The Contractor authorizes the County (and shall require its Subcontractors to authorize the County) to check directly with any suppliers of labor and material with respect to any item chargeable to the County, to confirm balances due and to obtain sworn statements and waiver of liens, all if the County so elects.

8 SCHEDULE AND EXTENSIONS OF TIME

8.1 Definitions

8.1.1 Contract Time. The Contract Time is the period of time allocated in the Contract Documents from the date of commencement provided in County's Notice to Proceed for Final Completion of the Work.

8.1.2 Commencement. The Date of Commencement of the Work is the date provided in County's Notice to Proceed.

8.1.3 Substantial Completion. The date of Substantial Completion is the date determined by County and certified by the County in accordance with Paragraph 9.6 below and the terms of this Agreement.

8.2 Progress and Completion

8.2.1 Time is of the Essence. Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement and any Modifications relating to Substantial Completion or Contract Time the Contractor agrees and confirms that the Contract Time is a reasonable period for performing the Work and that Contractor is able to complete the Work by that date.

8.2.2 Commencement. The Contractor shall not knowingly prematurely commence operations on the Site or elsewhere prior to the effective date of insurance and bonds required to be furnished by the Contractor to County as specified in the Agreement. The Date of Commencement of the Work shall not be changed by the effective date of such insurance and bonds.

8.2.3 Completion. The Contractor shall proceed expeditiously with adequate labor and supervision to achieve Final Completion within the Contract Time.

8.2.4 Notice to Proceed. The Contract shall commence the Work required by this Contract within ten (10) calendar days of the date specified in the notice from the County to proceed with the Work.

8.2.5 Expeditious Work. Contractor shall proceed expeditiously with adequate forces and shall complete the Work by the date specified in the Contract Documents. If Contractor is not diligently proceeding with the prosecution of the Work as scheduled, Contractor shall, immediately and at no additional cost to the County, take measures necessary, including working such overtime, and additional shifts as may be required to correct such delays.

8.3 Contractor's Schedules

8.3.1 Project Schedule. Unless otherwise provided in the Agreement or Technical Specifications, within fourteen (14) calendar days after the Date of Commencement, Contractor shall submit a baseline Project Schedule for the Work for comment and approval by County. The baseline Project Schedule shall include, but not be limited to:

- (1) A CPM format that incorporates all activities with descriptions, sequence, logic relationships, duration estimates, resource-loading, and other information required for all pre-construction and construction activities.
- (2) Activities to be integrated and shown in the CPM network shall include all milestones representing the Contractor's submittal dates and activities representing the County's review period of each submittal (which review period shall in no case be scheduled for less than 15 working days); Contractor's procurement of materials and equipment; submittals; manufacture and/or fabrication, testing and delivery to the jobsite of special material and major equipment; equipment installation and preliminary, final and performance testing of equipment or systems.
- (3) Activities showing the start and finish dates for all temporary works; all construction of mock-ups, and prototypes and/or samples.
- (4) Activities showing start and finish dates of owner-furnished items and interface requirements dates with other contractors; regulatory agency approvals; and permits required for the performance of the work.
- (5) Activities showing start and finish of tenant programming (as appropriate), modular furniture, tenant improvement work and phased occupancy.
- (6) Close-out activities.
- (7) The schedule shall consider all foreseeable factors or risks affecting or which may affect the performance of the work, including historical and predicted weather conditions, Applicable Laws, regulations or collective bargaining agreements pertaining to labor, transportation, traffic, air quality, noise and any other applicable regulatory requirements.
- (8) The Contractor shall attach a narrative report which explains assumptions used for activity durations, its assumptions regarding crew sizes, equipment requirements and production rates, any potential areas of concern or specific areas requiring coordination it may have identified and any long-lead time materials or equipment.
- (9) Time units for all schedules shall be in calendar days, and no construction activity shall have a duration greater than 30 calendar days without County approval.

Upon the County's approval, the Project Schedule shall be deemed to be a Contract Document. Any revisions or updates to the Project Schedule are subject to review and approval by County.

8.3.1.1 The County's review of the form and general content of the baseline Project Schedule is for the purpose of determining, in its judgment, whether the following requirements are satisfied:

- (1) Schedules are suitable for monitoring progress of the Work;
- (2) Schedules provide necessary data about the timing of the County's decisions on the County furnished items, including furniture, equipment and occupancy;
- (3) Schedules are in sufficient detail to demonstrate adequate planning for the Work; and
- (4) Schedules represent a practical plan to complete the Work within the Contract Time.

8.3.1.2 Contractor shall plan, develop, supervise, control, and coordinate the performance of the Work so that the progress and the sequence and timing of Work activities conform to the current accepted Project Schedule. Contractor shall continuously obtain from Subcontractors information and dates about the planning for and progress of the Work, the ordering and fabrication of materials, required Submittals, and the delivery of equipment, shall coordinate and integrate such information and data into updated Project Schedules and "As-Built" Drawings and specifications, and shall monitor the progress of the Work and the delivery of equipment. Contractor shall act as the expeditor of potential and actual delays, interruptions, hindrances, or disruptions for its own forces and those forces of Subcontractors, regardless of tier. Contractor shall cooperate with the County in the development of the Project Schedule and updated Project Schedules.

8.3.1.3 The County's acceptance of or its review comments about any Project Schedule or scheduling data shall not relieve Contractor from its sole responsibility to plan for, perform, and complete the Work by the Contract Time. Acceptance of or review comments about any Project Schedule shall not transfer responsibility for any Project Schedule to the County nor imply their agreement with (1) any assumption upon which such schedule is based on or (2) any matter underlying or contained in such schedule.

8.3.1.4 Failure of the County to discover errors or omissions in schedules that it has reviewed, or to inform Contractor that Contractor, Subcontractors, or others are behind schedule, or to direct or enforce procedures for complying with the Project Schedule shall not relieve Contractor from its sole responsibility to perform and complete the Work by the Contract Time and shall not be a cause for an adjustment of Contract Time or the Contract Sum.

8.3.2 Format. Unless otherwise provided in the Agreement or Technical Specifications, the Project Schedule shall be in a detailed precedence CPM or Microsoft type format satisfactory to the County, which shall also: (i) provide a graphic representation of all activities and events that will occur during performance of the Work; (ii) identify each phase of construction and maintenance; and (iii) set forth dates that are critical in ensuring the timely and orderly completion of the Work in accordance with the requirements of the Contract Documents (hereinafter referred to as Milestone Dates). At a minimum the Project Schedule shall depict the schedule for Work on a discipline by discipline and trade by trade basis and tasks within each discipline and trade. The Project Schedule shall include: (i) proposed activity sequences and durations; (ii) Milestone Dates for receipt and approval of pertinent information, including County-supplied information and approvals by public authorities having jurisdiction over the Project; (iii) dates for preparation and processing of Shop Drawings, Product Data, and Samples; (iv) dates for delivery of materials or equipment requiring long-lead time procurement; (v) County's occupancy/use requirements showing portions of the Project having occupancy priority; (vi) the estimated date of Substantial Completion and Final Completion; and (vii) other information reasonably required by County. Upon review and acceptance by the County of the baseline Project Schedule, the baseline Project

Schedule shall be deemed part of the Contract Documents. If not accepted, the baseline Project Schedule shall be promptly revised by the Contractor in accordance with the recommendations of the County and re-submitted for acceptance.

8.3.3 Updates. With each Application for Payment submitted by Contractor (other than the Final Application for Payment), the Contractor shall submit to the County an updated Project Schedule revised to include, at a minimum:

8.3.3.1 Monthly update/status of electronic database shall include recording of all Actual Start Dates and Actual Finish Dates and status of activities in progress.

8.3.3.2 Review of "planned" versus "actual" work force allocations and progress for the preceding month.

8.3.3.3 Reviews of revisions, added or deleted work and how those activities are being integrated into the Contractor's work plan.

8.3.3.4 Review of the Contractor's interface and coordination with other work on the Project.

8.3.3.5 Review of all impacts to the Work during the preceding month and to date, Contractor evaluation of those impacts and any recovery plans or remedial actions required to comply with the contract schedule.

If the Contractor does not submit an updated Project Schedule with an Application for Payment, County may withhold payment, in whole or in part. In the event any update to the Project Schedule indicates any delays to the Contract Time that are the fault of Contractor or others for whom Contractor is responsible, the Contractor shall propose an affirmative plan to correct the delay, including overtime and/or additional labor, if necessary. In no event shall any Project Schedule Update constitute an adjustment in the Contract Time, any deadline, or the Contract Sum unless any such adjustment is agreed to by the County and authorized pursuant to Change Order, Construction Change Directive, or Written Amendment to Contract.

8.3.4 Extraordinary Measures. In the event the County determines that the performance of the Work has not progressed or reached the level of completion required by the Contract Documents, the County shall have the right to order the Contractor to take corrective measures necessary to expedite the progress of construction, including, without limitation, the Extraordinary Measures as provided in Paragraph 2.8 herein.

8.3.5 Early Completion. While the Contractor may schedule completion of the Project earlier than the date established by the Contract Documents, no additional compensation shall become due the Contractor for the use of float time between the Contractor's projected early completion date and the date for Final Completion established by the Contract Documents except any bonus or penalty provisions set forth in the Contract Documents, which would take precedence over and supersede this Paragraph.

8.3.6 Schedule of Submittals. Unless otherwise provided in the Agreement or Technical Specifications, within ten (10) calendar days after the Date of Commencement, the Contractor shall prepare and keep current, for the County's review and approval, a Schedule of Submittals for Shop Drawings, Product Data, Samples, and similar submittals, coordinated with the baseline Project Schedule and allowing the County reasonable time to review. Contractor shall be solely responsible for any delay, disruption, impact, loss of efficiency or other loss, arising directly or indirectly from Contractor's failure to manage submittals properly.

8.3.7 Procurement Schedule. Unless otherwise provided in the Agreement or Technical Specifications, within ten (10) calendar days after the Date of Commencement, Contractor shall prepare and keep current, for County's approval, a schedule for procurement of materials and equipment which is coordinated with the baseline Project Schedule and allows the County reasonable time to review. Contractor is solely responsible for any delay, disruption, impact, loss of efficiency, or other loss arising directly or indirectly from Contractor's failure to properly manage procurement of equipment and materials.

8.3.8 Performance. The Contractor shall perform the Work in accordance with the most recent Project Schedule and Schedule of Submittals approved by the County. The Contractor shall monitor the progress of the Work for conformance with the requirements of the Project Schedule and shall promptly advise the County of any delays or potential delays.

8.4 Delays and Extensions of Time

8.4.1 Non-Compensable Force Majeure Events.

8.4.1.1 Definition. "Force Majeure" shall mean any of the following events, which materially and adversely affect Contractor's obligations hereunder and which event could not have been avoided or prevented by due diligence and use of reasonable efforts by Contractor: earthquake, fire, flood, epidemic, blockade, rebellion, war, terrorism, riot, act of sabotage, or civil commotion; discovery of any archaeological, paleontological or cultural resources; spill of hazardous substances by a third party at or near the Site which is required to be reported to the Federal or California Environmental Protection Agency, Toxic Substances Control; or discovery at, near, or on the Site of any species listed as "threatened" or "endangered" under the Federal or California Endangered Species Act.

8.4.1.2 Remedies. If the critical path of the Work is delayed by Force Majeure events, provided that the aforesaid causes were not foreseeable and did not result from the acts of the Contractor, and provided further that the Contractor has taken reasonable precautions to prevent further delays owing to such causes, then the Contractor may pursue remedies for adjustment of the Contract Time in accordance with Paragraph 4.3 above. Unless the Force Majeure event damages the Work at the Project Site, Contractor will not be entitled to an adjustment in the Contract Sum.

8.4.1.3 Rain Days/Inclement Weather. For purposes of granting time extensions pursuant to this subparagraph and in accordance with the Claims procedures set forth in Paragraph 4.3 herein, resulting from unworkable days due to rain/inclement weather which were not reasonably foreseeable, the Contractor and County agree that the impact of rainfall/inclement weather for which the Contractor is not entitled to a time extension is a total of ten (10) Work Days per year ("Rain Days"). The Contractor shall account for the above number of Work Days for which the effects of rainfall/inclement weather are expected to prevent Work in the Project Schedule as set forth in Subparagraph 8.3 herein and shall obtain County's approval of Contractor's use of each Rain Day before requesting extension of the Contract Time.

8.4.2 Compensable County-Caused Delays. If the date for Final Completion of the Work is delayed as a result of the wrongful acts or negligence of the County or anyone for whom County is legally liable and the delays are unforeseeable and are unreasonable under the circumstances involved, the Contractor shall be entitled to an equitable adjustment of the Contract Time and/or compensation for reasonable additional costs directly resulting from such delays, but not for any additional home office overhead, profit

or fee, subject to the requirements of Article 8 herein, and further provided Contractor complies with the notice and procedural requirements of Articles 4 and 7 herein.

8.4.3 Concurrent Delays. To the extent the Contractor is entitled to an extension of Contract Time due to an excusable delay, but the performance of the critical path of the Work would have been otherwise suspended, delayed, or interrupted by the fault or neglect of the Contractor or by an inexcusable delay, the Contractor shall not be entitled to any additional cost during the period of such concurrent delay.

8.4.4 Float. Critical Work activities are defined as Work activities which, if delayed or extended, will delay the scheduled completion of the milestones and/or time of completion. All other Work activities are defined as non-critical Work activities and are considered to have float. Float is defined as the time that a non-critical Work activity can be delayed or extended without delaying the scheduled completion of the milestones and/or time of completion. Float is considered a Project resource available to either party or both parties as needed. Once identified, Contractor shall monitor, account for, and maintain float in accordance with Critical Path Methodology.

Delays of any non-critical Work shall not be the basis for an extension of Contract Time until the delays consume all float associated with that non-critical Work activity and cause the Work activity to become critical.

It is acknowledged that County-caused time savings (i.e., critical path submittal reviews returned in less time than allowed by the Contract Documents, approval of substitution requests which result in a savings of time for Contractor, etc.) create shared float. Accordingly, County-caused delays may be offset by County-caused time savings.

8.4.5 Shortage of Material. An extension of time will not be granted by the County for a delay caused by a shortage of materials, except County-furnished materials, unless the Contractor furnishes to the County documented proof that the Contractor has made every effort to obtain such materials from every known source within reasonable reach of the Work. The Contractor shall also submit proof, in the form of network analysis data that the inability to obtain such materials when originally planned did, in fact, cause a delay in Final Completion of the Work which could not be compensated for by revising the sequence of operations. County will consider only the physical shortage of material as a cause for extension of time. The County will not consider any claim that material could not be obtained at a reasonable, practical, or economical cost, unless it is shown to the satisfaction of the County that such material could have been obtained only at exorbitant prices, entirely inconsistent with current rates taking into account the quantities involved and the usual practices in obtaining such quantities and that such fact could not have been known or anticipated at the time the Contract was entered into.

8.4.6 Utility and Agency Delays. Contractor is aware that governmental agencies, gas companies, electrical utility companies, water districts, and other utilities and agencies may be required to approve a proposed installation. Contractor has endeavored and will continue to use its best efforts to include the cost of such anticipated delays and related costs which may be caused by such utilities and agencies in the Contract Sum. Thus, Contractor is not entitled to make claim upon the County for damages or delays arising from the delays caused by such utilities and agencies. Furthermore, the Contractor has included time periods for such governmental approval in the Project Schedule and is not entitled to an extension of time for delays caused by governmental agencies from which Contractor must obtain approvals.

8.4.7 Contractor Fault. No extension of time will be granted under this Article 8 for any delay to the extent: (i) that performance was so delayed by any Contractor induced causes, including but not limited to the fault or negligence of the Contractor or its

Subcontractors; or (ii) for which any remedies are provided for or excluded by any other provision of the Contract.

8.4.8 Contract Modification. A Change Order, Construction Change Directive, or Written Amendment to Contract will be issued by the County to the Contractor within a reasonable period of time after approval of a request for extension of time, specifying the number of days allowed, if any, and the new date or number of calendar days after the date of commencement for completion of the Work or specified portions of the Work.

8.4.9 No Release of Surety. An extension of time granted shall not release the Contractor's surety from its obligations. Work shall continue and be carried on in accordance with all the provisions of the Contract and said Contract shall be and shall remain in full force and effect during the continuance and until the completion and Final Acceptance of the Work covered by the Contract unless formally suspended or annulled in accordance with the terms of the Contract.

8.4.10 No Waiver. Neither the grant of an extension of time beyond the date fixed for Final Completion of the Work, nor the performance and acceptance of any part of the Work or materials specified by the Contract after the time specified for Final Completion of the Work, shall be deemed to be a grant of any future extensions, a waiver by the County of the County's right to abrogate this Contract for abandonment or failure to complete within the time specified, or to impose and deduct damages as may be provided in the Contract Documents.

8.5 Liquidated Damages

8.5.1 County and Contractor recognize that time is of the essence in this Agreement and that the County may suffer financial loss in the form of lost grant funds, additional contract administration expenses, and loss of public use if the Work is not completed within the Contract Time, including any extensions thereof allowed in accordance with the Contract Documents.

8.5.2 Contractor and County agree to liquidate damages with respect to Contractor's failure to achieve Final Completion of the Work within the Contract Time. The Parties intend for the liquidated damages set forth herein to apply to this Contract as set forth in Government Code Section 53069.85. Contractor acknowledges and agrees that the liquidated damages are intended to compensate County solely for Contractor's failure to meet the deadline for Final Completion and shall not excuse Contractor from liability from any other breach, including any failure of the Work to conform to the requirements of the Contract Documents.

8.5.3 In the event that Contractor fails to achieve Final Completion of the Work within the Contract Time, Contractor agrees to pay County the amount per day designated in the Contract and/or Special Conditions for liquidated damages for each calendar day that Final Completion is delayed.

8.5.4 Contractor acknowledges and agrees that the foregoing liquidated damages have been set based on an evaluation by County of damages that it will incur in the event of the late completion of the Work. Contractor and County agree that because of the nature of the Project it would be impractical or extremely difficult to fix the amount of actual damages incurred by the County due to a delay in completion of the Work. Accordingly, the County and Contractor have agreed to such liquidated damages to fix Contractor's costs and to avoid later disputes. It is understood and agreed by Contractor that any liquidated damages payable pursuant to this Agreement are not a penalty and that such amounts are not manifestly unreasonable under the circumstances existing as of the effective date of this Agreement.

8.5.5 It is further mutually agreed that County shall have the right to deduct liquidated damages against progress payments or retainage and that the County will issue a unilateral Construction Change Directive and reduce the Contract Sum accordingly. In the event the remaining unpaid Contract Sum is insufficient to cover the full amount of liquidated damages, Contractor shall pay the difference to County.

9 PAYMENTS AND COMPLETION

9.1 Contract Sum

The Contract Sum, including authorized adjustments, is the total maximum amount payable by the County to the Contractor for performance of the Work under the Contract Documents.

9.2 Schedule of Values

Within fourteen (14) calendar days after the Date of Commencement, Contractor shall submit to the County a Schedule of Values allocated to various portions of the Work. The Schedule of Values shall be approved by the County in writing. The Schedule of Values shall be prepared in such a manner that each major item of Work assigned to Contractor and to each separate Subcontractor is shown as a single line item on AIA Document G703 (or other form as required by County) and supported by such data to substantiate its accuracy as the County may require. The approved Schedule of Values shall be used as a basis for reviewing the Contractor's Applications for Payment.

9.3 Applications for Payment

9.3.1 Applications for Payment. The Contractor shall submit to the County an itemized Application for Payment, utilizing a form approved in writing by the County, for operations completed in accordance with the Schedule of Values and the payment provisions of the Agreement. Such Application shall be notarized, if required by County, and supported by such data substantiating the Contractor's right to payment as the County may require, including copies of requisitions from Subcontractors and Suppliers.

9.3.1.1 Payment will be made on valuation of Work done as of the twenty-fifth of each month, and such application shall be submitted approximately five (5) days before the end of the month.

9.3.1.2 No payments made to the Contractor, nor partial or entire use or occupancy of the Work by the County, shall be acceptance of any Work or materials not in accordance with the Contract Documents.

9.3.2 Based on California Public Contract Code Section 20104.50 and the Contract Documents, each Application for Payment shall be reviewed by the County as soon as practicable after receipt for the purpose of determining that the payment request is proper. Any Application for Payment determined not to be suitable for payment shall be returned to Contractor not later than seven (7) calendar days after receipt. Any returned Application for Payment shall be accompanied by a document setting forth in writing the reasons why the payment request is not proper. The County shall make any progress payment within 30 days after receipt of an undisputed and properly submitted Application for Payment from the Contractor.

9.3.2.1 Such Applications for Payment shall not include requests for payment of amounts the Contractor does not intend to pay to a Subcontractor or material supplier because of a dispute or other reason, or as to which an appropriate conditional or unconditional waiver and release of rights upon payment has not been provided.

9.3.3 Documentation. As a condition precedent to County's monthly progress payment to Contractor, Contractor shall submit with each Application for Payment the following documentation:

- (1) Updated Schedules of Values, invoices and requisitions from all Subcontractors, Sub-subcontractors and suppliers performing Work covered by the Application for Payment;
- (2) Completed and executed form of conditional waiver and release of rights upon progress payment in accordance with California Civil Code Section 8132, from Contractor and its Subcontractors covering the amount of the current Application for Payment;
- (3) Completed and executed forms of unconditional waiver and release of rights upon progress payment in accordance with California Civil Code Section 8134, from Contractor and its Subcontractors covering the amount of the previous Application for Payment (but no later than two months prior to the current Application for Payment);
- (4) Reserved.
- (5) At its sole discretion, the County reserves the right to request (i) an executed subcontract including bonds, insurance, certificates, and endorsements and all other exhibits and attachments for each item of material, labor and service for which a disbursement has been requested and (ii) certifications from each Subcontractor and Sub-subcontractor of any tier, that each is current in the payment of any supplemental fringe benefits required pursuant to any collective bargaining agreement to which any such Subcontractor or Sub-subcontractor is a Party or is otherwise bound; and
- (6) Such other documentation as the County may reasonably request.

Any Payment made by County to Contractor in the absence of any of the preceding documents in no way relieves the Contractor from providing all these documents for the current and/or any future payment.

9.3.3.1 As a further condition precedent to County's obligation to make monthly progress payment to Contractor, Contractor must be current in its submittal of documentation required by the Contract Documents including, but not limited to the following:

- (1) A Subcontractor Procurement Log listing executed subcontracts including bonds, insurance, certificates, and endorsements and all other exhibits and attachments for each item of material, labor and service for which a disbursement has been requested;
- (2) Log of all licenses, leases, permits, approvals and agreements relating to the construction of the Project;
- (3) Contractor's daily logs;
- (4) Record Documents and As-Built Drawings and Specifications updated with current Project information as described in Subparagraph 3.10.1 above;
- (5) Updated Project Schedule;

(6) RFI Log;

(7) Change Order Request Log and Change Order Log, including a list of any Change Orders and Construction Change Directives, contemplated or under negotiation at the date of such payment request, the status, and a rough order of magnitude cost for each such change.

(8) Certified Payrolls for the time period covered in the Application for Payment.

Any payment made by County to Contractor in the absence of any of the preceding documents in no way relieves the Contractor from providing all these documents for the current and/or any future payment.

9.3.4 Initial Payment Application. Contractor shall ensure that all administrative actions, submittals, payment procedures and requirements set forth in the Contract Documents for the first Application for Payment must precede or coincide with the initial Application for Payment, including:

(1) A description of the types of Work and the amounts thereof to be provided by the Contractor (as opposed to the Subcontractors);

(2) A list of Subcontractors, principal suppliers and fabricators;

(3) A Submittal Schedule;

(4) Copies of all necessary permits;

(5) All insurance certificates and endorsements for Contractor and all Subcontractors are in place;

(6) Payment and Performance Bonds for Contractor and Subcontractors, as applicable, are in place; and

(7) Job signs have been installed.

9.3.5 Payment to Subcontractors. Within seven (7) calendar days of Contractor's receipt of payment from County for Work performed by a Subcontractor, the Contractor shall pay all Subcontractors for and on account of Work on the Contract performed by each. The Contractor shall by appropriate agreement with each Subcontractor and Supplier, require each Subcontractor to make payments to Sub-subcontractor in a similar manner. The County will, on request, furnish to a Subcontractor, Sub-subcontractor, or supplier, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the County on account of portions of the Work done by each.

9.3.6 Substantial Completion Payment Application. Following the determination of Substantial Completion by the County's Project Manager and approval thereof by County, the Contractor shall submit an Application for Payment at Substantial Completion. In addition to submittals required for all applications for progress payments, the Contractor shall complete the following administrative actions and submittals, all of which shall precede or coincide with this application:

(1) List all incomplete items of Work and the value of each item of incomplete Work;

- (2) Obtain and submit all documentation necessary to enable the County's full and unrestricted use of the Work or portions thereof, and access to services and utilities, and to supply any change-over information necessary to the County's occupancy, use, operation, and maintenance;
- (3) Discontinue and remove temporary facilities and services from the Site, along with construction tools and facilities, forms, and similar items except for Contractor's field office;
- (4) Obtain all temporary occupancy permits and similar approvals for the use of the facilities;
- (5) Inspect, test, and adjust performance of every system of facility of the Work to ensure that overall performance is in compliance with terms of the Contract Documents;
- (6) Submit a report of such test results to the County;
- (7) Provide instruction for the County's operating personnel on systems and equipment operational requirements;
- (8) Report performance of completed installations after adjustment that appear unable to comply with the requirements of the Contract Documents; and
- (9) Submit the operating manual(s) for operating and maintaining the building.

9.3.7 Warranty of Title. The Contractor warrants that title to all Work covered by an Application for Payment will pass to the County no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Applications for Payment have been previously issued and payments received from the County shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, stop notices, claims, security interests, or encumbrances in favor of the Contractor, Subcontractors, Sub-subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials, and/or equipment relating to the Work. This provision shall not relieve the Contractor from the responsibility for materials and Work upon which payments have been made, the restoration of damaged Work, or waive the right of the County to require the fulfillment of the terms of the Contract.

9.3.8 Cash Allowance. Whenever the Specifications provide a lump sum amount for specified Work, the Contractor shall include that amount in his bid for the designated Work, and the stated amount shall be deemed to include the full allowance. Any difference in cost to the Contractor from the supplier shall be added to or deducted from the Contract Sum.

9.3.9 Equipment or Materials. If, during the progress of the Work, the Contractor, with the written approval of the County, purchases and stores in an approved manner on the Site any equipment or materials required to complete the Work prior to the normal need of such equipment or materials, Contractor will be paid on the same basis as provided in Paragraph 9.3, except that the value of such materials or equipment shall be claimed as a separate item and so reported until it shall have been incorporated in the Work. County will not pay for the materials or equipment at the time they are ordered and will not pay for materials or equipment until they are delivered to the Site.

9.3.9.1 If required by the County, such payments shall be conditional upon submission by the Contractor of bills of sale, or such procedure as will establish the County Title to such equipment or materials, or otherwise adequately protect the County's interests.

9.3.9.2 Any equipment or materials stored and paid for by the County prior to being incorporated in the Work shall not be used for any other purpose and shall not be removed from the Site.

9.4 Decisions to Withhold Payment

9.4.1 Basis for Decision to Withhold. The County's Project Manager may withhold payment in whole or in part, to the extent reasonably necessary to protect the County. If the County's Project Manager is unable to approve payment in the amount of the Contractor's Application for Payment, the County's Project Manager will notify the Contractor of the reasons for failing to approve the payment. If the Contractor and County's Project Manager cannot agree on a revised amount, the County's Project Manager will promptly issue payment for the amount for which the County's Project Manager is able to make such representations to the County. The County's Project Manager may refuse to make payment or, because of subsequently discovered evidence, the County's Project Manager or the County may nullify the whole or a part of a payment previously issued, to such extent as may be necessary in the County's Project Manager's opinion to protect the County from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Subparagraph 3.3.2 and 3.18 or because of:

- (1) Defective work not remedied;
- (2) Third party claims filed or reasonable evidence indicating probable filing of such claims, including stop notices, unless security acceptable to the County is provided by the Contractor;
- (3) Failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials, services or equipment;
- (4) Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- (5) Damage to the County or another contractor;
- (6) Reasonable evidence that the Work will not be completed within the Contract Time;
- (7) Persistent failure to carry out the Work in accordance with the Contract Documents;
- (8) Liquidated damages, if any, which accrued as of the date of the Application for Payment;
- (9) Such other sum as the County is entitled to recover from the Contractor; and
- (10) Contractor's failure to timely submit:
 - (a) Daily logs;

- (b) Certification from County and Contractor that Record Documents and As-Built Drawings and Specifications have been updated with current Project information as described in Paragraph 3.10 above;
- (c) Updated Construction Schedule;
- (d) RFI logs;
- (e) Change Order Log; and
- (f) Certifications from each Subcontractor and Sub-subcontractor of any tier that each is current in the payment of any supplemental fringe benefits required pursuant to any collective bargaining agreement to which any such Subcontractor is a Party or is otherwise bound.

9.4.2 Withhold for Disputes. In the event of a dispute between County and Contractor, the County may withhold from payments an amount not to exceed one hundred fifty percent (150%) of the disputed amount. When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

9.4.3 Withhold for Stop Notice Claims.

9.4.3.1 If at any time there shall be evidence of the existence, whether or not same has been asserted, of any stop notice, or claim arising out of or in connection with the performance or default in performance of this Contract or any subcontract or supply contract entered into by Contractor to perform this Contract, and if the County might become liable for the discharge of or satisfaction of such stop notice or claim, then the County shall have the right to retain out of any payment then due or thereafter to become due, in addition to the amounts set forth above, an amount sufficient to discharge such stop notice or satisfy such claim and to reimburse the County and the Project Manager(s) of the County for all costs and expenses in connection therewith, including attorneys' fees. Further, the County, in its sole discretion, shall have the right to discharge or satisfy such stop notice or claim and pay all costs and expenses in connection therewith if the Contractor does not have such stop notice or claim discharged or satisfied within ten (10) calendar days after receiving notice to remove the stop notice or claim from County or unless some other procedure for discharge or satisfaction of such claim is agreed between County and Contractor. If the amounts retained are insufficient for the aforesaid purposes, or if such stop notice or claim remains undischarged or unsatisfied after all payments have been made to the Contractor, then the Contractor shall refund to the County all monies that may have been paid, or need to be paid, to discharge such stop notice or satisfy such claims, including the costs, expenses, and attorney's fees in connection therewith.

9.4.3.2 The County may release any payments withheld due to a stop notice claim if the Contractor obtains a release bond that is: (i) issued by a surety acceptable to County admitted to issue surety bonds by the California Department of Insurance; (ii) is in form and substance satisfactory to the County; and (ii) is in an amount of not less than 125% of the amount of any stop notice claim.

9.5 Progress Payments

9.5.1 County Payments to Contractor. After the County's Project Manager has issued an authorization for payment, the County, subject to its rights under Paragraph 9.5 herein, shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the County's Project Manager.

9.5.2 Joint Checks or Direct Payments. Neither the County nor County's Project Manager shall have an obligation to pay or to see to the payment of money to a Subcontractor except as may otherwise be required by law. County, however, reserves the right, in its sole discretion for reasonable cause, to make payments to Contractor in the form of checks payable jointly to Contractor and to any of Contractor's Subcontractors or suppliers or, upon notice to Contractor with the opportunity to object, payments directly to Subcontractors and suppliers, in satisfaction of County's obligation to make payments to Contractor.

9.5.3 Payment Not Acceptance of Work. An authorization for payment, a progress payment, or partial or entire use or occupancy of the Project by the County shall not constitute acceptance of Work not in accordance with the Contract Documents.

9.5.4 Retention. From each progress payment, five percent (5%) will be deducted and retained by the County and the remainder, less the amount of all previous payments and less the amounts needed to satisfy outstanding stop notices, will be paid to the Contractor. At no time shall the progress payments be in excess of ninety-five percent (95%) of the percentage of actual work completed plus ninety-five percent (95%) of the value of materials delivered on the ground or stored and under the control of the County.

9.5.5 The Contractor may, at the Contractor's sole cost and expense, substitute securities equivalent to any monies withheld by the County to insure performance under this Contract. Such security shall be deposited with the County or a state or federally chartered bank as escrow agent, who shall pay such monies to the Contractor upon satisfactory completion of the Contract. The Contractor shall be the beneficiary of any security substituted for monies withheld and shall receive any accrued interest thereon. Securities eligible for investment shall include those listed in Government Code Section 16430 or bank or savings and loan certificates of deposit. No such substitution shall be accepted until the Escrow Agreement, Forms of Security and any other document related to said substitution is reviewed and found acceptable by the County, nor unless the Contractor shall have notified the County of its intention to substitute securities for retainage within ten (10) days of the signing of the Agreement.

9.5.6 Payment by Electronic Fund Transfer. Contractor shall accept all payments from County via electronic funds transfer (EFT) directly deposited into the Contractor's designated checking or other bank account. Contractor shall promptly comply with directions and accurately complete forms provided by County required to process EFT payments.

9.6 Substantial Completion

9.6.1 Contractor Request for Inspection and Punch List. When the Contractor considers that the Work is substantially complete, the Contractor shall prepare and submit to the County's Project Manager and County a request for such inspection and a comprehensive Punch List of items to be completed or corrected prior to Final Payment. Failure to include an item on such Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

9.6.2 County Inspection. Upon receipt of the Contractor's Punch List, the County's Project Manager will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the inspection discloses any item, whether or not included on the Contractor's Punch List, which is not sufficiently complete in accordance with the Contract Documents so that the County can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before the determination by County of Substantial Completion, complete or correct such item upon notification by County. In such case, the Contractor shall then submit a request for another inspection by County to determine Substantial Completion.

9.6.3 Determination of Substantial Completion. When the Work or designated portion thereof is substantially complete, the County's Project Manager will make a determination of Substantial Completion which shall establish the date of Substantial Completion, shall establish responsibilities of the County and Contractor for security, maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall finish all items on the Punch List and as required in the Contract Documents.

9.6.4 County's Acceptance. The determination of Substantial Completion prepared by County's Project Manager shall be submitted to the Contractor. Upon such acceptance and consent of surety, provided the requirements for Substantial Completion Payment set forth in the Agreement are met, the County shall make payment to the Contractor for the cost of undisputed Work in place. The County's payment shall not exceed 95% of the Contract Sum until Final Completion and acceptance by County of the Work. County, however, shall be entitled to withhold retainage equaling 150% of the estimated cost of the following items until Final Completion:

- (1) Punch list items;
- (2) All items necessary to obtain the Final Certificate of Occupancy identified in the Contract Documents as the Work of Contractor;
- (3) As-Built and Record Documents;
- (4) Potential stop notice claims of individuals or entities who have not provided Conditional Waivers and Releases Upon final Payment; and
- (5) Any Claims the County may have against the Contractor.

If the Contractor has not completed all items enumerated above within thirty (30) calendar days after the determination of Substantial Completion, the County shall have the right to demand completion or correction of the items within a 48-hour period. If the Contractor does not commence the requested Work within the 48-hour period or provide County with written notice of a legitimate reason why Contractor is not able to commence the Work within the 48-hour period, the County shall have the unilateral right to complete the Work and deduct the cost of completion of the Work from any money held pending Final Completion.

9.7 Partial Occupancy or Use

9.7.1 County's Rights and Allocation of Responsibility. The County may occupy or use any completed or partially completed portion of the Work at any stage provided such occupancy or use is consented to by the insurer providing builder's risk property insurance to the Project and is not prohibited by the applicable legal requirements. Such partial occupancy or use may commence whether or not the portion is substantially

complete, provided the County and Contractor have agreed in writing as to the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work, and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to County and County's Project Manager as provided under Subparagraph 9.7.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the County and Contractor.

9.7.2 Joint Inspection. Immediately prior to such partial occupancy or use, the County, Contractor and County's Project Manager shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

9.7.3 No Acceptance. Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

9.7.4 Conditions. The Contractor agrees to County's use and partial occupancy of a portion or unit of the Project before formal acceptance by the County under the following conditions:

- (1) Occupancy by the County shall not be construed by the Contractor as being an acceptance by County of that part of the Project to be occupied;
- (2) Contractor shall not be held responsible for any damage to the occupied part of the Project resulting solely from the County's occupancy;
- (3) Occupancy by the County shall not be deemed to constitute a waiver of existing claims on behalf of the County or Contractor against each other;
- (4) If the Project consists of more than one building, and one of the buildings is to be occupied, the County, prior to occupancy of the building, shall secure permanent property insurance on the building to be occupied and any necessary partial occupancy permits from the governmental agencies in jurisdiction. Final approval and occupancy permits from agencies in jurisdiction are still the responsibility of the Contractor, which may be required for use and occupancy;
- (5) Contractor shall make available in the areas occupied, on a 24-hour day and seven-day week basis if required, any utility services, heating, and cooling as are in condition to be put in operation at the time of early occupancy. All responsibility for the operation and maintenance of said equipment shall remain with the Contractor while it is so operated. However, an itemized list of each piece of equipment so operated, with the date operation commences, shall be made and certified by the County's Project Manager. This list shall be the basis for the commencement of guarantee periods on the equipment being operated for the benefit of the County's early occupancy. The County shall pay for all utility costs and operational expenses which arise out of the occupancy by the County during construction;
- (6) County's use and partial occupancy prior to Project acceptance does not relieve the Contractor of his responsibility to maintain all insurance and bonds

required of the Contractor under the Contract until the Project is complete and the Notice of Completion is recorded by the County; and

- (7) If time and/or costs are impacted by County's partial occupancy or use, Contractor may submit a Claim for such financial and/or Schedule impact in accordance with Article 4.

9.8 Final Completion and Final Payment

9.8.1 Inspection. Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a Final Application for Payment, the County's Project Manager will promptly make such inspection and, when the County finds the Work acceptable under the Contract Documents and the Contract fully performed, the County's Project Manager will promptly issue a final authorization for payment stating that to the best of the County's Project Manager's knowledge, information and belief, and on the basis of the County's Project Manager's on-site visits and inspections, the Work has been fully and satisfactorily completed in strict compliance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final authorization for payment is due and payable. The County's Project Manager's final authorization for payment will constitute a further representation that conditions listed in Subparagraph 9.8.2 as precedent to the Contractor's being entitled to Final Payment have been fulfilled. Warranties required by the Contract Documents shall commence on the date of Final Completion of all Work.

9.8.2 Documentation. In addition to the requirements for Final Payment set forth in the other Contract Documents, the Final Payment shall not become due until (i) Contractor has fully performed the Contract, including all Punch List work; (ii) a Final Certificate of Occupancy (or equivalent inspection sign-off) has been issued (unless failure to issue is due to circumstances beyond the control of Contractor); (iii) sixty (60) calendar days have elapsed since County's recordation of a Notice of Completion; and (iii) Contractor has submitted to the County:

- (1) A full, complete and proper Final Application for Payment;
- (2) A current Sworn Statement from the Contractor setting forth all Subcontractors and material suppliers with whom Contractor has subcontracted; the amount of each subcontract; the amount requested for each Subcontractor and supplier in the payment application; the balance remaining on the subcontract; and that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the County or the County's property might be responsible or encumbered (less amounts withheld by County) have been paid or otherwise satisfied;
- (3) A current Sworn Statement from each Subcontractor setting forth all Sub-subcontractors and material suppliers with whom Subcontractor has subcontracted; the amount of each sub-subcontract; the amount requested for each Sub-subcontractor and supplier in the payment application; the balance remaining on the subcontract; and that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the County or the County's property might be responsible or encumbered (less amounts withheld by County) have been paid or otherwise satisfied;
- (4) Completed and executed forms of conditional waiver and release of rights upon final payment in accordance with California Civil Code Section 8136 from Contractor and all persons eligible to record mechanics' liens and file stop notices in connection with the Work, covering the final payment period;

- (5)** Completed and executed forms of unconditional waiver and release of rights upon progress payment in accordance with California Civil Code Section 8134 from Contractor and all persons eligible to record mechanics' liens and file stop notices in connection with the Work, covering the previous payment period;
- (6)** Completed and executed affidavits from Contractor and Subcontractors, attaching certificates and endorsements evidencing that insurance required by the Contract Documents to remain in force after Final Payment, if any, is currently in effect and will not be canceled or allowed to expire until at least 30 days prior written notice has been given to the County;
- (7)** A written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents;
- (8)** Consent of surety(ies) to Final Payment;
- (9)** Contractor's written assurance that identified corrective work not complete and accepted will be completed by a stated date agreeable to County;
- (10)** The required Record Documents and As-Built Construction Documents including, but not limited to, shop drawings and other submittals;
- (11)** Reasonable proof that taxes, fees and similar obligations of Contractor have been paid;
- (12)** A certificate in form and substance acceptable to County and signed by the County's Project Manager certifying that, to the best of its knowledge, the Work has been completed in accordance with the Contract Documents, all Applicable Laws and restrictions; that the Work, as completed, complies in all material respects with all applicable zoning, environmental, building, and land use laws which apply to the Project; that to the knowledge of the County's Project Manager, no governmental entity has issued any notice of violation or nonconformity in connection with the improvements; that direct connection has been made to all abutting gas, sewer, telephone, and electrical facilities necessary for occupancy and use of the Project; and that the Project is ready for occupancy/use;
- (13)** Reserved;
- (14)** All warranties from vendors and Subcontractors, maintenance manuals, instructions and related agreements, equipment certifications and similar documents, and maintenance and operating instructions, which shall include:
- (a)** Schematic piping and wiring diagrams;
 - (b)** Valve charts and schedules;
 - (c)** Electrical panel schedules complete and posted in panels;
 - (d)** Lubrication charts and schedules;
 - (e)** Guides for troubleshooting;

- (f) Pertinent diagrams of equipment with main parts designated for identification;
 - (g) Manufacturer's data and capacity data on all equipment;
 - (h) Operating and maintenance instructions for all items of equipment and all control systems;
 - (i) Manufacturer's parts list; and
 - (j) Testing procedures for operating tests;
- (15) Tools, spare parts and required extra materials (i.e., attic stock), and similar items;
 - (16) Keys and proof of the final change-over of locks. In addition, Contractor must advise the County's personnel of the change-over in security provisions;
 - (17) Written start-up testing performance reports of all systems after completion of start-up testing, and complete instruction of the County's operating and maintenance personnel;
 - (18) Proof of adherence to final cleaning requirements of the Contract Documents; and
 - (19) Proof of touch up and other repairs and restoration of all marred and exposed finishes.

9.8.3 Release of Stop Notices. If a Subcontractor or supplier refuses to furnish a release or waiver required by County or files a stop notice, the Contractor shall furnish a bond satisfactory to the County to release the stop notice and indemnify the County against such stop notice and County shall enforce its right under Subparagraph 9.4.3 herein.

9.8.4 Delay Not Caused by Contractor. If, after Substantial Completion of the Work, Final Completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting Final Completion, the County shall, upon application by the Contractor and certification by the County, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted provided, however, that the retainage amount held following such payment shall be equal to 150% of the estimated cost of completing the Work as determined by the County. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the County prior to certification of such payment. Such payment shall be made under terms and conditions governing Final Payment.

9.8.5 Contractor's Acceptance of Final Payment. Acceptance of Final Payment by the Contractor, a Subcontractor, or material supplier shall constitute a waiver of any and all Claims by that payee, of whatsoever nature, character or kind, except those previously made in writing and identified by that payee as unsettled at the time of Final Application for Payment.

9.8.6 County's Final Payment. The making of Final Payment shall not constitute a waiver of Claims by the County arising from:

- (1) Unsettled stop notices;
- (2) Faulty or defective work appearing after Substantial Completion of the Work;
- (3) Failure of the Work to comply with the requirements of the Contract Documents;
- (4) Terms of any special warranties required by the Contract Documents; or
- (5) Any other Claim unless specifically waived by the County in writing.

10 PROTECTION OF PERSONS AND PROPERTY

10.1 Safety Precautions and Programs

The Contractor is responsible for establishing, maintaining, and supervising the necessary safety precautions needed to permit the performance of the Work without endangering public safety and property. A Site Specific Safety Program and the Contractor's Safety Policy must be prepared and submitted for the County's review and comments. Contractor shall comply with the review comments of County. The Site Specific Safety Program shall include the following:

- (1) The identity of outside safety consultant or Contractor's safety officer and on-site safety officer;
- (2) The schedule for the Contractor's safety inspections;
- (3) The type and frequency of training conducted for Contractor's personnel including tailgate meeting, lifting training, emergency procedure, etc.;
- (4) Information on the types of heavy equipment to be used and the necessary precaution to be taken if there is an accident;
- (5) A copy of the Contractor's Hazardous Communications Program;
- (6) A list of any possible fire hazards and the firefighting equipment for the particular Site;
- (7) A detailed description of hazardous or unusual procedures necessary for the particular Site;
- (8) Information on any material impact of the construction on the surrounding area including traffic flow, parking, street closure, utility shutoffs, and pedestrian crossing;
- (9) Placement, quantity and type of safety warning lights, signs or other devices during construction;
- (10) Written procedures in the event of an injury, fire, hazardous material experience, or other emergency during construction; and
- (11) Description of the location and enclosure of the approved staging area.

Contractor shall also comply with any safety requirements required by insurers providing coverage for the Project. Notwithstanding the foregoing, Contractor specifically assumes all risk of damages or injury to any persons or property, wherever located, resulting from any action or operation of the Contractor or Contractor's Subcontractors or Sub-subcontractors under the Contract Documents or in connection with the Work.

10.2 Safety of Persons and Property

10.2.1 Contractor's Responsibility for Damage or Loss. Except as otherwise provided in the Contract Documents and except as to the cost of repair or restoration of damage to the Work caused by Force Majeure events, the Contractor shall bear all losses resulting to him/her on account of the amount or character of the Work, or from any unforeseen obstructions or difficulties which may be encountered, or from any encumbrances on the line of the Work, or because the nature of the ground in or on which the Work is done is different from what is assumed. The Contractor shall bear the risk for any County equipment, material, or supplies with which Contractor has been entrusted and shall bear responsibility for all bodily injuries to persons, including accidental death, which may be caused by Contractor's performance of the Work.

10.2.2 Contractor's Remedy for Damage or Loss. The Contractor shall promptly remedy all damage or loss to any property referred to in this Article arising, in whole or in part, from the Work performed by the Contractor or by any Subcontractor, any Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, and for which the Contractor is responsible, except damage or loss attributable to the acts or omission of the County, or anyone directly or indirectly employed by the County, or by anyone for who the County may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's indemnification obligations under Paragraph 3.18 herein.

10.2.3 Precautions and Protection. The Contractor shall take necessary precautions for the safety of, and shall provide necessary protection to prevent damage, injury or loss to:

- (1) Employees on the Site and other persons who may be affected thereby;
- (2) The Work and materials and equipment to be incorporated therein, whether in storage on or off the Site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- (3) Other property at the Site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

10.2.4 Notice and Compliance with Applicable Law. The Contractor shall give notices and comply with Applicable Laws bearing on safety of persons or property or their protection from damage, injury or loss. Contractor shall comply with all laws and regulations, including the California Labor Code and with all California Occupational Safety and Health Act ("OSHA"), Environmental Protection Agency, and South Coast Air Quality Management District and Mojave Desert Air Quality Management District regulations, concerning safety requirements and protection of workers including, but not limited to, those regulations concerning scaffolding, bracing, shoring, trench excavating and removal, and handling and disposal of hazardous waste. Contractor shall fully defend, indemnify, and hold harmless the County, its members, officers, volunteers, employees, and agents, including, but not limited to, the County's Project Manager, from any and all citations and/or memoranda assessed against the County due to regulatory violations of the Contractor, Contractor's Subcontractors, or Sub-subcontractors.

10.2.5 Safeguards. The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgate safety regulations, and notify County and users of adjacent Sites and utilities. The Contractor shall also be responsible for all measures necessary to protect any property adjacent to the Project and improvements thereon. Any damage to adjacent property or improvements shall be promptly repaired or replaced by Contractor at its sole cost and expense within the Contract Sum.

10.2.6 Excavation. As required by Section 6705 of the California Labor Code and in addition thereto, whenever Work under the Contract involves the excavation of any trench or trenches five feet or more in depth, the Contractor shall submit for acceptance by the County or by a registered civil or structural engineer employed by the County, to whom authority to accept has been delegated, 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 such trench or trenches. If such plan varies from the shoring system standards established by the construction safety orders of the Division of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer employed by the Contractor and all costs therefore shall be included in the price named in the Contract for completion of the Work as set forth in the Contract Documents. Nothing in this section shall be construed to impose tort liability on the County or any of its officers, agents, officials, volunteers, the Project Managers or employees.

10.2.7 Notice of Hazards. When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care, carry on such activities under supervision of properly qualified personnel, and shall provide County and County's Project Manager with reasonable advance notice of such activity.

10.2.8 Loading. The Contractor shall not load or permit any part of the construction or Site to be loaded so as to endanger its safety. The Contractor shall be responsible for the protection of all existing structures and improvements, both above and underground, including both the exterior and interior finishes within the adjoining working areas, and shall provide adequate temporary removal as necessary. Any existing structures or improvements damaged during construction shall be repaired or replaced with materials, workmanship, fixtures, or equipment of the same kind, quality and size as the original, prior to damage. Any materials or equipment temporarily removed and damaged shall be re-erected or installed in a manner approved by the County.

10.2.8.1 The Contractor shall review the structural capability of the construction and Site prior to allowing installation of temporary lifting devices or staging equipment or the temporary off-loading of materials. Contractor shall not exceed design loads without making modifications to the construction or Site to support such loads.

10.2.8.2 All modifications to the construction or Site to support temporary lifting devices, staging equipment, or loading shall be submitted to County for review and acceptance.

10.2.9 Accident Prevention. The Contractor shall designate a responsible member of the Contractor's organization at the Site whose duty shall be the prevention of accidents. This person shall be the Contractor's Superintendent unless otherwise designated by the Contractor in writing to the County.

10.2.10 Accident Reporting. The Contractor shall immediately report all accidents and injuries to County, and shall submit on a form approved by County within 24 hours of

such accident or injury setting forth essential information for investigation of the accident or injury including, but not limited to, name, address, and phone number of all injured workers and witnesses, location on the jobsite, nature of injury, medical treatment, identity of ambulance company, and hospital.

10.2.11 Adjoining Property. Contractor shall employ all necessary measures to protect adjoining adjacent property and shall provide barricades, temporary fences, and covered walkways required to protect the safety of passersby, as required by prudent construction practices, local building codes, ordinances, or other laws and the Contract Documents.

10.2.12 Response. Contractor shall immediately respond to notice from the County of unsafe conditions.

10.2.13 Documents Available. Contractor shall have available at the Project Site, copies or suitable extracts of "Construction Safety Orders" and "General Industrial Safety Orders" issued by the State Division of Industrial Safety.

10.3 Hazardous Materials

10.3.1 Notice to County. The Contractor agrees that it is solely responsible for investigation and performing remedial actions on all hazardous materials and other related environmental requirements located on the Project Site. Any hazardous materials that are encountered beyond those described in the Contract Documents may properly be the subject to a Change Order. The County agrees that the Contractor cannot be considered a hazardous materials generator of any such materials in existence on the Site at the time it is given possession of the Site. In the event the Contractor encounters on the Site materials which it reasonably believes to be "hazardous materials" as that term is defined by federal and state law, which have not been rendered harmless, the Contractor shall immediately stop work in the area affected and report the condition to the County in writing. The work in the affected area shall not thereafter be resumed until a suitable testing agency certifies the material as nonhazardous or the material is removed or rendered harmless as certified by a suitable testing agency.

10.3.2 Material Safety Data Sheets and Compliance with Proposition 65.

10.3.2.1 Contractor is required to ensure that material safety data sheets are available in a readily accessible place at the Work Site, for any material requiring a material safety data sheet per the federal "hazard communication" standard, or employees' right-to-know law. The Contractor is also required to insure proper labeling on any substance brought into the Project Site, and that any person working with the material, or within the general area of the material, is informed of the hazards of the substance and follows proper handling and protection procedures.

10.3.2.2 Contractor is required to comply with the provisions of California Health and Safety Code Sections 25249.5 et seq., which requires the posting and giving of notice to persons who may be exposed to any chemical known to the State of California to cause cancer. The Contractor agrees to familiarize itself with the provisions of this section, and to comply fully with its requirements.

10.4 Contractor Materials

The County shall not be responsible for materials and substances brought to the Site by the Contractor unless such materials or substances were required by the Contract Documents.

10.5 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Paragraph 4.3 and Article 7.

10.6 Protection of the Work

10.6.1 Contractor shall protect all materials, equipment, supplies and Work from injury or damage due to heat, storms, rain or wind. If unusually severe weather makes it impossible to continue operations safely in spite of necessary weather precautions, Contractor shall cease Work and notify County of such cessation in accordance with the requirements of Article 4.

10.6.2 Contractor shall not permit open fires on the Project.

10.6.3 Contractor shall take necessary precautions to guard against and eliminate possible fire hazards and to prevent damage to construction Work, building materials, equipment, temporary field offices, storage shed, and public and private property.

10.6.4 If Contractor fails to adequately protect the Work, Contractor is responsible for all damage incurred by County. Contractor is responsible for payment of the deductible on the Builder's Risk Policy, however, County, at its sole discretion, can decide to pay the deductible and deduct such payment from payments then or thereafter due Contractor. If payments then or thereafter due the Contractor are not sufficient to cover such deductible amounts, the Contractor will then pay the different to the County.

10.7 Protection of Existing Property

The Contractor shall be responsible for all measures necessary to protect existing property to remain. This shall include, but is not limited to, padding and draping elevators used in construction, draping of openings and other measures to isolate areas remaining in use, relocation of furniture, fixtures, and equipment, protective covering/draping of furniture, fixtures, and equipment, and protection of landscape materials, planting, and interior and exterior finishes at and adjacent to the Work. Property damaged by the Contractor shall be repaired or replaced by the Contractor to the satisfaction of the County without increase to the Contract Sum. Such measures shall be taken at a frequency required to provide such protection and to keep the areas operational as indicated elsewhere in the Agreement.

11 INSURANCE AND BONDS

11.1.1 Performance Bond and Payment Bond

11.1.2 Bond Requirements.

11.1.2.1 Contractor shall furnish a Labor and Material Payment Bond and a Performance Bond on the forms provided by the County or on any other form approved by County. Contractor shall deliver to County no later than ten (10) calendar days after award of the Contract, evidence satisfactory to County that Contractor has obtained the required bonds. The Performance Bond shall be furnished as a guarantee of the faithful performance of the requirements of the Contract Documents in an amount equal to one hundred percent (100%) of the Contract Sum. The Payment Bond shall secure payment of all claims, demands,

stop notices, mechanics liens, or charges of material suppliers, mechanics, or laborers employed by the Contractor or by any Subcontractor or any person, firm, or entity eligible to file a stop notice with respect to the Work in an amount equal to one hundred percent (100%) of the Contract Sum. Bonds may be obtained through Contractor's usual source, provided the bonds meet all County requirements, and the cost thereof shall be included in the Contract Sum. In the event of changes in the Work, that increase the Contract Sum, the amount of each bond shall increase and at all times remain equal to the Contract Sum.

11.1.2.2 The bonds shall be executed by a California admitted surety with an A.M. Best's Company rating satisfactory to the County. If an A.M. Best's rating is not available, the proposed surety must meet comparable standards of another rating service satisfactory to County. Bonds issued by a California admitted surety listed in the latest versions of the U.S. Department of Treasury Circular 570 shall be deemed to be accepted unless specifically rejected by County. Bonds from a California admitted surety not listed in Treasury Circular 570 must be accompanied by all of the documents enumerated in California Code of Civil Procedure Section 995.660(a). All bonds must comply with the Bond and Undertaking Law (Code of Civil Procedure Section 995.010 et. seq.).

11.1.2.3 All such bonds shall be accompanied by a power of attorney from the surety company authorizing the person executing the bond to sign on behalf of the company. If the bonds are executed outside the State of California, all copies of the bonds must be countersigned by a California representative of the surety. The signature of the person executing the bond shall be acknowledged by a Notary Public as the signature of the person designated in the power of attorney.

11.1.2.4 If, during the continuance of the Contract, any of the sureties, in the opinion of the County, are or become non-responsible or otherwise unacceptable to County, County may require other new or additional sureties, which the Contractor shall furnish to the satisfaction of County within ten (10) days after notice, and in default thereof the Contract may be suspended and the materials may be purchased or the work completed as provided in Articles 2 and 13 herein.

11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall permit a copy to be made.

11.1.4 The Performance Bond shall name the County as the beneficiary under the bond.

11.1.5 In the event of increases in the Contract Sum by Change Orders, or otherwise, the Contractor shall submit to the County evidence of additional bond coverage (both Labor and Material Payment Bond and Performance Bond) for such increases in the Contract Sum. Contractor shall be compensated for such additional bond coverage.

11.1.6 Changes in the Work or extensions of time, made pursuant to the Contract, shall in no way release the Contractor or Surety from their obligations; and the bonds shall remain in full force and effect until one year following the filing of Notice of Completion of the Project by the County. Notice of such changes or extensions shall be waived by the surety.

11.2 Insurance

11.2.1 Contractor shall not commence work under this Contract until all insurance has been obtained that is required under this section and such insurance has been verified by the County, nor shall Contractor allow any Subcontractor to commence work on its

Contract until all similar insurance required of the Subcontractor has been so obtained and approved.

The Contractor agrees to provide insurance set forth in accordance with the requirements herein. If the Contractor uses existing coverage to comply with these requirements and that coverage does not meet the specified requirements, the Contractor agrees to amend, supplement or endorse the existing coverage to do so.

Without in anyway affecting the indemnity herein provided and in addition thereto, the Contractor shall secure and maintain throughout the contract term the following types of insurance with limits as shown:

11.2.1.1 Workers' Compensation/Employers Liability

A program of Workers' Compensation insurance or a state-approved, self-insurance program in an amount and form to meet all applicable requirements of the Labor Code of the State of California, including Employer's Liability with \$250,000 limits covering all persons including volunteers providing services on behalf of the Contractor and all risks to such persons under this Contract.

If Contractor has no employees, it may certify or warrant to the County that it does not currently have any employees or individuals who are defined as "employees" under the Labor Code and the requirement for Workers' Compensation coverage will be waived by the County's Director of Risk Management.

With respect to Contractors that are non-profit corporations organized under California or Federal law, volunteers for such entities are required to be covered by Workers' Compensation insurance.

11.2.1.2 Commercial/General Liability Insurance

The Contractor shall carry General Liability Insurance covering all operations performed by or on behalf of the Contractor providing coverage for bodily injury and property damage with a combined single limit of not less than one million dollars (\$1,000,000), per occurrence. The policy coverage shall include:

- (a) Premises operations and mobile equipment.
- (b) Products and completed operations.
- (c) Broad form property damage (including completed operations).
- (d) Explosion, collapse and underground hazards.
- (e) Personal injury
- (f) Contractual liability.
- (g) \$2,000,000 general aggregate limit.

11.2.1.3 Automobile Liability Insurance

Primary insurance coverage shall be written on ISO Business Auto coverage form for all owned, hired and non-owned automobiles or symbol 1 (any auto). The policy shall have a combined single limit of not less than one million dollars (\$1,000,000) for bodily injury and property damage, per occurrence.

If the Contractor is transporting one or more non-employee passengers in performance of contract services, the automobile liability policy shall have a combined single limit of two million dollars (\$2,000,000) for bodily injury and property damage per occurrence.

If the Contractor owns no autos, a non-owned auto endorsement to the General Liability policy described above is acceptable.

11.2.1.4 Increased General Liability and Automobile Liability Insurance Limits for Larger Construction Projects

Construction contracts for projects of one million (\$1,000,000) or over and less than three million (\$3,000,000) require limits of not less than three million (\$3,000,000) in General Liability and Auto Liability coverage.

Construction contracts for projects of three million (\$3,000,000) or over and less than five million (\$5,000,000) require limits of not less than five million (\$5,000,000) in General Liability and Auto Liability coverage.

Construction contracts for projects of five million (\$5,000,000) or over require limits of not less than ten million (\$10,000,000) in General Liability and Auto Liability.

11.2.1.5 Course of Construction/Installation (Builder's Risk) Property Insurance

Course of Construction/Installation (Builder's Risk) Property Insurance providing all risk, including theft coverage for all property and materials to be used on the project. The insurance policy shall not have any coinsurance penalty.

11.2.1.6 Umbrella Liability Insurance

An umbrella (over primary) or excess policy may be used to comply with limits or other primary coverage requirements. When used, the umbrella policy shall apply to bodily injury/property damage, personal injury/advertising injury and shall include a "dropdown" provision providing primary coverage for any liability not covered by the primary policy. The coverage shall also apply to automobile liability.

11.2.1.7 Continuing Products/Completed Operations Liability Insurance

Contractor shall provide Continuing Products/Completed Operations Liability Insurance with a limit of not less than five million (\$5,000,000) for each occurrence for at least three years following substantial completion of the work on projects over one million (\$1,000,000).

11.2.1.8 Environmental Liability Insurance

Any contract that involves the use, handling, transportation, storage, abatement, containment or testing of any substance that is potentially toxic or hazardous to the environment, including but not limited to, those listed as hazardous by the United States Department of Transportation or the CAL OSHA "Director's list of Hazardous Substances" or listed as radioactive by the Nuclear Regulatory Commission, shall have the following additional requirements:

Environmental Liability Insurance with a combined single limit of not less than five million (\$5,000,000) per claim or occurrence and a separate aggregate for the contract project. The required additional insured endorsement shall protect the County without any restrictions.

If insurance coverage is provided on a "claims made" policy, the "retroactive date" shall be shown and must be before the date of the start of the contract work. The claims made insurance shall be maintained or "tail" coverage provided for a minimum of five (5) years after contract completion.

11.2.2 Subcontractor Insurance Requirements.

The Contractor agrees to require all parties or subcontractors, including architects or others it hires or contracts with related to the performance of this Contract to provide insurance covering the contracted operations with the basic requirements identified in Paragraphs 11.2.3 through 11.2.11 and 3.18 (indemnification), and the insurance specifications identified under Paragraph 11.2, (including waiver of subrogation rights) and naming the County as an additional insured. The Contractor agrees to monitor and review all such coverage and assumes all responsibility ensuring that such coverage is provided as required here.

11.2.2.1 Additional Insured

All policies, except for the Workers' Compensation, Errors and Omissions and Professional Liability policies, shall contain endorsements naming the County and its officers, employees, agents and volunteers as additional insureds with respect to liabilities arising out of the performance of services hereunder. The additional insured endorsements shall not limit the scope of coverage for the County to vicarious liability but shall allow coverage for the County to the full extent provided by the policy. Such additional insured coverage shall be at least as broad as Additional Insured (Form B) endorsement form ISO, CG 2010.11 85.

11.2.2.2 Waiver of Subrogation Rights

The Contractor shall require the carriers of required coverages to waive all rights of subrogation against the County, its officers, employees, agents, volunteers, contractors and subcontractors. All general or auto liability insurance coverage provided shall not prohibit the Contractor and Contractor's employees or agents from waiving the right of subrogation prior to a loss or claim. The Contractor hereby waives all rights of subrogation against the County.

11.2.3 Policies Primary and Non-Contributory

All policies required herein are to be primary and non-contributory with any insurance or self-insurance programs carried or administered by the County.

11.2.4 Severability of Interests

The Contractor agrees to ensure that coverage provided to meet these requirements is applicable separately to each insured and there will be no cross liability exclusions that preclude coverage for suits between the Contractor and the County or between the County and any other insured or additional insured under the policy.

11.2.5 Proof of Coverage

The Contractor shall furnish Certificates of Insurance to the County Department administering the contract evidencing the insurance coverage at the time the contract is executed, additional endorsements, as required shall be provided prior to the commencement of performance of services hereunder, which certificates shall provide that such insurance shall not be terminated or expire without thirty (30) days written

notice to the Department, and Contractor shall maintain such insurance from the time Contractor commences performance of services hereunder until the completion of such services. Within fifteen (15) days of the commencement of this Contract, the Contractor shall furnish a copy of the Declaration page for all applicable policies and will provide complete certified copies of the policies and endorsements immediately upon request.

11.2.6 Acceptability of Insurance Carrier

Unless otherwise approved by Risk Management, insurance shall be written by insurers authorized to do business in the State of California and with a minimum "Best" Insurance Guide rating of "A- VII".

11.2.7 Deductibles and Self-Insured Retention

Any and all deductibles or self-insured retentions in excess of \$10,000 shall be declared to and approved by Risk Management.

11.2.8 Failure to Procure Coverage

In the event that any policy of insurance required under this contract does not comply with the requirements, is not procured, or is canceled and not replaced, the County has the right but not the obligation or duty to cancel the contract or obtain insurance if it deems necessary and any premiums paid by the County will be promptly reimbursed by the Contractor or County payments to the Contractor will be reduced to pay for County purchased insurance.

11.2.9 Insurance Review

Insurance requirements are subject to periodic review by the County. The Director of Risk Management or designee is authorized, but not required, to reduce, waive or suspend any insurance requirements whenever Risk Management determines that any of the required insurance is not available, is unreasonably priced, or is not needed to protect the interests of the County. In addition, if the Department of Risk Management determines that heretofore unreasonably priced or unavailable types of insurance coverage or coverage limits become reasonably priced or available, the Director of Risk Management or designee is authorized, but not required, to change the above insurance requirements to require additional types of insurance coverage or higher coverage limits, provided that any such change is reasonable in light of past claims against the County, inflation, or any other item reasonably related to the County's risk.

Any change requiring additional types of insurance coverage or higher coverage limits must be made by amendment to this contract. Contractor agrees to execute any such amendment within thirty (30) days of receipt.

Any failure, actual or alleged, on the part of the County to monitor or enforce compliance with any of the insurance and indemnification requirements will not be deemed as a waiver of any rights on the part of the County.

12 UNCOVERING AND CORRECTION OF WORK

12.1 Uncovering of Work

12.1.1 Specific Request. If a portion of the Work is covered contrary to the County's request or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the County, be uncovered for the County examination and be replaced at the Contractor's expense within the Contract Sum and without change in the Contract Time.

12.1.2 No Specific Request. If a portion of the Work has been covered, which the County has not specifically requested to examine prior to its being covered, the County may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the County's expense. If such Work is not in accordance with the Contract Documents, correction shall be at the Contractor's expense within the Contract Sum unless the condition was caused by the County or a Separate Contractor in which event the County shall be responsible for payment of such costs.

12.2 Correction of Work

12.2.1 Before or After Final Completion. The Contractor shall promptly correct Work rejected by the County as failing to conform to the requirements of the Contract Documents, whether discovered before or after Final Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing, inspections, and compensation for the County's services and expenses made necessary thereby, shall be at the Contractor's expense within the Contract Sum.

12.2.1.1 If Contractor fails to promptly correct Work rejected by the County, as failing to conform to the requirements of the Contract Documents, or fails to perform the Work in accordance with the Contract Documents, the County may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated by Contractor, or until the County chooses to complete the Work. Contractor shall not be entitled to any adjustment of Contract Time or Contract Sum as a result of any such order. The County and County's Project Manager shall have no duty or responsibility to Contractor or any other party to exercise the right to stop the Work.

12.2.2 After Final Completion.

12.2.2.1 In addition to the Contractor's warranty obligations under Paragraph 3.5, if, within one year after the date of Final Completion of the Work or after the date for commencement of warranties established under Subparagraph 3.5.2, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the County to do so, unless the County has previously given the Contractor a written acceptance of such condition. Such corrective work shall be performed without charge or cost to County after Final Completion of the Work. The County shall give such notice promptly after discovery of the condition. If the Contractor fails to correct nonconforming Work within a reasonable time after receipt of notice from the County, the County may correct the nonconforming work in accordance with Paragraph 2.5.

12.2.3 Removal. The Contractor shall remove from the Site portions of the Work which are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the County.

12.2.4 Destruction or Damage. The Contractor shall bear the cost within the Contract Sum of correcting destroyed or damaged construction, whether completed or partially completed, of the County or Separate Contractor caused by the Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.

12.2.5 No Limitation. Nothing contained in this Paragraph 12.2 shall be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents. Establishment of the one-year period for correction of Work as described in Subparagraph 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

12.3 Acceptance of Nonconforming Work

If the County prefers to accept Work which is not in accordance with the requirements of the Contract Documents, the County may do so instead of requiring its removal and correction. Such option shall be exercised solely by notice to Contractor and shall not be implied from any act or omission by the County. In such case, the Contract Sum will be reduced by an amount equal to the cost of replacing the Work to make it as originally specified or intended. Such adjustment shall be effected whether or not Final Payment has been made.

13 TERMINATION OR SUSPENSION OF THE CONTRACT

13.1 Termination by the Contractor

13.1.1 Work Stoppage Not Caused by County. If the Work is stopped for a period of ninety (90) consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons: issuance of an order of a court or other public authority having jurisdiction which requires all Work to be stopped; an act of government, such as a declaration of national emergency which requires all Work to be stopped; and Contractor has given County written notice within ten (10) days of the occurrence of such ground for termination, then the Contractor may, upon thirty (30) additional calendar days written notice to County and, unless the reason has theretofore been cured, terminate its performance and recover from the County payment for Work executed to date and reasonable demobilization costs.

13.1.2 Work Stoppage Caused by County. If the Work is stopped for a period of 120 consecutive days through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing portions of the Work under contract with the Contractor because the County has persistently failed to fulfill the County's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may give County ten (10) calendar days written notice to cure. If the County fails to cure, the Contractor may, upon ten (10) additional calendar days' written notice to the County, terminate the Contract and recover from the County as provided in Subparagraph 13.1.1 above.

13.2 Termination by the County for Cause

13.2.1 Grounds. The County may terminate the Contractor's performance of the Contract for cause if:

- (1) Contractor fails promptly to begin the Work under the Contract Documents; or
- (2) Contractor refuses or fails to supply enough properly skilled workers or proper materials; or
- (3) Contractor fails to perform the Work in accordance with the Contract Documents, including conforming to applicable standards set forth therein in constructing the Project, or refuses to remove and replace rejected materials or unacceptable Work; or
- (4) Contractor discontinues the prosecution of the Work (exclusive of work stoppage: (i) due to termination by County; or (ii) due to and during the continuance of a Force Majeure event or suspension by County); or
- (5) Contractor fails to resume performance of Work which has been suspended or stopped, within a reasonable time after receipt of notice from County to do so or (if applicable) after cessation of the event preventing performance; or
- (6) Any representation or warranty made by Contractor in the Contract Documents or any certificate, schedule, instrument, or other document delivered by Contractor pursuant to the Contract Documents shall have been false or materially misleading when made; or
- (7) Contractor fails to make payment to Subcontractors for materials or labor in accordance with the respective Contract Documents and Applicable Law; or
- (8) Contractor disregards laws, ordinances, or rules, regulations, or orders of a public authority having jurisdiction; or
- (9) Contractor otherwise is guilty of breach of a provision of the Contract Documents; or
- (10) Contractor becomes insolvent, is adjudicated bankrupt, or makes a general assignment for the benefit of creditors and fails to provide County with adequate assurances of Contractor's ability to satisfy its contractual obligations.

A receiver, trustee, or other judicial officer shall not have any right, title, or interest in or to the Contract. Upon that person's appointment, County has, at its option and sole discretion, the right to immediately cancel the Contract and declare it null and void.

13.2.2 County's Rights. When any of the reasons specified in Subparagraph 13.2.1 exist, the County may, in addition to and without prejudice to any other rights or remedies of the County, and after giving the Contractor five (5) calendar days written notice, terminate employment of the Contractor and may:

- (1) Take possession of the Site and of all materials, equipment, tools and construction equipment, and machinery thereon owned by the Contractor;
- (2) Suspend any further payments to Contractor;
- (3) Accept assignment of subcontracts pursuant to Paragraph 5.3; and

(4) Finish the Work by whatever reasonable method the County may deem expedient. Upon request of the Contractor, the County shall furnish to the Contractor a detailed accounting of the costs incurred by the County in finishing the Work.

13.2.3 Costs. If County's costs to complete and damages incurred due to Contractor's default exceed the unpaid Contract balance, the Contractor and Contractor's Sureties shall pay the difference to the County.

13.2.4 Erroneous Termination. If it has been adjudicated or otherwise determined that County has erroneously or negligently terminated the Contractor for cause, then said termination shall automatically convert to a termination by the County for convenience as set forth in Paragraph 13.4.

13.3 Suspension by the County

13.3.1 Suspension For Convenience.

13.3.1.1 The County may, without cause, order the Contractor in writing to suspend, delay, or interrupt the Work in whole or in part for such period of time as the County may determine.

13.3.1.2 Contractor shall promptly recommence the Work upon written notice from County directing Contractor to resume the Work. The Contract Sum and Contract Time shall be adjusted for any increases in the cost and time caused by suspension, delay, or interruption provided Contractor complies with the Change Order and Claims proceedings set forth the Articles 4 and 7 of these General Conditions. No adjustment shall be made to the extent:

- (1) That performance is, was, or would have been so suspended, delayed, or interrupted by another cause for which the Contractor is responsible; or
- (2) That an equitable adjustment is made or denied under another provision of the Contract.

13.3.2 Suspensions For Cause. County has the authority by written order to suspend the Work without liability to County wholly or in part for Contractor's failure to:

- (1) Correct conditions unsafe for the Project personnel or general public; or
- (2) Carry out the Contract; or
- (3) Carry out orders of County.

13.3.3 Responsibilities of Contractor During Suspension Periods. During periods that Work is suspended, Contractor shall continue to be responsible for the Work and shall prevent damage or injury to the Project, provide for drainage, and shall erect necessary temporary structures, signs or other facilities required to maintain the Project and continue to perform according the Article 10 of these General Conditions.

13.4 Termination by the County for Convenience

13.4.1 Grounds. Without limiting any rights which County may have by reason of any default by Contractor hereunder, County may terminate Contractor's performance of the Contract in whole or in part, at any time, for convenience or any other reason upon written notice to Contractor. Such termination shall be effective as of the date stated in

the written notice, which shall be no less than ten (10) calendar days from the date of the notice.

13.4.2 Contractor Actions. Immediately upon receipt of such notice, Contractor shall: (i) cease performance of the Work of this Agreement to the extent specified in the notice; (ii) take actions necessary or that the County may direct, for the protection and preservation of the Work; (iii) settle outstanding liabilities, as directed by County; (iv) transfer title and deliver to County Work in progress, specialized equipment necessary to perform the Work, and Record Documents; and, (v) except for Work directed by County to be performed, incur no further costs or expenses. At the option of the County, all or any of the subcontracts entered into by Contractor prior to the date of termination shall be terminated or shall be assigned to County.

13.4.3 Compensation. If the Parties are unable to agree on the amount of a termination settlement, the County shall pay the Contractor the following amounts:

- (1) For Work performed before the effective date of termination, the total (without duplication of any items) of:
 - (a) The Cost of the Work; and
 - (b) A sum, as profit on (1)(a), above, determined by the County to be fair and reasonable;
- (2) The reasonable costs of settlement of the Work terminated, including:
 - (a) Accounting, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data; and
 - (b) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.

In no event shall Contractor be entitled to recover overhead or profit on Work not performed.

13.5 Authority of County

In determination of the question of whether there has been such noncompliance with the Contract as to warrant the suspension or termination of the Contract, the decision of the County will be binding on all parties.

13.6 Termination by Acts of God

In the event the Project is damaged by an "Act of God" as defined in Public Contract Code section 7105, the County may elect to terminate the Contract. If the County terminates the Contract pursuant to this paragraph, compensation to the Contractor shall be solely for any Work completed, any materials purchased, any bonds and insurance paid and for any equipment used prior to the occurrence of the "Act of God".

14 EMPLOYMENT OF LABOR/WAGE RATES

14.1 Determination of Prevailing Rates

Pursuant to California Labor Code, Part VII, Chapter 1, Article 2, Sections 1770, et seq., the County has obtained from the Director of the Department of Industrial Relations (DIR) pursuant to the California Labor Code, the general prevailing rates of per diem wages and the prevailing rates for holiday and overtime work in the locality in which the Work is to be performed. Copies of said rates are on file with the Department, San Bernardino County, will be made available for inspection during regular business hours, are included elsewhere in the specifications for the Work in the Project, and are also available online at www.dir.ca.gov/dlsr/DPreWageDetermination.htm. The wage rate for any classification not listed, but which may be required to execute the Work, shall be commensurate and in accord with specified rates for similar or comparable classifications for those performing similar or comparable duties. In accordance with Section 1773.2 of the California Labor Code, the Contractor shall post, at appropriate and conspicuous locations on the jobsite, a schedule showing all applicable prevailing wage rates and shall comply with the requirements of Labor Code Sections 1773, et seq.

14.1.1 Federal Funding Requirements.

14.1.1.1 If federal funding is involved with the Project the Federal Davis-Bacon Act (40 U.S.C. 3141 et seq.), as supplemented by Department of Labor regulations (29 C.F.R. Part 5), will apply to the Project and those requirements shall be complied with by Contractor. The Contractor and all Subcontractors and Sub-subcontractors are required to pay their employees and workers a wage not less than the minimum wage for the work classification as specified in both the Federal and California wage decisions. The higher of the two applicable wage classifications, either California prevailing wage or Davis-Bacon Federal prevailing wage, will be enforced for all Work under this Contract. If applicable, the Contractor is responsible for ensuring Subcontractor compliance with Davis-Bacon and related federal law requirements.

14.1.1.2 Contractor must comply with the Copeland "Anti-Kickback" Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 C.F.R. Part 3).

14.1.1.3 Contractor must comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3701 et seq.) as supplemented by Department of Labor regulations (29 C.F.R. Part 5).

14.2 Subcontractors

14.2.1 Ineligible Subcontractors. Pursuant to the provisions of Section 1777.1 of the California Labor Code, the Labor Commissioner publishes and distributes a list of contractors ineligible to perform work as a contractor or subcontractor on a public works project. This list of debarred contractors is available from the DIR website at http://www.dir.ca.gov/dir/Labor_law/DSLE/Debar.html. Any contract 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, and any public money that may have been paid to a debarred subcontractor by a contractor on the project shall be returned to the County. 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.

14.2.1.1 Excluded Parties List System (EPLS). Neither Contractor nor its employees or subcontractors shall be named on the EPLA, which includes information regarding entities debarred, suspended, proposed for debarment,

excluded or disqualified under the non-procurement common rule, or otherwise declared ineligible from receiving Federal contracts, certain subcontracts, and certain Federal assistance and benefits. The EPLS can be accessed at <http://www.epls.gov/>. This information may include names, addresses, DUNS numbers, Social Security Numbers, Employer Identification Numbers or other Taxpayer Identification Numbers, if available and deemed appropriate and permissible to publicize by the agency taking the action. Contractor is aware that although United States General Service Administration operates this system, individual agencies are responsible for the timely reporting, maintenance, and accuracy of their data.

14.2.1.2 Certification. Contractor certifies that neither it nor its principals or Subcontractors are presently disbarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency as required by Executive Order 12549.

14.2.2 Employment of Apprentices. The Contractor and all Subcontractors performing Work for the Project shall comply with all requirements pertaining to the employment of apprentices pursuant to the provisions of the California Labor Code including, but not limited to, California Labor Code Section 1777.5.

14.3 Payment of Prevailing Rates

There shall be paid each worker of the Contractor, or any Subcontractor, of any tier, engaged in the Work, not less than the general prevailing wage rate, regardless of any contractual relationship which may be alleged to exist between the Contractor or any Subcontractor, of any tier, and such worker.

14.4 Prevailing Rate Penalty

The Contractor shall, as a penalty, forfeit two hundred dollars (\$200.00) to the County for each calendar day or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of the Department of Industrial Relations for such work or craft in which such worker is employed by the Contractor or by any Subcontractor in connection with the Work. Pursuant to California Labor Code Section 1775, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day, or portion thereof, for which each worker was paid less than the prevailing wage rate, shall be paid to each worker by the Contractor.

14.5 Payroll Records

14.5.1 Pursuant to California Labor Code Section 1776, the Contractor and each Subcontractor, of any tier, shall keep accurate certified payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by them in connection with the Work. The payroll records enumerated herein shall be verified by a written declaration made under penalty of perjury that the information contained in the payroll record is true and correct and that the Contractor or Subcontractor has complied with the requirements of the California Labor Code Sections 1771, 1811, and 1815 for any Work performed by his or her employees on the Project. The payroll records shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:

(1) a certified copy of an employee's payroll record shall be made available for inspection or furnished to such employee or his/her authorized representative on request;

(2) a certified copy of all payroll records shall be made available for inspection or furnished upon request to the County, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards of the Department of Industrial Relations;

(3) a certified copy of payroll records shall be made available upon request to the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the County, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been previously provided to the County, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, the requesting party shall, prior to being provided the records, reimburse the cost of preparation by the Contractor, Subcontractor and the entity through which the request was made; the public shall not be given access to such records at the principal office of the Contractor;

(4) the Contractor shall file a certified copy of the payroll records with the entity that requested such records within ten (10) days after receipt of a written request; and

(5) copies provided to the public, by the County, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor or any Subcontractor of any tier, performing a part of the Work shall not be marked or obliterated. The Contractor shall inform the County of the location of payroll records, including the street address, city and county and shall, within five (5) working days, provide a notice of a change of location and address.

14.5.2 In the event Contractor does not comply with the requirements of this subsection, the Contractor shall have ten (10) days in which to comply, subsequent to a receipt of written notice specifying in what respects the Contractor must comply herewith. Should non-compliance still be evident after a ten (10) day period, the Contractor shall, as a penalty to the County, forfeit one-hundred dollars (\$100.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalty shall be withheld from any portion of the Contract Sum then due or to become due to the Contractor.

14.5.3 State Construction Bond and Weekly Electronic Certified Payroll Records.

14.5.3.1 If the Project is funded in whole or in part from a bond issued by the State to fund public works projects, the following requirements shall apply:

14.5.3.1.1 The Project is subject to the requirements of Division 2, Part 7, Chapter 1 of the California Labor Code and Title 8, Division 1, Chapter 8, Subchapter 4.5 of the California Code of Regulations. Under the above-cited Chapter of the Labor Code and Subchapter of the California Code of Regulations, this Project is subject to monitoring by the Compliance Monitoring Unit (CMU) of the California Department of Industrial Relations, Division of Labor Standards Enforcement. In addition, under the above-cited Chapter of the Labor Code and Subchapter of the California Code of Regulations, the Contractor (and their Subcontractors via the Contractor) shall submit on a weekly basis electronic certified payroll reports directly to the CMU and the County using the eCPR system – MyLCM or the County's LCPTracker Program. Further, the Contractor (and their Subcontractors via the Contractor) shall submit directly to the CMU accurate payroll records within 10 days of any separate request by the CMU. To enroll in MyLCM, obtain additional information and assistance, go to the third

party non-government website at <https://app.mylcm.com>. Subcontractors may also enroll in MyLCM at the website.

14.5.3.1.2 At the Project Site the Contractor shall post throughout the term of the Contract a notice (in English and Spanish) as required by, and containing the language provided in section 16451(d) of Title 8 of the California Code of Regulations. The notice (in the form of posters) is available on the CMU website at http://www.dir.ca.gov/dlse/cmu/Forms_Publications_and_Resources.html, at the Division of Labor Standards Enforcement District Office or by e-mailing a request to CMU@dir.ca.gov. The notice will indicate to employees and others that the worksite falls under regulations of the CMU. The local CMU District Office is located at the following address: CMU District Office – San Bernardino, 464 W. Fourth Street, Room 348, San Bernardino, CA 92401, (909) 383-4334 or (909) 889-8120.

14.5.3.1.3 Failure to meet the requirements above will subject the Contractor to sanctions/withholding of Contract payments as allowed by law for any delinquent or inadequate certified payroll records. Payroll violations are required to be reported to the State and/or Federal government.

14.6 Limits on Hours of Work

Pursuant to California Labor Code Section 1810, eight (8) hours of labor shall constitute a legal day's work. Pursuant to California Labor Code Section 1811, the time of service of any worker employed at any time by the Contractor or by a Subcontractor, or any tier, upon the Work or upon any part of the Work, is limited and restricted to eight (8) hours during any one calendar day and forty (40) hours during any one calendar week, except as hereafter provided. Notwithstanding the foregoing provisions, Work performed by employees of Contractor or any Subcontractor, of any tier, in excess of eight (8) hours per day and forty (40) hours during any one week, shall be permitted upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half (1½) times the basic rate of pay.

14.7 Penalty for Excess Hours

The Contractor shall pay to the County a penalty of twenty-five dollars (\$25.00) for each worker employed on the Work by the Contractor or any Subcontractor, of any tier, for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day and forty (40) hours in any one calendar week, in violation of the provisions of the California Labor Code, unless compensation to the worker so employed by the Contractor is not less than one and one-half (1½) times the basic rate of pay for all hours worked in excess of eight (8) hours per day.

14.8 Contractor Responsibility

Any work performed by workers necessary to be performed after regular work hours or on Sundays or other holidays shall be performed without adjustment of the Contract Sum and/or without additional expense to the County.

14.9 Employment of Apprentices

Any apprentices employed to perform any of the Work shall be paid the standard wage to apprentices under the regulations of the craft or trade for which such apprentice is employed, and such individual shall be employed only for the Work of the craft or trade to which such individual is registered. Only apprentices, as defined in California Labor Code Section 3077, who are in training under apprenticeship standards and written

apprenticeship agreements under California Labor Code Sections 3070 et seq. are eligible to be employed for the Work. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which such apprentice is training.

14.10 Apprenticeship Certificate

When the Contractor or any Subcontractor, of any tier, in performing any of the Work employs workers in any Apprenticeable Craft or Trade, as hereinafter defined, the Contractor and such Subcontractor shall apply to the Joint Apprenticeship Committee administering the apprenticeship standards of the craft or trade in the area of the site of the Work for a certificate approving the Contractor or such Subcontractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected, provided, however, that the approval as established by the Joint Apprenticeship Committee or Committees, subsequent to approving the Contractor or Subcontractor, shall arrange for the dispatch of apprentices to the Contractor or such Subcontractor in order to comply with California Labor Code Section 1777.5. The Contractor and Subcontractor shall submit contract award information to the applicable Joint Apprenticeship Committee, which shall include an estimate of journeyman hours to be performed under the Contract, the number of apprentices to be employed, and the approximate dates the apprentices will be employed. There shall be an affirmative duty upon the Joint Apprenticeship Committee or Committees, administering the apprenticeship standards of the crafts or trades in the area of the site of the Work, to ensure equal employment and affirmative action and apprenticeship for women and minorities. Contractors or Subcontractors shall not be required to submit individual applications for approval to local Joint Apprenticeship Committees provided they are already covered by the local apprenticeship standards.

14.11 Ratio of Apprentices to Journeymen

The ratio of Work performed by the apprentices to journeymen, who shall be employed in the Work, may be the ratio stipulated in the apprenticeship standards under which the Joint Apprenticeship Committee operates, but in no case shall the ratio be less than one hour of apprentice work for each five hours of labor performed by a journeyman, except as otherwise provided in California Labor Code Section 1777.5. The minimum ratio of the land surveyor classification shall not be less than one apprentice for each five journeymen. Any ratio shall apply during any day or portion of a day when any journeyman, or the higher standard stipulated by the Joint Apprenticeship Committee, is employed at the site of the Work and shall be computed on the basis of the hours worked during the day by journeymen so employed, except for the land surveyor classification. The Contractor shall employ apprentices for the number of hours computed as above before the completion of the Work. The Contractor shall, however, endeavor, to the greatest extent possible, to employ apprentices during the same time period that the journeymen in the same craft or trade are employed at the site of the Work. Where an hourly apprenticeship ratio is not feasible for a particular craft or trade, the Division of Apprenticeship Standards, upon application of a Joint Apprenticeship Committee, may order a minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification. The Contractor or any Subcontractor covered by this Article and California Labor Code Section 1777.5, upon the issuance of the approval certificate, or if it has been previously approved in such craft, or trade, shall employ the number of apprentices or the ratio of apprentices to journeymen stipulated in the apprenticeship standards. Upon proper showing by the Contractor that it employs apprentices in such craft or trade in the State of California on all of its contracts on an annual average of not less than one apprentice to each five journeymen, the Division of Apprenticeship Standards may grant a certificate exempting the Contractor from the 1-to-5 ratio as set forth in this Article and California Labor Code Section 1777.5. This Article shall not apply

to contracts of general contractors, or to contracts of specialty contractors not bidding for work through a general or prime contractor, involving less than Thirty Thousand Dollars (\$30,000.00) or twenty (20) working days. The term "Apprenticeable Craft or Trade" as used herein shall mean a craft or trade determined as an Apprenticeable occupation in accordance with rules and regulations prescribed by the Apprenticeship Council.

14.12 Exemption from Ratios

The Joint Apprenticeship Committee shall have the discretion to grant a certificate, which shall be subject to the approval of the Administrator of Apprenticeship, exempting the Contractor from the 1-to-5 ratio set forth in this Article when it finds that any one of the following conditions are met:

- (1) unemployment for the previous three-month period in such area exceeds an average of fifteen percent (15%); or
- (2) the number of apprentices in training in such area exceeds a ratio of 1-to-5 in relation to journeymen; or
- (3) the Apprenticeable Craft or Trade is replacing at least one-thirtieth (1/30) of its journeymen annually through apprenticeship training, either on a statewide basis or on a local basis; or
- (4) if assignment of an apprentice to any work performed under the Contract Documents would create a condition which would jeopardize such apprentice's life or the life, safety or property of fellow employees or the public at large, or if the specific task to which the apprentice is to be assigned is of such a nature that training cannot be provided by a journeyman.

When such exemptions from the 1-to-5 ratio between apprentices and journeymen are granted to an organization which represents contractors in a specific trade on a local or statewide basis, the member contractors will not be required to submit individual applications for approval to local Joint Apprenticeship Committees, provided they are already covered by the local apprenticeship standards.

14.13 Contributions to Trust Funds

The Contractor or any Subcontractor, of any tier, who, performs any of the Work by employment of journeymen or apprentices in any Apprenticeable Craft or Trade and who is not contributing to a fund or funds to administer and conduct the apprenticeship program in any such craft or trade in the area of the site of the Work, to which fund or funds other contractors in the area of the site of the Work are contributing, shall contribute to the fund or funds in each craft or trade in which it employs journeymen or apprentices in the same amount or upon the same basis and in the same manner as the other contractors do, but where the trust fund administrators are unable to accept such funds, contractors not signatory to the trust agreement shall pay a like amount to the California Apprenticeship Council. The Division of Labor Standards Enforcement is authorized to enforce the payment of such contributions of such fund(s) as set forth in California Labor Code Section 227. Such contributions shall not result in an increase in the Contract Sum.

14.14 Contractor's Compliance

The responsibility of compliance with this Article for all Apprenticeable Trades or Crafts is solely and exclusively that of the Contractor. All decisions of the Joint Apprenticeship Committee(s) under this Article are subject to the provisions of California Labor Code

Section 3081. In the event the Contractor willfully fails to comply with the provisions of this Article and California Labor Code Section 1777.5, pursuant to California Labor Code Section 1777.7, the Contractor shall:

(1) be denied the right to bid on any public works contract for a period of one (1) year from the date the determination of non-compliance is made by the Administrator of Apprenticeship; and

(2) forfeit, as a civil penalty, the sum of One Hundred Dollars (\$100.00) for each calendar day of noncompliance.

Notwithstanding the provisions of California Labor Code Section 1727, upon receipt of such determination, the County shall withhold such amount from the Contract Sum then due or to become due. Any such determination shall be issued after a full investigation, a fair and impartial hearing, and reasonable notice thereof in accordance with reasonable rules and procedures prescribed by the California Apprenticeship Council. Any funds withheld by the County pursuant to this Article shall be deposited in the General Fund or other similar fund of the County. The interpretation and enforcement of California Labor Code Sections 1777.5 and 1777.7 shall be in accordance with the rules and procedures of the California Apprenticeship Council.

14.15 Contractor's Compliance with Law

Contractor, Contractor's agents, and Contractor's employees shall be bound by and comply with all applicable provisions of the Labor Code, and such federal, state and local laws which affect the conduct of the Work. This includes, but is not limited to laws regulating: payment of wages; eight-hour day; overtime, Saturday, Sunday and holiday work; and nondiscrimination.

The Contractor shall forfeit to the County the penalties prescribed in the Labor Code for violations.

14.15.1 Contractor shall comply with all Executive Orders, statutes or regulations regarding the stabilization of wages and prices in the construction industry.

14.16 Equal Employment Opportunity

14.16.1 Contractor agrees to fully comply with the laws and programs (including regulation issued pursuant thereto) which are listed following this paragraph. Such compliance is required to the extent such laws, programs and their regulations are, by their own terms, applicable to this Contract. Contractor warrants that it will make itself thoroughly familiar with the applicable provisions of said laws, programs and regulations prior to commencing performance of the Contract. Copies of said laws, programs and regulations are available upon request from County. To the extent applicable the provisions of said laws, programs and regulations are deemed to be a part of this Contract as if fully set forth herein.

14.16.1.1 Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended (38 U.S.C. 4212) and the applicable clause is inserted pursuant to 41 C.F.R. Sections 60-250.5(a).

14.16.1.2 Rehabilitation Act of 1973, as amended (29 U.S.C. 701 et seq.) and the applicable clause is inserted pursuant to 41 C.F.R. Sections 60-741.5(a).

14.16.1.3 California Fair Employment and Housing Act. (CA Government Code Section 12900 et seq.)

14.16.1.4 Civil Rights Act of 1964, as amended (42 U.S.C. 2000a et seq.), Executive Order No. 11246, September 24, 1965, as amended, and the applicable clause is inserted pursuant to 41 C.F.R. Section 60-1.4.

14.16.2 Executive Order 11246.

Contractor certifies that Contractor will fully comply with Executive Order 11246, as amended by Executive Order 11375, and any other executive order amending this order, and the rules and regulations issued thereunder, which are hereby incorporated by reference as appropriate. The Contractor commits itself to such compliance by submitting a properly signed bid or offer or by signing or otherwise accepting a Contract or subcontract.

14.17 Senate Bill 854 (Chapter 28, Statutes of 2014) and Senate Bill 96 (Chapter 28, Statutes of 2017) Requirements

14.17.1 Contractor shall comply with Senate Bill 854 (signed into law on June 20, 2014). The requirements include, but are not limited to, the following:

14.17.1.1 No contractor or subcontractor may be listed on a bid proposal (submitted on or after March 1, 2015) for a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5, with limited exceptions from this requirements for bid purposes only as allowed under Labor Code section 1771.1(a).

14.17.1.2 No contractor or subcontractor may be awarded a contract for public work or perform work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

14.17.1.3 This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

14.17.1.4 As required by the Department of Industrial Relations, Contractor is required to post job site notices, as prescribed by regulation, regarding compliance monitoring and enforcement by the Department of Industrial Relations.

14.17.1.5 Contractors and all subcontractors must submit certified payroll records online to the Labor Commissioner for all new public works projects issued on or after April 1, 2015, and for all public works projects, new or ongoing, on or after January 1, 2016.

- (1)** The certified payroll must be submitted at least monthly to the Labor Commissioner.
- (2)** The County reserves the right to require Contractor and all subcontractors to submit certified payroll records more frequently than monthly to the Labor Commissioner
- (3)** The certified payroll records must be in a format prescribed by the Labor Commissioner.

14.17.1.6 Registration with the Department of Industrial Relations and the submission of certified payroll records to the Labor Commissioner are not required if the public works project is \$25,000 or less when the project is for construction,

alteration, demolition, installation or repair work, or if the public works project is \$15,000 or less when the project is for maintenance work.

14.17.2 Labor Code section 1725.5 states the following:

"A contractor shall be registered pursuant to this section to be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any public work contract that is subject to the requirements of this chapter. For the purposes of this section, "contractor" includes a subcontractor as defined by Section 1722.1.

(a) To qualify for registration under this section, a contractor shall do all of the following:

(1) (A) Register with the Department of Industrial Relations in the manner prescribed by the department and pay an initial nonrefundable application fee of four hundred dollars (\$400) to qualify for registration under this section and an annual renewal fee on or before July 1 of each year thereafter. The annual renewal fee shall be in a uniform amount set by the Director of Industrial Relations, and the initial registration and renewal fees may be adjusted no more than annually by the director to support the costs specified in Section 1771.3.

(B) Beginning June 1, 2019, a contractor may register or renew according to this subdivision in annual increments up to three years from the date of registration. Contractors who wish to do so will be required to prepay the applicable nonrefundable application or renewal fees to qualify for the number of years for which they wish to preregister.

(2) Provide evidence, disclosures, or releases as are necessary to establish all of the following:

(A) Workers' compensation coverage that meets the requirements of Division 4 (commencing with Section 3200) and includes sufficient coverage for any worker whom the contractor employs to perform work that is subject to prevailing wage requirements other than a contractor who is separately registered under this section. Coverage may be evidenced by a current and valid certificate of workers' compensation insurance or certification of self-insurance required under Section 7125 of the Business and Professions Code.

(B) If applicable, the contractor is licensed in accordance with Chapter 9 (commencing with Section 7000) of the Business and Professions Code.

(C) The contractor does not have any delinquent liability to an employee or the state for any assessment of back wages or related damages, interest, fines, or penalties pursuant to any final judgment, order, or determination by a court or any federal, state, or local administrative agency, including a confirmed arbitration award. However, for purposes of this paragraph, the contractor shall not be disqualified for any judgment, order, or determination that is under appeal, provided that the contractor has secured the payment of any amount eventually found due through a bond or other appropriate means.

(D) The contractor is not currently debarred under Section 1777.1 or under any other federal or state law providing for the debarment of contractors from public works.

(E) The contractor has not bid on a public works contract, been listed in a bid proposal, or engaged in the performance of a contract for public works without being lawfully registered in accordance with this section, within the preceding 12 months or since the effective date of the requirements set forth in subdivision (e), whichever is earlier. If a contractor is found to be in violation of the requirements of this paragraph, the period of disqualification shall be waived if both of the following are true:

(i) The contractor has not previously been found to be in violation of the requirements of this paragraph within the preceding 12 months.

(ii) The contractor pays an additional nonrefundable penalty registration fee of two thousand dollars (\$2,000).

(b) Fees received pursuant to this section shall be deposited in the State Public Works Enforcement Fund established by Section 1771.3 and shall be used only for the purposes specified in that section.

(c) A contractor who fails to pay the renewal fee required under paragraph (1) of subdivision (a) on or before the expiration of any prior period of registration shall be prohibited from bidding on or engaging in the performance of any contract for public work until once again registered pursuant to this section. If the failure to pay the renewal fee was inadvertent, the contractor may renew its registration retroactively by paying an additional nonrefundable penalty renewal fee equal to the amount of the renewal fee within 90 days of the due date of the renewal fee.

(d) If, after a body awarding a contract accepts the contractor's bid or awards the contract, the work covered by the bid or contract is determined to be a public work to which Section 1771 applies, either as the result of a determination by the director pursuant to Section 1773.5 or a court decision, the requirements of this section shall not apply, subject to the following requirements:

(1) The body that awarded the contract failed, in the bid specification or in the contract documents, to identify as a public work that portion of the work that the determination or decision subsequently classifies as a public work.

(2) Within 20 days following service of notice on the awarding body of a determination by the Director of Industrial Relations pursuant to Section 1773.5 or a decision by a court that the contract was for public work as defined in this chapter, the contractor and any subcontractors are registered under this section or are replaced by a contractor or subcontractors who are registered under this section.

(3) The requirements of this section shall apply prospectively only to any subsequent bid, bid proposal, contract, or work performed after the awarding body is served with notice of the determination or decision referred to in paragraph (2).

(e) The requirements of this section shall apply to any bid proposal submitted on or after March 1, 2015, to any contract for public work, as defined in this chapter, executed on or after April 1, 2015, and to any work performed under a contract for public work on or after January 1, 2018, regardless of when the contract for public work was executed.

(f) This section does not apply to work performed on a public works project of twenty-five thousand dollars (\$25,000) or less when the project is for construction, alteration, demolition, installation, or repair work or to work performed on a public works project of fifteen thousand dollars (\$15,000) or less when the project is for maintenance work."

14.17.3 Labor Code section 1771.1 states the following:

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

(b) Notice of the requirement described in subdivision (a) shall be included in all bid invitations and public works contracts, and a bid shall not be accepted, nor any contract or subcontract entered into without proof of the contractor or subcontractor's current registration to perform public work pursuant to Section 1725.5.

(c) An inadvertent error in listing a subcontractor who is not registered pursuant to Section 1725.5 in a bid proposal shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive, provided that any of the following apply:

(1) The subcontractor is registered prior to the bid opening.

(2) Within 24 hours after the bid opening, the subcontractor is registered and has paid the penalty registration fee specified in subparagraph (E) of paragraph (2) of subdivision (a) of Section 1725.5.

(3) The subcontractor is replaced by another registered subcontractor pursuant to Section 4107 of the Public Contract Code.

(d) Failure by a subcontractor to be registered to perform public work as required by subdivision (a) shall be grounds under Section 4107 of the Public Contract Code for the contractor, with the consent of the awarding authority, to substitute a subcontractor who is registered to perform public work pursuant to Section 1725.5 in place of the unregistered subcontractor.

(e) The department shall maintain on its Internet Web site a list of contractors who are currently registered to perform public work pursuant to Section 1725.5.

(f) A contract entered into with any contractor or subcontractor in violation of subdivision (a) shall be subject to cancellation, provided that a contract for public work shall not be unlawful, void, or voidable solely due to the failure of the awarding body, contractor, or any subcontractor to comply with the requirements of Section 1725.5 or this section.

(g) If the Labor Commissioner or his or her designee determines that a contractor or subcontractor engaged in the performance of any public work contract without having been registered in accordance with this section, the contractor or subcontractor shall forfeit, as a civil penalty to the state, one hundred dollars (\$100) for each day of work performed in violation of the registration requirement, not to exceed an aggregate penalty of eight thousand dollars (\$8,000) in addition to any penalty registration fee assessed pursuant to clause (ii) of subparagraph (E) of paragraph (2) of subdivision (a) of Section 1725.5.

(h)(1) In addition to, or in lieu of, any other penalty or sanction authorized pursuant to this chapter, a higher tiered public works contractor or subcontractor who is found to have entered into a subcontract with an unregistered lower tier subcontractor to perform any public work in violation of the requirements of Section 1725.5 or this section shall be subject to forfeiture, as a civil penalty to the state, of one hundred dollars (\$100) for each day the unregistered lower tier subcontractor performs work in violation of the registration requirement, not to exceed an aggregate penalty of ten thousand dollars (\$10,000).

(2) The Labor Commissioner shall use the same standards specified in subparagraph (A) of paragraph (2) of subdivision (a) of Section 1775 when determining the severity of the violation and what penalty to assess and may waive the penalty for a first time violation that was unintentional and did not hinder the Labor Commissioner's ability to monitor and enforce compliance with the requirements of this chapter.

(3) A higher tiered public works contractor or subcontractor shall not be liable for penalties assessed pursuant to paragraph (1) if the lower tier subcontractor's performance is in violation of the requirements of Section 1725.5 due to the revocation of a previously approved registration.

(4) A subcontractor shall not be liable for any penalties assessed against a higher tiered public works contractor or subcontractor pursuant to paragraph (1). A higher tiered public works contractor or subcontractor may not require a lower tiered subcontractor to indemnify or otherwise be liable for any penalties pursuant to paragraph (1).

(i) The Labor Commissioner or his or her designee shall issue a civil wage and penalty assessment, in accordance with the provisions of Section 1741, upon determination of penalties pursuant to subdivision (g) and subparagraph (B) of paragraph (1) of subdivision (h). Review of a civil wage and penalty assessment issued under this subdivision may be requested in accordance with the provisions of Section 1742. The regulations of the Director of Industrial Relations, which govern proceedings for review of civil wage and penalty assessments and the withholding of contract payments under

Article 1 (commencing with Section 1720) and Article 2 (commencing with Section 1770), shall apply.

(j)(1) Where a contractor or subcontractor engages in the performance of any public work contract without having been registered in violation of the requirements of Section 1725.5 or this section, the Labor Commissioner shall issue and serve a stop order prohibiting the use of the unregistered contractor or the unregistered subcontractor on all public works until the unregistered contractor or unregistered subcontractor is registered. The stop order shall not apply to work by registered contractors or subcontractors on the public work.

(2) A stop order may be personally served upon the contractor or subcontractor by either of the following methods:

(A) Manual delivery of the order to the contractor or subcontractor personally.

(B) Leaving signed copies of the order with the person who is apparently in charge at the site of the public work and by thereafter mailing copies of the order by first class mail, postage prepaid to the contractor or subcontractor at the address on file with either of the following:

(i) The Contractors' State License Board.

(ii) The Secretary of State.

(3) The stop order shall be effective immediately upon service and shall be subject to appeal by the party contracting with the unregistered contractor or subcontractor, by the unregistered contractor or subcontractor, or both. The appeal, hearing, and any further review of the hearing decision shall be governed by the procedures, time limits, and other requirements specified in subdivision (a) of Section 238.1.

(k) Failure of a contractor or subcontractor, owner, director, officer, or managing agent of the contractor or subcontractor to observe a stop order issued and served upon him or her pursuant to subdivision (j) is guilty of a misdemeanor punishable by imprisonment in county jail not exceeding 60 days or by a fine not exceeding ten thousand dollars (\$10,000), or both.

(l) This section shall apply to any bid proposal submitted on or after March 1, 2015, and any contract for public work entered into on or after April 1, 2015. This section shall also apply to the performance of any public work, as defined in this chapter, on or after January 1, 2018, regardless of when the contract for public work was entered.

(m) Penalties received pursuant to this section shall be deposited in the State Public Works Enforcement Fund established by Section 1771.3 and shall be used only for the purposes specified in that section.

(n) This section shall not apply to work performed on a public works project of twenty-five thousand dollars (\$25,000) or less when the project is for construction, alteration, demolition, installation, or repair work or to work performed on a public works project of fifteen thousand dollars (\$15,000) or less when the project is for maintenance work."

14.17.4 Labor Code section 1771.4 states the following:

"a) All of the following are applicable to all public works projects that are otherwise subject to the requirements of this chapter:

(1) The call for bids and contract documents shall specify that the project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

(2) The awarding body shall post or require the prime contractor to post job site notices, as prescribed by regulation.

(3) Each contractor and subcontractor shall furnish the records specified in Section 1776 directly to the Labor Commissioner, in the following manner:

(A) At least monthly or more frequently if specified in the contract with the awarding body.

(B) In a format prescribed by the Labor Commissioner.

(4) If the contractor or subcontractor is not registered pursuant to Section 1725.5 and is performing work on a project for which registration is not required because of subdivision

(f) of Section 1725.5, the unregistered contractor or subcontractor is not required to furnish the records specified in Section 1776 directly to the Labor Commissioner but shall retain the records specified in Section 1776 for at least three years after completion of the work.

(5) The department shall undertake those activities it deems necessary to monitor and enforce compliance with prevailing wage requirements.

(b) The Labor Commissioner may exempt a public works project from compliance with all or part of the requirements of subdivision (a) if either of the following occurs:

(1) The awarding body has enforced an approved labor compliance program, as defined in Section 1771.5, on all public works projects under its authority, except those deemed exempt pursuant to subdivision (a) of Section 1771.5, continuously since December 31, 2011.

(2) The awarding body has entered into a collective bargaining agreement that binds all contractors performing work on the project and that includes a mechanism for resolving disputes about the payment of wages.

(c) The requirements of paragraph (1) of subdivision (a) shall only apply to contracts for public works projects awarded on or after January 1, 2015.

(d) The requirements of paragraph (3) of subdivision (a) shall apply to all contracts for public work, whether new or ongoing, on or after January 1, 2016."

15 MISCELLANEOUS PROVISIONS

15.1 Governing Law

The Contract shall be governed by the laws of the State of California without regard to choice of law principles thereof. The exclusive venue of any legal action brought by the County, the Contractor, or any Consultant or Subcontractor, with regard to this Agreement or Project, shall be in the Superior Court of California, San Bernardino County, San Bernardino District. Contractor agrees to incorporate this provision into all Subcontractor agreements.

15.2 Successors and Assigns

The County and Contractor respectively bind themselves, their partners, successors, assigns, and legal Project Managers to the other Party hereto and to partners, successors, assigns, and legal Project Managers of such other Party in respect to covenants, agreements, and obligations contained in the Contract Documents. The Contractor shall not sublet or assign the Work of this Contract or any portion thereof or any monies due thereunder, without the express prior written consent and approval of County. County may freely assign its rights hereunder, without limitation, to a separate entity and Contractor agrees, upon such entity's request, to continue and complete performance of the Work upon payment of any undisputed outstanding amounts due Contractor for services performed up to and including the effective date of the assignment, provided adequate proof of funding to completion is offered by assignee. Any entity which shall succeed to the rights of County shall be entitled to enforce the rights of County hereunder. If requested by such entity, Contractor will execute a separate letter or other agreement with such entity further evidencing Contractor's commitment to continue performance of the Contract.

15.3 Written Notice

Written notice shall be deemed to have been duly served if delivered in person, or by US Mail, courier service, or package delivery service (such as UPS and FedEx) to the individuals identified for receipt of notice in the Agreement.

15.4 Rights and Remedies

15.4.1 Cumulative Rights. Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

15.4.2 No Waiver. No action or failure to act by the County shall constitute a waiver of any right or duty afforded the County 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 provided in the Contract Documents or as may be otherwise agreed in writing.

15.5 Tests and Inspections

15.5.1 Required Tests, Inspections, and Costs. If the Contract Documents, County instructions, laws, ordinances, or any public authority require any Work to be specially tested or approved, Contractor shall give notice, in accordance with such authority, of its readiness for observation or inspection, at least two (2) working days prior to being tested or covered up. Whenever the Contractor desires to carry on the Work of this Contract at night or on a Saturday, Sunday, or holiday, Contractor shall request authorization in writing from the County for such work at least two (2) working days in advance so that inspection may be provided if authorization is granted and the Contractor agrees to pay overtime reimbursement of costs for this service. If inspection is by authority other than County, Contractor shall inform County of date fixed for such inspection. All required certificates of inspection shall be secured by Contractor. If any Work required to be tested should be covered up without approval or consent of County, Contractor must, if required by County, uncover the Work for examination and satisfactorily reconstruct at Contractor's expense within the Contract Sum in compliance with Contract. All labor and equipment necessary for exposing and testing shall be furnished by the Contractor at his expense. The Contractor shall replace, at Contractor's expense, any materials or Work damaged by exposure and any faulty materials or workmanship evidenced by such exposure or testing. Where such inspection and testing are to be conducted by an independent laboratory or agency, such materials or samples of materials to be tested shall be selected by such laboratory or agency or County's Project Manager, and not by Contractor. Contractor shall notify County a sufficient time in advance of manufacture of materials to be supplied by it under Contract, which must, by terms of contract, be tested, in order that County may arrange for testing of same at source of supply. Prior to having satisfactorily passed such testing and inspection, or prior to receipt of notice from said Project Manager that such testing and inspection will not be required, the materials shall not be incorporated into the Work without prior approval of County and subsequent testing and inspection. Re-examination of questioned work may be ordered by County and, if so ordered, Work must be uncovered by Contractor. All labor and equipment necessary for exposing and testing shall be furnished by the Contractor at his expense. The Contractor shall replace, at Contractor's expense, any materials or Work damaged by exposure and any faulty materials or workmanship evidenced by such exposure or testing.

15.5.2 Additional Tests and Inspections. If the County or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Subparagraph 15.5.1, the County will instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the County, and the Contractor shall give timely notice to the County of when and where tests and inspections are to be made so that the County may be present for such procedures. Such costs shall be at the County's expense, if applicable. If such procedures for testing, inspection, or approval under Subparagraphs 15.5.1 and 15.5.2

reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for County's testing and inspection services and expenses, shall be at the Contractor's expense, within the Contract Sum. Cost of retesting, reinspection, and reapprovals as described herein, including compensation for the County's testing and inspection services and expenses, shall be paid for by the County and deducted from the Contract Sum by a Change Order or Construction Change Directive.

15.5.3 Documentation. Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the County. Delivery of such documentation is a condition precedent to County's obligation to make payment to Contractor.

15.5.4 Observation of Tests. If the County is to observe tests, inspections, or approvals required by the Contract Documents, County will do so promptly and, where practicable, at the normal place of testing.

15.5.5 Time. Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

15.5.6 Responsibility. Any inspection or approval by any representative or agent of the County will not relieve the Contractor of the responsibility of incorporating in the Work only those materials which conform to the Specifications, and any nonconforming materials shall be removed from the Site whenever identified. Further, inspection or approval by the County does not relieve the Contractor of its obligation to provide Work which conforms in all aspects with the Contract Documents.

15.6 Record Retention and Audits

15.6.1 The County and any entities and/or agencies designated by the County, shall have access to, and the right to audit, and the right to copy at the County's cost, all of Contractor's books, records, Contracts, correspondence, instructions, Drawings, receipts, vouchers, purchase orders, and memoranda relating to the Work, changes in the Work, any Change Orders or Construction Change Directives or written amendments to the Contract, and any claims.

15.6.2 Contractor agrees that the County and its designated representative shall have the right to review, to audit, and to copy any records and supporting documentation pertaining to the performance of this Agreement. Contractor agrees to allow interviews of any employees who might reasonably have information related to such records. Further, Contractor agrees to include a similar right of the County to audit records and interview staff in any subcontract related to performance of this Agreement.

15.6.3 The Contractor shall establish an official file for the Project (the "Official Project File"). The Official Project File shall contain adequate documentation of all actions that have been taken with respect to the Project, in accordance with generally accepted government accounting principles and the requirements for record retention for capital projects constructed with the proceeds of tax exempt bonds. The Contractor will provide a copy of such file to the County at its request or upon termination of this Agreement. The documents to be retained shall include, but are not limited to, Contractor's books, records, Contracts, correspondence, instructions, Drawings, receipts, vouchers, purchase orders, and memoranda relating to the Work, changes in the Work, any Change Orders or Construction Change Directives or Contract Amendments, and any claims.

15.6.4 Contractor agrees to protect records adequately from fire or other damage. When records are stored away from Contractor's principal office, a written index of the location of records stored must be on hand and ready access must be assured. All the Contractor records contained in the Official Project File must be preserved a minimum of five (5) years (the "Record Maintenance Period"). These records shall be subject at all reasonable times to inspection, examination, monitoring, copying, excerpting, transcribing, and audit by the County or designees, by state government auditors or designees, or by federal government auditors or designees. If any litigation, claim, negotiation, audit, or other action involving the records has been started before the expiration of the Record Maintenance Period, the related records must be retained until the completion of the action and resolution of all issues which arise from it if such date is later than the end of the Record Maintenance Period.

15.6.5 All books, account, reports, files, correspondence, data, and other records relating to this Contract shall be maintained by the Contractor and shall be subject at all reasonable times to review, inspection, and audit by the County or its designated Project Managers for a period of five (5) years after Final Completion of the Work. County shall be entitled, upon forty-eight (48) hours written notice, to inspect all books, records, accounts, and the Official Project File kept by Contractor relating to the Work contemplated by the Agreement. Such records shall be produced by the Contractor at a place designated by the County, upon written notice to the Contractor.

15.6.6 Contractor agrees to maintain adequate fiscal and Project books, records, documents, and other evidence pertinent to the Contractor's Work on the Project in accordance with generally accepted accounting principles. Adequate supporting documentation shall be maintained in such detail so as to permit tracing transactions from the invoices, to the financial statement, to the accounting records, and to the supporting documentation. These records shall be maintained for the Record Maintenance Period, and shall be subject to examination and/or audit by County or designees, and state government auditors or designees.

15.6.7 Contractor agrees to make the Official Project File, books, records, supporting documentations and other evidence available to the County, or its designated representatives, during the course of the Project and for the Record Maintenance Period. Contractor agrees to provide suitable facilities for access, monitoring, inspection and copying of said records.

15.6.8 Contractor shall maintain books, records, documents, and other evidence sufficient to reflect properly the amount, receipt, and disposition of all Project funds. The maintenance requirements extend to books of original entry, source documents supporting accounting transactions, the general ledger, subsidiary ledgers, personnel and payroll records, canceled checks, and related documents and records. Source documents include copies of all awards, applications, and required financial and narrative reports. Personnel and payroll records shall include the time and attendance reports for all individuals reimbursed under the award, whether they are employed full-time or part-time. Time and effort reports are also required for consultants and subcontractors. Generally accepted government accounting principles and adequate supporting documentation shall be maintained in such detail so as to provide an audit trail which will permit tracing transactions from the invoices to the financial statement, to the accounting records, and to the supporting documentation for the purpose of determining compliance with Public Contract Code Section 10115 et seq., Government Code Section 8546.7 and 2 CCR Section 1896.60 et seq. (as applicable).

15.7 Independent Contractor

Contractor is employed hereunder to render a service within the scope of its training and experience, and Contractor shall be an independent Contractor and not an employee of the County. As such, County shall not be called upon to assume any liability for the direct payment of any salary to any employee or Subcontractor of Contractor, nor to pay any benefit to any employee or Subcontractor or vendor under the Workers' Compensation laws. None of Contractor's officers, agents, employees, and Subcontractors, nor any of their agents, officers, and employees, shall be deemed officers, agents, employees, and Subcontractors of the County, and the County shall not be liable or responsible to them for anything whatsoever other than liability to Contractor set forth in this Contract.

15.8 Keys and Access

If the County furnishes keys and/or access cards to the Contractor to provide access to County's property, the Contractor shall assure that such access instruments are not duplicated and shall return all such instruments in good condition upon request of the County or prior to receipt of final payment, whichever is earlier. If the Contractor fails to return all access instruments furnished to it, the Contractor shall be responsible, within the Contract Sum, for all Work, materials, and costs associated with reestablishing secured access.

15.9 Survival of Terms

The provisions of the Contract which by their nature survive termination of the Contract or Final Completion, including all warranties, indemnities, payment obligations, and the County's right to audit Contractor's books and records, shall remain in full force and effect after Final Completion or termination of the Contract and shall be binding upon Contractor until any action thereunder is barred according to terms in the Contract Documents or by the applicable statute of limitations or statute of repose.

15.10 Cooperation With Labor

15.10.1 General. The Parties agree and declare that Contractor and County are separate and independent entities and that Contractor has full responsibility for performance of the Work and direction of the work force, subject to and under the duty of Contractor to cooperate with County and its Separate Contractors. Contractor recognizes that in the performance of its Work it may be required to work with and near Separate Contractors and Project Managers of County on the jobsite. The Contractor shall only employ or use labor in connection with the Work capable of working harmoniously with all trades, crafts, and any other individuals associated with the Project. The Contractor shall also use best efforts to minimize the likelihood of any strike, work stoppage, slowdowns, disputes, or other labor disturbance. If the Work is to be performed by trade unions, the Contractor shall make all necessary arrangements to reconcile, without delay, damage, or cost to the County and without recourse to the County, any conflict between the Contract Documents and any agreements or regulations of any kind at any time in force among members or councils that regulate or distinguish the activities that shall not be included in the Work of any particular trade. Except as specifically provided in Paragraph 8.4 herein, Contractor shall be liable to County for all damages suffered by County, and no extensions of Contract Time shall be given to Contractor, as a result of work stoppage, slowdowns, or strikes related to labor disputes.

15.10.2 Picketing.

15.10.2.1 Contractor agrees that should there be picketing or a threat of picketing by any labor organization at or near the Site, Contractor, in cooperation with County, shall establish a reserve gate system and require employees of Contractor, Subcontractors, and suppliers to use one or more designated gates. In that event, it shall be the affirmative obligation of Contractor, as a material consideration of this Agreement to ensure that employees of Contractor, Subcontractors, and suppliers use only the gates or other entryways designated by County from time to time on the Project.

15.10.2.2 Notwithstanding the establishment or non-establishment of a reserve gate, in the event employees of Contractor, Subcontractors or suppliers refuse to work because of any labor disputes or grievances (including any "secondary" or "sympathy" strike or boycott directed against the Project) not caused by County or its Separate Contractors and not the result of an industry-wide strike and that actually prevent performance of the Work, Contractor shall not be relieved of its obligation to supply enough properly skilled workers to perform the Work without interruption or further delay.

15.10.3 Labor Disputes. Contractor and County agree to cooperate fully with each other and their Project Managers and attorneys with respect to any labor dispute that should arise on the Site, including, but not limited to the giving of testimony and evidence to the agent or judge of the National Labor Relations Board or testimony in connection with proceedings in state or federal court. Contractor hereby warrants that it is not now nor will Contractor be delinquent in the payment or reporting to any labor management benefit trust.

15.11 No Personal Liability

Notwithstanding any contrary provision in this Agreement or the Contract Documents, no member, principal, officer, employee, agent, Project Manager, or subsidiary of County (each a "direct affiliate of County"), or member, general partner, limited partner, principal, officer, employee, agent, or Project Manager of any direct affiliate of County (together with direct affiliates of County, the "affiliates of County") shall have any personal liability for the performance of any contractual obligations, or in respect of any liability of County under this Agreement and no monetary or other judgment shall be sought or enforced against any such individuals or their assets, all such personal contractual liability being expressly waived by Contractor. Further, the covenants and obligations contained in this Agreement on the part of County shall be covenants and obligations of the County only, and not of any affiliate of County. No affiliate of County shall be individually liable for breach of any covenant or obligation of County, and no recourse shall be had against the assets of any affiliate of County (except to the extent of County's assets but excluding therefrom any negative capital account of any such affiliate of County) for payment of any sums due or enforcement of any other relief, based upon any claim made by Contractor for breach of any of County's covenants or obligations. Notwithstanding the foregoing, Contractor does not waive any rights under Applicable Law in California concerning the commission of fraud or conversion.

15.12 Antitrust Claims

The Contractor by signing this Agreement hereby certifies that if these services or goods are obtained by means of a competitive bid, the Contractor shall comply with the requirements of the Government Code Sections set out below.

15.12.1 The Government Code Chapter on Antitrust claims contains the following definitions:

- (1) "Public purchase" means a purchase by means of competitive bids of goods, services, or materials by the State or any of its political subdivisions or public agencies on whose behalf the Attorney General may bring an action pursuant to subdivision (c) of Section 16750 of the Business and Professions Code.
- (2) "Public purchasing body" means the State or the subdivision or agency making a public purchase. (Government Code Section 4550.)

15.12.2 In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder. (Government Code Section 4552.)

15.12.3 If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery. (Government Code Section 4553.)

15.12.4 Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action. (See Government Code Section 4554.)

15.13 Compliance with Restrictions

Contractor shall comply with all conditions, restrictions and reservations of record, statutes, regulations, and ordinances, including, without limitation, all pollution control, environmental protection, zoning, planning, land use requirements, all restrictions and requirements affecting the Project and adjoining properties, and disabled access imposed by the County and all other governmental entities including, without limitation, the requirements of any general plan and environmental requirements in connection with use, occupancy and building permits, and requirements of public utilities which affect construction of the Work in effect at the time of execution of this Agreement.

15.14 Legal Requirements

Contract shall perform the Work in accordance with the requirements of all Applicable Laws, codes, ordinances, and regulations even though such requirements are not specifically mentioned in the Specifications or shown on the Drawings. When the Work required by the Contract Documents is in conflict with any such legal provision, the Contractor shall notify the County in writing and shall not proceed with the Work until the County has so ordered.

15.15 Third Party

No provision contained in the contract Documents shall create or give to third parties any claim or right of action against the County.

END OF COUNTY GENERAL CONDITIONS

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NOT FOR BID

DIVISION VI

Part 2 – County Special Conditions

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NOT FOR BID

County Special Conditions

- 1.1 Coordination, Scheduling, and Meetings: The Contractor shall coordinate scheduling all construction activities with the Project Manager from the Project and Facilities Management Department – Project Management, San Bernardino County (County), prior to beginning the activities. The successful bidder shall attend a preconstruction conference at a location and time set by the County.

Construction meetings shall be held at the job site or at a different location as instructed by the County. Details regarding job site meetings will be arranged at the preconstruction conference.

- 1.2 Codes, Ordinances and Regulations: All Work shall conform to the requirements of all Applicable Laws including the California Building Standards Code (as adopted and/or amended by the County), the Americans with Disabilities Act, Uniform Mechanical Code, Uniform Plumbing Code, Uniform Electrical Code, the Standard Plans for Public Works Construction, Construction Safety Orders of the Department of Industrial Relations – Division of Industrial Safety Construction Safety Orders, and all other State and National codes, ordinances, rules and regulations, which apply to the Work.

In any case of conflict between any of these requirements, and the Contract Documents, the requirement that is the most strict shall govern. Nothing in the Contract Documents is to be construed to permit Work not in conformance with these laws, codes and regulations.

- 1.3 Liquidated Damages: Section 8.5.3 of the General Conditions is amended to read the following:

Liquidated Damages shall be per Division IV, "Airfield Safety and Traffic Control."

- 1.4 Safety: The Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property for the duration of the Work, on a 24-hour per day, 7-day week basis. Prior to the start of construction, Contractor shall provide the Project Manager with a copy of Contractor's Illness and Injury Prevention Program as required by California Code of Regulations, title 8, sections 1509 and 3203, and Section 10 of the General Conditions, specifically relating to this Project.

- 1.5 RESERVED

- 1.6 Change Orders: Contractor is referred to Section 7 of the General Conditions.

- 1.7 Sanitary Facilities: Contractor shall be solely and completely responsible to provide and maintain on-site sanitary facilities.

- 1.8 RESERVED

- 1.9 Water & Power: Contractor shall be solely and completely responsible to provide water and power for all Contractor/construction purposes.

- 1.10 Traffic Safety: Contractor shall be solely and completely responsible to provide traffic safety for all Contractor/construction purposes.

- 1.11 RESERVED

- 1.12 RESERVED

Rev. 09/14/07

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DIVISION VII

Wage Rates

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NOT FOR BID

State of California & Federal Labor and Employment Law Overview

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NOT FOR BID

Labor and Employment Law Overview: California¹ (effective January 1, 2023)

Federal law and guidance on this subject should be reviewed together with this section (follows this section)

Summary

- California law prohibits an employer from discriminating and retaliating against employees in a variety of protected classes. Employers must also provide pregnancy accommodations, provide equal pay, allow wage discussions, allow employees to access their personnel files and protect whistleblowers. See EEO, Diversity and Employee Relations.
- California permits preemployment drug testing and background checks, but limits salary history inquiries. See Recruiting and Hiring.
- In California, there are requirements relating to the minimum wage, overtime, meal and rest breaks, breastfeeding breaks and child labor. See Wage and Hour.
- California has laws that relate to employee pay and benefits, including temporary disability insurance, health care continuation, pay statements, wage deductions and wage notice requirements. See Pay and Benefits.
- Under California law, employees are entitled to certain leaves or time off, including family and medical leave, paid family leave, paid sick leave, domestic violence leave and emergency responder leave. See Time Off and Leaves of Absence.
- California law requires employers to provide a safe working environment for their employees, including the development of a written Injury and Illness Prevention Program. California also prohibits smoking in the workplace and using a hand-held cell phone while driving. See Health and Safety.
- When employment ends, California employers must comply with applicable final pay, job reference and mass layoff notification requirements. See Organizational Exit.

Introduction to Employment Law in California

Many consider California the state with the most proscriptive variances from federal law, including broader antidiscrimination protections, a higher minimum wage, paid family leave insurance and paid sick leave.

Select California employment requirements are summarized below to help an employer understand the range of employment laws affecting the employer-employee relationship in the state. An employer must comply with both federal and state law.

An employer must also comply with applicable municipal law obligations affecting the employment relationship, in addition to complying with state and federal requirements.

EEO, Diversity and Employee Relations

Key California requirements impacting EEO, diversity and employee relations are:

Fair Employment Practices

The California Fair Employment and Housing Act (FEHA) prohibits employers with five or more employees from discriminating in the terms and conditions of employment. Protected characteristics include:

¹ - Author: XperTHR Editorial Team

This resource is updated to reflect an increase in the state minimum wage; and amendments regarding time off and leave of absence for the jurisdiction of the state of California, effective January 1, 2021.

<https://www.xperthr.com/employment-law-manual/labor-and-employment-law-overview-california/215/>

- Race;
- Religion;
- Color;
- National origin and ancestry;
- Physical or mental disability;
- Medical condition;
- Genetic information;
- Marital status;
- Sex (including breastfeeding and related conditions);
- Sexual orientation;
- Gender identity/gender expression;
- Pregnancy (including childbirth and related medical conditions);
- Age; and
- Military or veteran status.

Harassment is a form of illegal discrimination that is prohibited under the FEHA.

The FEHA also prohibits retaliation against a person who opposes, reports or assists another person in opposing unlawful discrimination.

Pregnancy Accommodation

The FEHA requires an employer to provide reasonable accommodations to an employee because of pregnancy, childbirth or a related medical condition. Examples of reasonable accommodations include modified duties, schedules or equipment.

Religious Accommodation

The FEHA explicitly provides for religious accommodation in employment. The FEHA requires an employer to show significant difficulty or expense to prove undue hardship, versus the de minimus standard under federal law.

Disability Accommodation

An employer is obligated to provide reasonable accommodations to qualified individuals with disabilities. The FEHA makes it a separate violation for an employer to fail to engage in the interactive process.

Equal Pay

California prohibits discrimination on the basis of sex, race and ethnicity in the payment of wages for substantially similar work. As a defense against a wage discrimination claim, an employer must show that the pay differential is based on a bona fide factor other than sex, such as seniority, merit, quality or quantity of production, education, training or experience. Prior salary, on its own, does not justify a wage differential.

Discussion of Wages

An employer may not prohibit employees from disclosing, discussing or inquiring about their own wages or the wages of another employee and may not discriminate or retaliate against employees for engaging in such conduct.

Access to Personnel Files

California employers must provide current and former employees with access to their personnel files. The employer must make the records available for inspection by the requester at reasonable times and intervals, but generally no later than 30 calendar days after receiving a written request. The employer may charge a fee that equals the actual cost of copying the materials.

Whistleblower Protections

A California employer may not make, adopt or enforce any rule, regulation or policy preventing an employee from being a whistleblower. Also, an employer may not retaliate because an employee:

- Is a whistleblower;
- Refuses to participate in an activity that would result in a violation of a state or federal statute or a violation of or noncompliance with a state or federal rule or regulation; or
- Exercises his or her rights as a whistleblower in any former employment.

A whistleblower is an employee who discloses information to a government or law enforcement agency where the employee has reasonable cause to believe that the information discloses:

- A violation of a state or federal statute;
- A violation of or noncompliance with a state or federal rule or regulation; or
- Unsafe working conditions or work practices in the employee's employment or place of employment.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on EEO, diversity and employee relations practices in California can be found in the [California Employee Handbook Table of Contents](#), [Disabilities \(ADA\): California](#), [EEO - Discrimination: California](#), [EEO - Harassment: California](#), [EEO - Retaliation: California](#), [HR Management: California](#), [Employee Discipline: California](#), [California Workplace Labor and Employment Law Posters](#) and [Does This Law Apply to My Organization in California?](#) Federal requirements can be found in [Disabilities \(ADA\): Federal](#), [EEO - Discrimination: Federal](#), [EEO - Harassment: Federal](#), [EEO - Retaliation: Federal](#), [HR Management: Federal](#) and [Employee Discipline: Federal](#).

Recruiting and Hiring

Key California requirements impacting recruiting and hiring are:

Drug Testing

Drug testing of job applicants is allowed in California. An employer must provide applicants with notice of the drug testing requirement.

Credit Checks

Under the Consumer Credit Reporting Agencies Act, an employer may perform credit checks only for certain positions (e.g., a law enforcement position), and it must provide applicants for such positions with notice that a credit check will be performed. Further, the employer must notify applicants of any adverse action taken on the basis of the credit check.

Criminal Checks

An employer must show that any criminal history information sought is job-related and consistent with business necessity. The employer may not consider certain types of criminal history when making hiring decisions, including:

- An arrest that did not result in conviction;
- Participation in a pre-trial or post-trial diversion program;
- Convictions that have been ordered sealed, expunged or eliminated by statute;
- An arrest, detention or court disposition that occurred while a person was subject to a juvenile court; and
- A nonfelony conviction for marijuana possession that is more than two years old.

Consumer Reports

An employer may seek investigative consumer reports for employment purposes. The Investigative Consumer Reporting Agencies Act requires the employer to provide written notice to applicants before the report is procured.

Ban the Box

The California Fair Employment and Housing Act prohibits an employer with five or more employees from including any question on a job application that asks about the applicant's criminal conviction history. This statewide "ban the box" law also prohibits covered employers from inquiring about or considering an applicant's criminal history until the applicant has received a conditional offer.

Salary History Inquiry Restrictions

California prohibits an employer from relying on a job applicant's salary history as a factor in determining whether to offer employment or what salary to offer. The law bans employers from asking applicants about their salary history, including compensation and benefits, orally or in writing.

An employer may consider or rely on salary history information that an applicant discloses voluntarily and without prompting, but may not rely on prior salary, by itself, to justify any disparity in compensation. In addition, an employer must provide a position's pay scale to an applicant who makes a reasonable request for that information.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on recruiting and hiring practices in California can be found in the [California Employee Handbook Table of Contents](#), [Preemployment Screening and Testing: California](#), [Interviewing and Selecting Job Candidates: California](#) and [Does This Law Apply to My Organization in California?](#) Federal requirements can be found in [Preemployment Screening and Testing: Federal](#) and [Interviewing and Selecting Job Candidates: Federal](#).

Wage and Hour

Key California requirements impacting wages and hours are:

Minimum Wage

The minimum wage in California is \$15.50 per hour.

Overtime

California law requires an employer to pay employees overtime for all hours worked in excess of 40 hours in a workweek and eight hours in a workday. An employer is also required to pay overtime to employees who work a seventh consecutive day in a workweek.

A California employer must pay overtime to nonexempt employees at the rate of one and one-half times the employee's regular rate of pay for all hours worked in excess of 40 in any workweek; for all hours worked in excess of eight, up to and including 12 hours, in any workday; and for the first eight hours of work on the seventh consecutive day of work in a workweek. An employer is further required to pay double the employee's regular rate of pay for all hours worked in excess of 12 in any workday and for all hours worked in excess of eight on the seventh consecutive day of work in a workweek.

Rest Breaks

A California employer must provide nonexempt employees with a paid 10-minute rest period for each four-hour work period. Rest periods must be given as close to the middle of the work period as is practicable. An employee is entitled to one hour of pay for each workday that the rest period is not authorized or permitted.

Meal Breaks

An employer in California must provide nonexempt employees with no less than a 30-minute meal period if they work more than five hours a day. A second meal period of no less than 30 minutes must be provided when the employee's work period is more than 10 hours. An employee is entitled to one hour of pay for each shift that the meal period is not provided.

Breastfeeding Breaks

A California employer must provide a reasonable amount of break time to accommodate an employee desiring to express breast milk for the employee's infant child each time the employee has need to express milk. When possible, the break time should run concurrently with any break time already provided to the employee. Break time that does not run concurrently with the existing break time does not have to be paid. An employer is not required to provide break time if doing so would seriously disrupt the employer's operations.

An employer must provide an employee with the use of a room or other location for the employee to express milk in private. The room or location may include the place where the employee normally works if it otherwise meets certain legal requirements. Under certain circumstances, an employer may claim undue hardship.

An employer must develop and implement a lactation accommodation policy and include it in the employee handbook or policies provided to employees. The employer must distribute the policy to new employees upon hire and when an employee makes an inquiry about or requests parental leave.

Child Labor

Child labor laws in California restrict the occupations in which minors may be employed and the number of hours and times during which they may work.

For most occupations, California had adopted the federal standards into its own regulations. However, California's regulations also forbid minors under the age of 16 from working in additional occupations, involving, among others, several types of machines, railroads, dangerous acids, scaffolding and tobacco.

California also has a complex set of requirements that govern the times during which minors may work. These requirements differ depending on the age of the minor, with separate working time restrictions set out for 16- and 17-year-olds, for 14- and 15-year-olds and for 12- and 13-year-olds.

California requires almost all minors to have a permit to work.

California also has many additional regulations that are specific to the entertainment industry.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on wage and hour practices in California can be found in the [California Employee Handbook Table of Contents](#), [Minimum Wage: California](#), [Overtime: California](#), [Hours Worked: California](#), [Child Labor: California](#), [California Workplace Labor and Employment Law Posters](#) and [Does This Law Apply to My Organization in California?](#) Federal requirements can be found in [Minimum Wage: Federal](#), [Overtime: Federal](#), [Hours Worked: Federal](#) and [Child Labor: Federal](#).

Pay and Benefits

Key California requirements impacting pay and benefits are:

Temporary Disability Insurance

California's State Disability Insurance (SDI) program is a state-run plan administered by the Employment Development Department (EDD). SDI provides partial wage replacement to eligible workers who are unable to perform their regular or customary work due to a nonwork-related illness or injury, including pregnancy-related conditions. The program is funded entirely by taxes withheld from employees' wages.

An employer has the option of establishing a voluntary private plan, subject to EDD approval, in lieu of the state-administered plan.

Health Care Continuation

The California Continuation Benefits Replacement Act (Cal-COBRA) requires group health plans issued to employers with two to 19 employees to offer continuation coverage to qualified beneficiaries (employees and eligible dependents). Cal-COBRA mirrors the federal Consolidated Omnibus Budget Reconciliation Act (COBRA) in terms of qualifying events and timelines. Cal-COBRA's notice requirements and premiums differ from COBRA.

Cal-COBRA also requires group health plans to offer an insured who has exhausted continuation coverage under federal COBRA the opportunity to continue coverage for up to 36 months from the date the insured's continuation coverage began, if the insured is entitled to fewer than 36 months of COBRA coverage.

Payment of Wages

California requires that employees be paid either in cash or by checks that can be cashed in full, without fees or discounts, at an established place of business located within the state.

Direct deposit is permitted if:

- The employee chooses the financial institution;
- The financial institution has a branch in California; and
- The employee voluntarily authorizes the deposit.

Pay Statements

California employers must provide each employee with an accurate, itemized written pay statement in the form of a detachable part of a check or a separate written statement. Statements must be provided each time wages are paid, or at least semimonthly, and must contain the following information:

- Gross wages earned;
- Total hours worked (for nonexempt employees);
- Number of piece-rate units earned and the applicable piece rate (for piece-rate basis employees);
- All deductions;
- Net wages earned;
- Inclusive dates of the pay period;
- Employee's name and last four digits of employee's Social Security Number or employee ID number;
- Employer's name and address;
- All applicable hourly rates in effect during the pay period and the corresponding number of hours worked at each rate by the employee; and
- If paying overtime from a previous pay period, the previous overtime shown as a correction, and the inclusive dates for the pay period the overtime was worked.

Additional requirements exist for piece-rate employees and temporary services employees.

Pay Frequency

Employers must designate paydays in advance.

Nonexempt employees must be paid all wages earned at least twice a month (i.e., semimonthly) on regular paydays designated in advance. Overtime must be paid by the following payday for the next regular payroll period following the payroll period in which the overtime wages were earned.

Exempt employees may be paid once a month on or before the 26th of each month in which the salary is earned, including the amount yet to be earned from the 26th through the end of the month.

Wage Deductions

An employer may make deductions from an employee's wages if required by state or federal law or court order, with the employee's written authorization or for other permissible reasons, including but not limited to child support withholding, creditor garnishments and tax levies.

Wage Notices

The Wage Theft Prevention Act requires an employer to provide notice of certain pay-related information (e.g., the employee's rate of pay and the basis for such rate, the employer's regular pay period, the employer's name) to nonexempt employees at the time of hire and any time the information changes.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on pay and benefits practices in California can be found in the [California Employee Handbook Table of Contents](#), [Insurance and Disability Benefits: California](#), [Health Care Continuation \(COBRA\): California](#), [Payment of Wages: California](#), [Involuntary and Voluntary Pay Deductions: California](#), [California Workplace Labor and Employment Law Posters](#) and [Does This Law Apply to My Organization in California?](#) Federal requirements can be found in [Insurance and Disability Benefits: Federal](#), [Health Care Continuation \(COBRA\): Federal](#), [Payment of Wages: Federal](#) and [Involuntary and Voluntary Pay Deductions: Federal](#).

Time Off and Leaves of Absence

Key California requirements impacting time off and leaves of absence are:

Bereavement Leave

California's Bereavement Leave law requires employers with five or more employees to provide eligible employees with up to five days off from work for the death of a family member, which includes a spouse or domestic partner, child, parent or parent-in-law, sibling, grandparent, or grandchild. An employee's right to bereavement leave is separate and distinct from the right to leave under California's Family Rights Act.

Family and Medical Leave

The California Family Rights Act (CFRA) requires employers with five or more employees to provide eligible employees with up to 12 weeks of job-protected leave in a 12-month period for the employee's or a covered family member's serious health condition, for the birth or placement for adoption or foster care of a child, or for a qualifying exigency related to the covered active duty or call to covered active duty of an employee's spouse, domestic partner, child or parent in the US Armed Forces. While the CFRA and the federal Family and Medical Leave Act (FMLA) parallel each other to a large degree, there are areas in which they differ, such as covered family members and what is considered a serious health condition.

Paid Family Leave

California provides for paid family leave (PFL) benefits under a Family Temporary Disability Insurance program. Eligible employees receive partial wage replacement when taking time off to care for a seriously ill family member (i.e., child, parent, spouse, registered domestic partner, grandparent, grandchild, sibling or parent-in-law), to bond with a child within one year of birth or placement for adoption or foster care, or to participate in a qualifying exigency related to the covered active duty or call to covered active duty of the employee's spouse, domestic partner, or parent who is the US Armed Forces. Employees may take up to eight weeks of PFL in a 12-month period.

Paid Sick Leave

Under the Healthy Workplaces, Healthy Families Act (HWHFA), eligible employees may take paid sick leave for the following reasons:

- Diagnosis, care or treatment of the employee's or a covered family member's existing health condition;
- Preventive care for the employee or a covered family member; and
- For an employee who is a victim of domestic violence, sexual assault or stalking to obtain legal, medical or social services.

Employees may accrue and use up to 24 hours (or three days) of paid sick leave per year. Total accrual, including carryover of unused accrued time, may not exceed 48 hours (or six days) per year.

Other Time Off Requirements Affecting California Employers

In addition to the CFRA and HWHFA, a California employer is also required to comply with more than a dozen other leave and time off laws, such as:

- Pregnancy disability leave (covering employers with five or more employees);
- Kin care leave;
- Family military leave (covering employers with 25 or more employees);
- Bone marrow and organ donor leave (covering employers with 15 or more employees);
- School activities leave (covering employers with 25 or more employees);
- School discipline leave;
- Domestic violence and crime victim leave;
- Leave to attend judicial proceedings;
- Jury duty leave;
- Voting leave;
- Election official leave;
- Military leave;
- Civil Air Patrol leave (covering employers with 15 or more employees);
- Literacy leave (covering employers with 25 or more employees);
- Drug and alcohol rehabilitation leave (covering employers with 25 or more employees);
- Day of rest requirements.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on time off and leave of absence practices in California can be found in the [California Employee Handbook Table of Contents](#), [FMLA: California](#), [Paid Sick Leave: California](#), [Jury Duty: California](#), [Other Leaves: California](#), [USERRA: California](#), [Hours Worked: California](#), [California Workplace Labor and Employment Law Posters](#) and [Does This Law Apply to My Organization in California?](#) Federal requirements can be found in [FMLA: Federal](#), [Paid Sick Leave: Federal](#), [Jury Duty: Federal](#), [Other Leaves: Federal](#), [USERRA: Federal](#) and [Hours Worked: Federal](#).

Health and Safety

Key California requirements impacting health and safety are:

Occupational Safety and Health

California operates its job safety and health programs covering the private sector under a state plan approved by the federal Occupational Safety and Health Administration (OSHA).

Under the California Occupational Safety and Health Act (Cal/OSH Act), a California employer must provide and maintain a safe and healthful workplace for employees and, to that end, is required to develop and maintain a written, effective Injury and Illness Prevention Program that includes, among other things, instruction on safe workplace practices.

Smoke-Free Workplace

California bans smoking, including the use of e-cigarettes, in enclosed spaces of places of employment. An employer needs to take reasonable steps to prevent smoking in the workplace, such as posting "no smoking" signs.

Safe Driving Practices

Drivers in California are prohibited from holding and operating a hand-held cell phone or electronic wireless communications device, but are permitted to use the voice-operated and hands-free functions on the phone or device. However, a driver may use a single swipe or tap of the finger to operate a hand-held phone or device that is mounted on the windshield, dashboard or center console.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on health and safety practices in California can be found in the [California Employee Handbook Table of Contents](#), [HR and Workplace Safety: California](#), [Drugs, Alcohol and Smoking: California](#), [California Workplace Labor and Employment Law Posters](#) and [Does This Law Apply to My Organization in California?](#) Federal requirements can be found in [HR and Workplace Safety \(OSHA Compliance\): Federal](#) and [Drugs, Alcohol and Smoking: Federal](#).

Organizational Exit

Key California requirements impacting organizational exit are:

Final Pay

An employer must pay final wages immediately to an employee who is terminated and upon resignation to an employee who provides at least 72 hours' notice of the intent to resign. If an employee provides fewer than 72 hours' notice of the intent to resign, then an employer may generally mail final wages within 72 hours.

California law does not permit "use it or lose it" vacation policies. Vacation accruals may be capped, but may not be forfeited. Therefore, unused, accrued vacation must be paid out at the end of employment.

Wages owed to a deceased employee must be paid to the surviving spouse or conservator of the estate. Probate of the will need not have occurred before payment is made. The employer must pay up to \$15,000 net for wages due for personal services and unused vacation time. The party requesting payment must present to the employer reasonable proof of identity and an affidavit or a declaration under penalty of perjury making certain statements of fact.

References

California law affords a qualified privilege to an employer who communicates about a former employee's job performance or qualifications to a prospective employer. The communication must be made in good faith.

Mass Layoff Notifications

The California Worker Adjustment and Retraining Notification Act (Cal-WARN Act) provides employees and their families time to prepare for a prospective job loss by requiring an employer to provide advance notice of a plant closing or mass layoff. While the state law is modeled after the federal Worker Adjustment and Retraining Notification Act (WARN Act), there are areas in which they differ, such as the definition of covered employer.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on organizational exit practices in California can be found in the [California Employee Handbook Table of Contents](#), [Payment of Wages: California](#), [Performance Appraisals:](#)

[California, Mass Layoffs, Reductions in Force and Plant Closings: California](#) and [Does This Law Apply to My Organization in California?](#) Federal requirements can be found in [Payment of Wages: Federal](#), [Performance Appraisals: Federal](#) and [Mass Layoffs, Reductions in Force and Plant Closings: Federal](#).

Labor and Employment Law Overview: Federal₂

State law and guidance on this subject should be reviewed together with this section

Summary

- Federal law prohibits an employer from discriminating and retaliating against employees who fall into a variety of protected classes. These restrictions apply to nearly every aspect of employment. It also requires employers to provide disability and religious accommodations, as well as provide men and women equal pay for equal work. In addition, federal law protects the rights of employees to form unions. [EEO, Diversity and Employee Relations](#).
- Employers are restricted by federal law in the use of credit checks and drug testing in hiring, and are required to verify employees' eligibility and authorization to work in the United States. See [Recruiting and Hiring](#).
- The federal Fair Labor Standards Act imposes employer requirements regarding the payment of a minimum wage and overtime; the provision of breaks for meals, rest and breastfeeding; and child labor. See [Wage and Hour](#).
- Employers must comply with federal, state and local laws when paying employees and reporting and remitting amounts withheld from employees' wages to taxing agencies. In addition, employers that provide certain health care benefit and retirement plans must comply with minimum federal standards for most retirement and health plans set up by private employers to protect the interests of participating employees. See [Pay and Benefits](#).
- Federal law requires an employer to provide employees with certain leaves, including family and medical leave and military leave. See [Attendance and Leaves](#).
- Employers are required by federal law to provide a safe working environment for their employees. For certain employers, this includes maintaining a drug-free workplace. See [Health and Safety](#).
- Certain employers are required to provide notice to employees in the event of a plant closing or mass layoff. See [Organizational Exit](#).

Introduction to Federal Employment Law

Employment law governs the duties, rights and obligations within the employer-employee relationship. While some laws are designed to protect employees, others make it possible for employers to effectively manage their workforce. Federal employment law is composed of a complex set of rules made up of various components, such as:

- Executive Orders;
- Statutes;
- Regulations;

2 - Author: XperthHR Editorial Team

This resource is kept under review and updated in line with developments and is enhanced to improve the comprehensiveness, organization and topics covered of federal employment laws.

<https://www.xperthhr.com/employment-law-manual/labor-and-employment-law-overview-federal/210/>

- Agency interpretive materials and opinions; and
- Case law.

However, not all federal laws [necessarily apply](#) to every employer. A law's applicability depends on a variety of factors including the employer's size, the location of its business and employees and the industry in which the employer operates.

In addition, an employer must also comply with state and local laws. If the applicable federal, state and local laws conflict, an employer should comply with the law that provides the greatest benefit to the employee.

Employee and Employer Rights and Responsibilities

Various employment laws provide employees with certain rights, such as the right to:

- Be paid fair wages;
- A safe workplace;
- A workplace free from discrimination and harassment; and
- File complaints against an employer without fear of retaliation.

Along with these rights come certain responsibilities. For example, employees should:

- Perform their work in the employer's best interests;
- Perform their work to the employer's high standards; and
- Not disclose the employer's trade secrets.

Employers, on the other hand, must follow the letter and spirit of the law throughout the employment life cycle. An employer's responsibility in this regard applies not only to current employees but also to prospective and former employees.

Select federal employment requirements are summarized below to help an employer understand the range of employment laws affecting the employer-employee relationship.

EEO, Diversity and Employee Relations

Fair Employment Practices

Fair employment practice laws are designed to ensure equal employment opportunity. Such laws [protect employees from discrimination](#) and require employers to treat employees equally.

[Title VII of the Civil Rights Act of 1964 \(Title VII\)](#) prohibits employment discrimination based on race, color, national origin, sex and religion. The law applies to:

- Private and public employers with 15 or more employees;
- The federal government;
- Employment agencies; and
- Labor organizations.

Enforced by the Equal Employment Opportunity Commission (EEOC), Title VII prohibits discrimination in almost every aspect of employment including:

- Recruitment;
- Hiring;
- Pay and benefits;
- Assignments;
- Promotions;
- Discipline; and
- Discharge.

The EEOC published the [Uniform Guidelines on Employee Selection Procedures](#) to help employers, including federal contractors, comply with federal laws prohibiting discrimination based on race, color, national origin, sex and religion. The guidelines apply to all aspects of the selection process including recruiting, interviewing, testing and performance evaluations, to the extent they are used as a basis for employment decisions. The guidelines provide employers with guidance to help determine if their selection procedures have a disparate (or adverse) impact on a protected class.

Title VII also prohibits:

- [Harassment](#) against an individual based on or motivated by an individual's membership in a legally protected class;
- [Retaliation](#) against an employee for engaging in activity protected under the law, such as complaining about discrimination or harassment, filing a complaint with the EEOC or participating in a discrimination investigation or lawsuit; and
- Discrimination on the basis of [pregnancy, childbirth or related conditions](#) (including failure to treat pregnant employees equally, not preferentially).

While Title VII does not explicitly include sexual orientation or gender identity in its list of protected classes, the US Supreme Court has ruled that the statute's sex discrimination provision prohibits discrimination against employees on the basis of sexual orientation or gender identity.

[Executive Order 11246](#) prohibits federal contractors and certain federally assisted construction contractors and subcontractors from discriminating in employment decisions on the basis of protected characteristics. It also requires government contractors to take affirmative action to ensure that equal opportunity is provided in all aspects of employment.

The [Age Discrimination in Employment Act \(ADEA\)](#) prohibits employers from treating an applicant or employee less favorably because of their age. It applies to:

- Private employers with 20 or more employees;
- Federal, state and local governments and employment agencies, no matter how many employees; and
- Labor unions that operate a hiring hall or have at least 25 members.

The ADEA prohibits employers from discriminating against or harassing an employee who is age 40 or older with respect to all aspects of employment such as hiring, firing, promotions, pay and benefits and training. The ADEA does not protect individuals aged under 40, and does not prohibit an employer from providing more favorable treatment to older individual's within the same protected class (e.g., an employer may provide more generous benefits to employees aged 50 or above than it does to employees aged 40 or over).

The [Older Workers Benefit Protection Act \(OWBPA\)](#) amended the ADEA to prohibit age discrimination in the provision of employment benefits. The OWBPA also imposes certain restrictions on employers seeking releases relating to age discrimination claims.

In addition, the [Genetic Information Nondiscrimination Act \(GINA\)](#) prohibits employers from:

- Harassing or discriminating or retaliating against employees and applicants based on genetic information;
- The use of genetic information in making employment decisions, such as hiring or firing an employee or classifying workers in a way that would deprive them of employment opportunities; or
- Requesting, requiring or purchasing genetic information except under specific circumstances and includes strict limitations on their ability to disclose genetic information.

Disability Accommodation

The [Americans with Disabilities Act \(ADA\)](#) and its amendments prohibit discrimination against an individual with a disability with respect to:

- Job application procedures;
- Hiring and advancement;
- Termination;
- Compensation;
- Job training; and
- Other terms, conditions and privileges of employment.

The law also requires an employer to provide a reasonable accommodation to an individual with a disability who is qualified for the job the individual holds or desires.

Under the ADA an individual with a disability is one who has a physical or mental impairment that substantially limits one or more of the individual's major life activities. This includes individuals who have a record of such impairment and individuals who are regarded as having such an impairment.

When an employer becomes aware that an employee has a disability under the ADA, it is required to engage in an interactive discussion with the employee to determine if a reasonable accommodation can be made that enables the employee to perform the essential functions of the job.

The ADA applies to employers of 15 or more individuals during a 20-week period.

Equal Pay

All employers are required to comply with the Equal Pay Act (EPA). The EPA:

- Prohibits discrimination in the payment of wages on the basis of sex;
- Requires that men and women receive equal pay for equal work in the same establishment; and
- If there is an inequality in wages between men and women, prohibits reducing the wages of either sex to equalize their pay.

Equal work is defined as work that requires equal skill, effort and responsibility, and that is performed under similar working conditions. In other words, the jobs do not need to be identical, but they must be substantially equal.

The EPA defines pay broadly to include salary, overtime, bonuses, vacation and holiday pay, stock options, life insurance and all other benefits and compensation.

The [Lilly Ledbetter Fair Pay Act](#) amended the EPA's 180-day statute of limitations for filing a discriminatory pay charge to allow the limitations period to reset with each new discriminatory action. Accordingly, every time an employee receives a discriminatory payment, the employee has a new period of 180 days in which to file a claim.

Religious Accommodation

Title VII requires employers to provide reasonable accommodations for an employee's sincerely held religious practices or beliefs, unless doing so would create an [undue hardship](#) (i.e., more than a *de minimis* cost or burden on the employer). A sincerely held religious belief is a religious principle that is truly believed by the individual and includes moral and ethical beliefs that assume the function of a religion in the person's life.

Reasonable accommodations may include permitting employees to participate in religious activities (such as prayers) at the workplace, allowing attire that does not conform to a workplace dress code or allowing reasonable scheduling changes or time off to attend religious events.

An accommodation may be considered to create an undue hardship if it:

- Requires more than basic administrative costs;
- Decreases job efficiency or productivity;
- Infringes on other employees' job rights or benefits;
- Threatens workplace safety;
- Imposes on co-workers to share burdensome work; or
- Conflicts with another law or regulation.

Labor Relations

The [National Labor Relations Act \(NLRA\)](#) is the principle federal law governing labor relations; the National Labor Relations Board (NLRB) enforces it. All employers, whether unionized or not, are subject to the NLRA, except for government employers and railroads or airlines that are subject to the [Railway Labor Act](#).

The NLRA grants employees the right to engage in concerted activity for mutual aid and protection, as well as the right to refrain from such activities. This includes activities such as:

- [Forming, joining or assisting a union](#);
- [Bargaining collectively](#) through representatives chosen by employees;
- Discussing wages, benefits and other terms and conditions of employment;
- Seeking union assistance with work related complaints; and
- [Striking and picketing](#), depending on the purpose or means.

In addition, the NLRA prohibits [unfair labor practices \(ULPs\)](#) by employers, including interfering with, restraining or coercing employees who exercise their rights under the NLRA. Unions also are prohibited from certain ULPs, including threatening or coercing employees to support the union, taking adverse action against an employee who has not joined or does not support the union or causing an employer to discriminate against an employee for union-related activity.

Whistleblower Protections

Numerous federal statutes include provisions that prohibit employers from taking adverse or negative [employment actions against whistleblowers](#), including the:

- Fair Labor Standards Act (FLSA);
- Family and Medical Leave Act (FMLA);
- Affordable Care Act (ACA); and
- Occupational Safety and Health Act (OSH Act).

Whistleblowing occurs when an employee reports information or makes a complaint of employer mismanagement, corruption, violation of law or other wrongdoing or misconduct.

Policies and practices should be implemented to provide adequate means for employees to make whistleblowing complaints internally and protect whistleblowers from retaliation.

If an employee engages in protected whistleblowing activity, an employer has an obligation to ensure that the employee is not subject to threats, harassment or other forms of discrimination or retaliation because of the protected activity. Any disciplinary action, demotion, suspension or discharge should be reviewed to make sure the decision is based on conduct unrelated to the employee's protected activity.

Recruiting and Hiring

Credit Checks

The [Fair Credit Reporting Act \(FCRA\)](#) governs how credit information is accessed and may be used in making employment decisions. Although the FCRA provides the national standards for employment screening performed by a consumer reporting agency, it does not apply when an employer conducts its own background checks.

An employer must make a clear and conspicuous written disclosure to an applicant or employee and obtain their prior written authorization before acquiring a consumer report. In addition, an employer must certify to the consumer reporting agency that the report will not be used in violation of any federal or state equal opportunity laws.

Before taking any adverse action based on a consumer credit report obtained from a consumer reporting agency, an employer is required to provide an applicant or employee with:

- A summary of FCRA rights;
- The name, address and telephone number of the consumer reporting agency making the report;
- A copy of the credit report; and
- Information on how to dispute the contents of the report.

Drug Testing

Generally, an employer may require applicants to undergo pre-employment [drug testing](#), so long as the testing is nondiscriminatory and the accuracy of the drug-testing program can be confirmed. An employer may test current employees for drug use, provided the employer demonstrates a legitimate need for requiring the test.

Before extending a job offer, an [employer may ask questions](#) concerning whether the applicant is currently using, or has previously used, alcohol or drugs illegally. But the employer cannot ask how frequently or in what quantities the applicant used drugs or alcohol or any question likely to elicit information about a past addiction.

Criminal Background Checks

While federal law does not prohibit [pre-employment inquiries about arrest and conviction records](#), the EEOC takes the position that disqualifying applicants strictly on the basis of criminal records may have a disparate impact on certain racial and ethnic groups.

The EEOC recommends that employers make an individualized assessment of job requirements and applicants, including, if possible, an interview with the applicant, before rejecting them based on their criminal history. An employer should not reject an applicant based on a criminal conviction unless the conviction is relevant to the job or there is another legitimate business reason.

Consider the following factors before making any decision based on criminal history:

- The nature of the job sought;
- The nature and seriousness of the offense; and
- The amount of time that has passed between the offense and the job application.

Employment Eligibility and Work Authorization

The Immigration Reform and Control Act (IRCA) makes it unlawful to knowingly hire, recruit or continue to employ an individual not authorized to work in the United States. IRCA requires all employers to verify an employee's identity and employment eligibility. In order to do so, employers and employees are required to complete [Form I-9, Employment Eligibility Verification](#), to verify an employee's identity and employment eligibility. An employer is subject to federal civil and criminal sanctions for IRCA violations.

An employer may use [E-Verify](#) to confirm an employees' work eligibility. E-Verify compares the information provided on Form I-9 against data in various federal government databases, and advises employers whether the information submitted matches government records and whether the new hire is authorized to work in the US. Participation in E-Verify is free of charge and voluntary for most employers in most states. However, employers are [required to use it in some states](#) and under some federal contracts.

An employer that uses E-Verify must comply with [notice posting requirements](#).

Wage and Hour

Minimum Wage

The federal Fair Labor Standards Act (FLSA) requires [covered employers](#) to pay [nonexempt employees](#) the federal hourly [federal minimum wage rate](#) for every hour they work. In addition to federal minimum wage requirements, an employer must comply with state and local minimum wage requirements, which may differ from the federal minimum wage. When these rates conflict, an employer must pay covered employees the rate that is most beneficial to the employee.

Complying with minimum wage requirements goes beyond paying employees the correct hourly rate. For example:

- Deductions that reduce an employee's net pay below the minimum wage are generally prohibited, with some exceptions.
- Certain employees, such as students, workers with disabilities, apprentices and messengers, may be paid a [subminimum wage](#).
- Employers may pay workers aged under 20 [a rate that is lower than the minimum wage](#) for the first 90 days of their employment.

Overtime

Most private employers must pay nonexempt employees [overtime pay](#) when they work more than a certain number of hours, usually 40 in a *workweek*, which is defined as a fixed and regularly recurring period of 168 hours, or seven consecutive 24-hour periods. The workweek does not have to coincide with the calendar week.

Overtime hours are paid at one and one-half times an employee's [regular rate](#) of pay. Most often, calculating the amount of an employee's overtime pay is as simple as multiplying the employee's regular rate of pay by one and one-half for each hour of overtime. However, there are many situations that are more complicated.

Rest Breaks

Although an employer is not required to provide rest breaks to employees under the FLSA, if an employer does provide rest breaks it must comply with the FLSA regarding compensability of such time. In general, short rest breaks of 20 minutes or less are counted as hours worked and are usually paid. Breaks lasting longer than 20 minutes do not count as hours worked and are usually not compensated.

Meal Breaks

The FLSA also does not require an employer to provide meal breaks. But if an employer chooses to provide them, the employees must be completely relieved from duty for the purpose of eating regular meals. Employers that do provide meal breaks usually allow at least 30 minutes. The time employees are on the break does not constitute working time. An employee is not completely relieved from duty if they are required to perform any work, whether active or inactive, while eating.

Breastfeeding Breaks

The FLSA requires employers to provide nonexempt female employees with reasonable [break time to express breast milk](#) for a nursing child for one year after the child's birth. The frequency of the breastfeeding breaks may vary. However, the US Department of Labor's basic benchmark is two or three 15 to 20 minute

breaks per eight-hour shift. Additional time should be permitted for the employee to walk to and from the dedicated lactation space, retrieve a pump and other supplies, store the expressed milk in the refrigerator or take other actions necessary to express milk.

An employer is also required to provide a place to express breast milk, other than a bathroom, that is shielded from the view or intrusion of coworkers and the public.

While an employer is not required to pay nursing employees for time spent in breastfeeding breaks, if an employer provides other types of paid rest breaks (e.g., smoking or coffee breaks), it must compensate employees who use that break time to express milk.

An employer with fewer than 50 employees is not subject to FLSA breastfeeding break requirements if compliance would impose an *undue hardship*.

Many [states and localities](#) have enacted similar laws, which may provide greater employee protections and rights than federal law.

Child Labor

The FLSA's [child labor provisions](#) govern the number of hours and the type of work performed by minors. Restrictions may vary depending on the age of the minor. For example, different rules apply to minors under age 18, 16 and 14 regarding the number of hours and the times of day and/or year they may work and the types of work they may perform.

Although not required, an employer may obtain an age certificate showing that an employee meets the age requirements established by the FLSA to help shield itself from liability.

Pay and Benefits

Payment of Wages

Employers must comply with federal, state and local laws when paying employees. The federal [FLSA](#) only generally requires that employees be paid by their regular payday and prohibits employers from changing pay frequencies to avoid paying overtime pay. The vast majority of the wage payment laws and regulations that employers must comply with are at the [state level](#) and they are more specific than the FLSA.

Wage Withholding

Employers are required to make deductions from employees' wages for federal, state and local [income taxes](#) and employment taxes (i.e., [Social Security and Medicare taxes](#) and [unemployment taxes](#)). In addition, employers must withhold these taxes on the value of the [fringe benefits](#) and [health insurance benefits](#) they provide to employees. In addition, an employer may be [required to withhold and remit payments](#) for child support, creditor garnishments, student loans, tax liens or other employee debts.

Payroll Tax Reports and Deposits

As part of their payroll obligations, employers that withhold federal income and employment taxes from employees' pay are required to timely [file reports](#) reflecting the total amount of taxable wages paid to employees and the income and employment taxes withheld from those wages. These reports must be on required forms and filed with the Internal Revenue Service, the Social Security Administration and state and local tax agencies. Employers are also required to make deposits of the amounts withheld according to certain schedules, depending on the amount of deposits and other factors. All these amounts must be periodically reconciled.

In addition, all employers must [report information about newly hired and rehired employees](#) to state new hire reporting agencies within a certain time period.

Benefits Plan Administration

Employers that provide certain health care benefit and retirement plans must comply with the [Employee Retirement Income Security Act \(ERISA\)](#). ERISA sets minimum standards for most [retirement plans](#) and [health plans](#) set up by private employers in order to protect the interests of the employees who participate in such plans.

For example, ERISA:

- Requires plans to provide participants with plan information;
- Sets minimum standards for participation, vesting, benefits accrual and funding;
- Sets out fiduciary responsibilities for managing and controlling plan assets; and
- Regulates and sets standards for reporting requirements.

Health Care Benefits

Employer-sponsored [health care benefits](#) are an important part of the overall compensation package used by an employer to attract and retain workers. Employers must comply with several federal laws when designing and administering such benefits.

The [Affordable Care Act \(ACA\)](#) imposes a number of requirements that apply to employer-sponsored group health plans. These requirements have a large influence on health benefit plan design and strategy, touching on issues ranging from required health benefits to bans on benefit limits. Certain employers also may be subject to penalties for failure to offer employees affordable coverage.

Health Information and Privacy

The [Health Insurance Portability and Accountability Act \(HIPAA\)](#) affects the administration of group health plans. The law is designed to:

- Better protect employees' health insurance when they change or leave a job (i.e., provide them with portability);
- Prohibit discrimination based on individual health factors; and
- Ensure the privacy and security of individuals' protected health information (PHI).

HIPAA does not require group health plans to provide any particular benefits, but it does require that any benefits provided be made available to similarly situated individuals. HIPAA also requires employers to provide employees and their dependents an opportunity to enroll in the employer's health plan during a special enrollment period following certain qualifying events, such as when an individual becomes a new dependent through marriage, birth or adoption.

Health Care Continuation

Employers of 20 or more employees that provide group health insurance coverage are required to comply with [Consolidated Omnibus Budget Reconciliation Act \(COBRA\)](#) requirements to provide continued health insurance coverage to employees and certain family members for a limited time after certain qualifying events, such as the loss of a job. COBRA contains strict rules for:

- How and when continuation coverage must be offered and provided;
- How employees and their families may elect continuation coverage; and
- The circumstances that justify terminating continuation coverage.

Social Security and Medicare

The Social Security Act provides workers and their families with income replacement upon retirement, the death of a spouse and permanent disability. Social Security is administered by the Social Security Administration and is split into two programs: (1) Social Security and (2) Medicare.

Benefits provided under [Social Security](#) include retirement benefits, disability benefits, death benefits and survivor benefits. [Medicare](#) is a federal health insurance program that covers individuals age 65 or over, disabled workers under age 65 and individuals with end-stage renal disease.

Attendance and Leave

Family and Medical Leave

The [Family and Medical Leave Act \(FMLA\)](#) entitles eligible employees of covered employers to unpaid, job-protected leave for the following reasons:

- The employee's inability to work due to a serious health condition;
- To care for an immediate family member with a serious health condition;
- The birth, adoption or foster care of the employee's child; and
- To address a military exigency arising from a family member's military duty or call to military duty.

[While an employee is out on FMLA leave](#), an employer must maintain the employee's health benefits and follow certain rules regarding other employee benefits and compensation. An employee also must be reinstated to their same position (or an equivalent position) when they return from FMLA leave.

Because the FMLA protects employees from discrimination or retaliation based on exercising their FMLA rights, an employer cannot use an employee's use of FMLA leave as a factor in deciding to take an adverse employment action against the employee.

Military Leave

All employers, regardless of size, are required to comply with the [Uniformed Services Employment and Reemployment Rights Act \(USERRA\)](#), which protects the job rights of individuals who voluntarily or involuntarily leave employment to undertake military service or certain types of service in the National Disaster Medical System.

USERRA prohibits an employer from discriminating against past and present members of and applicants to the uniformed services. USERRA also prohibits an employer, based on an individual's past, present or future military status, from denying:

- Initial employment;
- Reemployment;
- Retention in employment;
- Promotion; or
- Any benefit of employment.

In addition, employers may not retaliate against employees for exercising their military leave rights or for participating in USERRA's enforcement process.

Health and Safety

Occupational Safety and Health

The [Occupational Safety and Health Act \(OSH Act\)](#) imposes on all employers a general duty to provide a workplace free from recognized safety and health hazards that could cause death or serious physical harm. In particular, the OSH Act requires employers to:

- Provide employees with safety information and training;
- [Post required notices](#);
- Perform safety checks and make needed corrections;
- Maintain required records; and
- [Report workplace safety incidents](#) to the Occupational Safety and Health Administration (OSHA).

OSHA is empowered to conduct workplace inspections and require employers to fix safety problems.

As part of providing a safe working environment, a [workplace safety program](#) should be established and maintained. Such programs may include safety training, emergency preparation and accident resolution policies and procedures. Policies and practices regarding [safe on-the-job driving](#) also should be implemented and enforced.

Drug-Free Workplace

Employers that receive federal grants or contracts and private organizations that do business with the federal government are required by the [Drug-Free Workplace Act](#) to maintain a [drug-free workplace](#). Steps that covered employers are required to take include:

- Publishing and providing employees with a policy statement of the employer's drug-free program;
- Notifying employees of mandatory compliance with the policy;
- Establishing a substance awareness program, including counseling and rehabilitation programs;
- Notifying the federal contracting or granting agency if an employee has been convicted of a criminal drug violation in the workplace; and
- Imposing penalties on employees convicted of a reportable workplace drug conviction.

Organizational Exit

Mass Layoff Notifications

Most employers that employ 100 or more employees must comply with the [Worker Adjustment and Retraining Notification Act \(WARN Act\)](#). The WARN Act requires covered employers to give employees 60 days' advance notice before a plant closure or mass layoff. Employers that fail to give the required notice may be responsible for providing wages and benefits to those employees and may be subject to civil fines and penalties.

In addition to complying with the WARN Act, employers initiating a reduction in force or plant closing must perform due diligence to ensure that company policies (including those prohibiting discrimination and retaliation) and provisions of any collective bargaining agreements are carefully followed.

State Requirements

The following states have additional requirements for this topic under applicable state law:

Your Preferred States

Please [log in to see your preferred states](#) by using the link <https://www.xperthr.com/employment-law-manual/labor-and-employment-law-overview-federal/210/>

Alabama	Arkansas	Connecticut	Florida	Idaho
Illinois	Kansas	Maine	Michigan	Missouri
Montana	New Hampshire	New York	Ohio	Pennsylvania
Rhode Island	Tennessee	Vermont	West Virginia	
Alaska	California	Delaware	Georgia	
Indiana	Kentucky	Maryland	Minnesota	
Nebraska	New Jersey	North Carolina	Oklahoma	
South Carolina	Texas	Virginia	Wisconsin	
Arizona	Colorado	District of Columbia	Hawaii	
Iowa	Louisiana	Massachusetts	Mississippi	
Nevada	New Mexico	North Dakota	Oregon	
South Dakota	Utah	Washington	Wyoming	

California Prevailing Wage Rates

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NOT FOR BID

Journeymen Determinations

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: Driver (On/Off-Hauling To/From Construction Site)

Determination:

C-DT-830-261-10-2021-1

Issue Date:

February 22, 2021

Expiration date of determination:

March 31, 2021* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director - Research Unit at (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

Localities:

All localities within Imperial, Inyo, Los Angeles, Mono, Orange, Riverside, San Bernardino and San Diego Counties.

Wages and Employer Payments:

Classification	Basic Hourly Rate	Health and Welfare ^a	Pension	Vacation and Holiday ^b	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X) ^c	Sunday/ Holiday Overtime Hourly Rate (1 ½ X)
Driver: Dump Truck	\$17.00	\$2.05	\$0.085	\$0.33	\$0.00	\$0.00	8.0	\$19.465	\$27.965	\$27.965

Recognized holidays:

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

* There is no predetermined increase applicable to this determination

-
- ^a The contribution applies to all work up to \$355.00 per month.
^b \$0.65 after 2 years of service
 \$0.98 after 5 years of service
 \$1.31 after 9 years of service
^c Rate applies to work in excess of eight (8) hours daily and forty (40) hours weekly.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: DRIVER (ON/OFF-HAULING TO/FROM CONSTRUCTION SITE)

Determination:

C-MT-830-261-12-2021-1

Issue Date:

February 22, 2021

Expiration date of determination:

March 31, 2021* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

Localities:

All localities within Inyo, Mono and San Bernardino Counties.

Wages and Employer Payments:

Classification	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)	Sunday/ Holiday Overtime Hourly Rate (1 ½ X)
Driver: Mixer Truck	\$19.05	\$6.66 ^a	\$1.71	\$1.17 ^b	\$0.00	\$0.00	8.0	\$28.59	\$38.115 ^c	\$38.115

Recognized holidays:

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

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Determination: C-MT-830-261-12-2021-1

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* There is no predetermined increase applicable to this determination.

^a The contribution applies to all hours until \$1155.24 is paid for the month.

^b \$1.54 after 7 years of service. \$1.91 after 14 years of service.

^c Rate applies to work in excess of eight (8) hours daily and forty (40) hours weekly.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER#

Determination:

SC-23-63-2-2022-1D

Issue Date:

August 22, 2022

Expiration date of determination:

June 30, 2023** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

Wages and Employer Payments:

Classification ^a (Journey person)	Basic Hourly Rate	Health and Welfare	Pension ^b	Vacation and Holiday ^c	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate ^d (1½ x)	Saturday Overtime Hourly Rate ^e (1½ x)	Sunday/ Holiday Overtime Hourly Rate (2 x)
Group 1	\$54.68	\$12.35	\$13.15	\$3.85	\$1.05	\$0.39	8	\$85.47	\$112.810	\$112.810	\$140.150
Group 2	\$56.46	\$12.35	\$13.15	\$3.85	\$1.05	\$0.39	8	\$87.25	\$115.480	\$115.480	\$143.710
Group 3	\$58.46	\$12.35	\$13.15	\$3.85	\$1.05	\$0.39	8	\$89.25	\$118.480	\$118.480	\$147.710

Determination: SC-23-63-2-2022-1D; SC-23-63-2-2022-1D1; SC-23-63-2-2022-1D2

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GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER#
(MULTI-SHIFT)**

Determination:

SC-23-63-2-2022-1D2

Issue Date:

August 22, 2022

Expiration date of determination:

June 30, 2023**The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

Wages and Employer Payments:

Classification ^a (Journey person)	Basic Hourly Rate	Health and Welfare	Pension ^b	Vacation and Holiday ^c	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate ^d (1½ x)	Saturday Overtime Hourly Rate ^e (1½ x)	Sunday/ Holiday Overtime Hourly Rate (2 x)
Group 1	\$55.68	\$12.35	\$13.15	\$3.85	\$1.05	\$0.39	8	\$86.47	114.310	114.310	\$142.150
Group 2	\$57.46	\$12.35	\$13.15	\$3.85	\$1.05	\$0.39	8	\$88.25	116.980	116.980	\$145.710
Group 3	\$59.46	\$12.35	\$13.15	\$3.85	\$1.05	\$0.39	8	\$90.25	119.980	119.980	\$149.710

Recognized holidays:

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday

Determination: SC-23-63-2-2022-1D; SC-23-63-2-2022-1D1; SC-23-63-2-2022-1D2

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GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER[#]
(SPECIAL SHIFT)**

Determination:

SC-23-63-2-2022-1D1

Issue Date:

August 22, 2022

Expiration date of determination:

June 30, 2023** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

Wages and Employer Payments:

Classification ^a (Journey person)	Basic Hourly Rate	Health and Welfare	Pension ^b	Vacation and Holiday ^c	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate ^d (1½ x)	Saturday Overtime Hourly Rate ^e (1½ x)	Sunday/ Holiday Overtime Hourly Rate (2 x)
Group 1	\$55.68	\$12.35	\$13.15	\$3.85	\$1.05	\$0.39	8	\$86.47	\$114.310	\$114.310	\$142.150
Group 2	\$57.46	\$12.35	\$13.15	\$3.85	\$1.05	\$0.39	8	\$88.25	\$116.980	\$116.980	\$145.710
Group 3	\$59.46	\$12.35	\$13.15	\$3.85	\$1.05	\$0.39	8	\$90.25	\$119.980	\$119.980	\$149.710

provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:

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Classifications:

Group 1

Field Soils and Materials Tester
Field Asphaltic Concrete (Soils and Materials Tester)
Field Earthwork (Grading Excavation and Filling)
Roof Inspector
Water Proofer

Group 2

AWS-CWI Welding Inspector
Building/Construction Inspector
Licensed Grading Inspector
Reinforcing Steel
Reinforced Concrete
Pre-Tension Concrete

Post-Tension Concrete
Structural Steel and Welding Inspector
Glue-Lam and truss Joints
Truss-Type Joint Construction
Shear Wall and Floor System used as diaphragms
Concrete batch Plant
Spray-Applied Fireproofing
Structural masonry

Group 3

Nondestructive Testing (NDT)
Unmanned Aircraft Systems (UAS Drones) Operator (when used in conjunction with field soils and material testing – building/construction inspection)

Indicates an apprenticeable craft. The current apprentice wage rates are available on the [Prevailing Wage Apprentice Determinations Website](http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp) (<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>).

^a For classifications within each group, see Page 4.

^b Includes an amount for Annuity.

^c Includes an amount withheld for supplemental dues.

^d Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^e Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

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-23-203-2-2022-1

Issue Date:

August 22, 2022

Expiration date of determination:

June 30, 2023** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura Counties.

Wages and Employer Payments:

Classification (Journey person)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday ^a	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X) ^b	Saturday Overtime Hourly Rate (1 ½ X) ^b ^c	Sunday/ Holiday Overtime Hourly Rate (2 X)
Cement Mason, Curb and Gutter Machine Operator; Clary and Similar Type of Screed Operator (Cement only); Grinding Machine Operator (all types); Jackson Vibratory, Texas Screed and Similar Type Screed Operator; Scoring Machine Operator	\$42.00	\$8.43	\$10.48	\$7.31	\$0.64	\$0.24	8.0	\$69.10	\$90.10	\$90.10	\$111.10
Magnesite, magnesite-terrazzo and mastic composition, Epoxy, Urethanes and exotic coatings, Dex-O-Tex	\$42.12	\$8.43	\$10.48	\$7.31	\$0.64	\$0.24	8.0	\$69.22	\$90.28	\$90.28	\$111.34

Classification (Journey person)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday ^a	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X) ^b	Saturday Overtime Hourly Rate (1 ½ X) ^b _c	Sunday/ Holiday Overtime Hourly Rate (2 X)
Floating and Troweling Machine Operator	\$42.25	\$8.43	\$10.48	\$7.31	\$0.64	\$0.24	8.0	\$69.35	\$90.475	\$90.475	\$111.60

Recognized holidays:

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Indicates an apprenticeable craft. The current apprentice wage rates are available on the [Prevailing Wage Apprentice Determinations Website](http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp) (<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>).

^a Includes an amount for supplemental dues.

^b 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.

^c 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.

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-23-102-2-2022-1

Issue Date:

August 22, 2022

Expiration date of determination:

June 30, 2023** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

Wages and Employer Payments:

Classification ^a (Journey person)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday ^b	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X) ^c	Saturday Overtime Hourly Rate (1 ½ X) ^{cd}	Sunday/ Holiday Overtime Hourly Rate (2 X)
Group 1	\$39.23	\$8.75	\$10.82	\$5.02	\$0.70	\$0.67	8.0	\$65.19	\$84.805	\$84.805	\$104.420
Group 2	\$39.78	\$8.75	\$10.82	\$5.02	\$0.70	\$0.67	8.0	\$65.74	\$85.630	\$85.630	\$105.520
Group 3	\$40.33	\$8.75	\$10.82	\$5.02	\$0.70	\$0.67	8.0	\$66.29	\$86.455	\$86.455	\$106.620
Group 4	\$41.88	\$8.75	\$10.82	\$5.02	\$0.70	\$0.67	8.0	\$67.84	\$88.780	\$88.780	\$109.720
Group 5	\$42.23	\$8.75	\$10.82	\$5.02	\$0.70	\$0.67	8.0	\$68.19	\$89.305	\$89.305	\$110.420

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
Tarmen and Mortar Man
Tool Crib or Tool House Laborer
Traffic Control by any method
Water Well Driller Helper
Window Cleaner
Wire Mesh Pulling - All Concrete Pouring Operations

Group 2

Asphalt Shoveler
Cement Dumper (on 1 yard or larger mixer and handling bulk cement)
Cesspool Digger and Installer
Chucktender
Chute Man, pouring concrete, the handling of the chute from readymix trucks, such as walls, slabs, decks,

floors, foundations, footings, curbs, gutters and sidewalks
Concrete Curer-Impervious Membrane and Form Oiler
Cutting Torch Operator (Demolition)
Fine Grader, Highways and Street Paving, Airport, Runways, and similar type heavy construction
Gas, Oil and/or Water Pipeline Wrapper-Pot Tender and Form Man
Guinea Chaser
Headerboard Man-Asphalt
Installation of all Asphalt Overlay Fabric and Materials used for Reinforcing Asphalt
Laborer, Packing Rod Steel and Pans
Membrane Vapor Barrier Installer
Power Broom Sweepers (small)
Riprap, Stonepaver, placing stone or wet sacked concrete
Roto Scraper and Tiller
Sandblaster (Pot Tender)
Septic Tank Digger and Installer (leadman)
Tank Scaler and Cleaner
Tree Climber, Faller, Chain Saw Operator, Pittsburgh Chipper and similar type Brush Shredders
Underground Laborer, including Caisson Bellow

Group 3

Asphalt Installation of all fabrics
Buggymobile Man
Compactor (all types including Tampers, Barko, Wacker)
Concrete Cutting Torch
Concrete Pile Cutter
Driller, Jackhammer, 2 1/2 ft. drill steel or longer
Dri Pak-it Machine
Gas, Oil and/or Water Pipeline Wrapper - 6-inch pipe and over by any method, inside and out
Impact Wrench, Multi-Plate
Kettlemen, Potmen and Men applying asphalt, lay-kold, creosote, lime caustic and similar type materials
Laborer, Fence Erector
Material Hoseman (Walls, Slabs, Floors and Decks)
Operators of Pneumatic, Gas, Electric Tools, Vibrating Machines, Pavement Breakers, Air Blasting, Come-

Alongs, and similar mechanical tools not separately classified herein; operation of remote controlled robotic tools in connection with Laborers work
Pipelayer's backup man, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services
Power Post Hole Digger
Rock Slinger
Rotary Scarifier or Multiple Head Concrete Chipping Scarifier
Steel Headerboard Man and Guideline Setter
Trenching Machine, Hand Propelled

Group 4

Any Worker Exposed to Raw Sewage
Asphalt Raker, Luteman, Ironer, Asphalt Dumpman, and Asphalt Spreader Boxes (all types)
Concrete Core Cutter (walls, floors or ceilings), Grinder or Sander
Concrete Saw Man, Cutting Walls or Flat Work, Scoring old or new concrete
Cribber, Shorer, Lagging, Sheeting and Trench Bracing, Hand-Guided Lagging Hammer
Head Rock Slinger
High Scaler (including drilling of same)
Laborer, Asphalt-Rubber Distributor Bootman
Laser Beam in connection with Laborer's work
Oversize Concrete Vibrator Operator, 70 pounds and over
Pipelayer
Prefabricated Manhole Installer
Sandblaster (Nozzleman), Water Blasting, Porta Shot-Blast
Subsurface Imaging Laborer
Traffic Lane Closure, certified

Group 5

Blasters Powderman
Driller
Toxic Waste Removal
Welding, certified or otherwise in connection with Laborers' work

Recognized holidays:

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Indicates an apprenticeable craft. The current apprentice wage rates are available on the [Prevailing Wage Apprentice Determinations Website](http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp) (<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>).

^a For classification within each group, see next page.

^b Includes an amount per hour worked for supplemental dues.

^c Any hours worked over 12 hours in a single workday are double (2) time.

^d Saturdays in the same work week may be worked at straight-time if job is shut down during work week due to inclement weather or similar Act of God, or a situation beyond the employer's control.

GENERAL PREVAILING WAGE DETERMINATION MADE BY
THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: OPERATING ENGINEER#

Determination:
SC-23-63-2-2022-2

Issue Date:
August 22, 2022

Expiration date of determination:
June 30, 2023** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

Wages and total hourly rates (including employer payments):

Classification ^a (Journeyman)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate ^b (1½ x)	Saturday Overtime Hourly Rate ^c (1½ x)	Sunday/Holiday Overtime Hourly Rate (2 x)
Group 1	\$53.90	8	\$84.69	\$111.640	\$111.640	\$138.590
Group 2	\$54.68	8	\$85.47	\$112.810	\$112.810	\$140.150
Group 3	\$54.97	8	\$85.76	\$113.245	\$113.245	\$140.730
Group 4	\$56.46	8	\$87.25	\$115.480	\$115.480	\$143.710
Group 6	\$56.68	8	\$87.47	\$115.810	\$115.810	\$144.150
Group 8	\$56.79	8	\$87.58	\$115.975	\$115.975	\$144.370
Group 10	\$56.91	8	\$87.70	\$116.155	\$116.155	\$144.610
Group 12	\$57.08	8	\$87.87	\$116.410	\$116.410	\$144.950
Group 13	\$57.18	8	\$87.97	\$116.560	\$116.560	\$145.150
Group 14	\$57.21	8	\$88.00	\$116.605	\$116.605	\$145.210
Group 15	\$57.29	8	\$88.08	\$116.725	\$116.725	\$145.370
Group 16	\$57.41	8	\$88.20	\$116.905	\$116.905	\$145.610
Group 17	\$57.58	8	\$88.37	\$117.160	\$117.160	\$145.950
Group 18	\$57.68	8	\$88.47	\$117.310	\$117.310	\$146.150
Group 19	\$57.79	8	\$88.58	\$117.475	\$117.475	\$146.370
Group 20	\$57.91	8	\$88.70	\$117.655	\$117.655	\$146.610
Group 21	\$58.08	8	\$88.87	\$117.910	\$117.910	\$146.950
Group 22	\$58.18	8	\$88.97	\$118.060	\$118.060	\$147.150
Group 23	\$58.29	8	\$89.08	\$118.225	\$118.225	\$147.370
Group 24	\$58.41	8	\$89.20	\$118.405	\$118.405	\$147.610
Group 25	\$58.58	8	\$89.37	\$118.660	\$118.660	\$147.950

Employer Payments:

Type of Fund	Amount per Hour
Health and Welfare	\$12.35
Pension ^d	\$13.15
Vacation and Holiday ^e	\$3.85
Training	\$1.05
Other	\$0.39

Recognized holidays:

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY
THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: OPERATING ENGINEER (SPECIAL SHIFT)*

Determination:
SC-23-63-2-2022-2

Issue Date:
August 22, 2022

Expiration date of determination:

June 30, 2023** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

Wages and total hourly rates (including employer payments):

Classification ^a (Journeyman)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate ^b (1½ x)	Saturday Overtime Hourly Rate ^c (1½ x)	Sunday/Holiday Overtime Hourly Rate (2 x)
Group 1	\$54.90	8	\$85.69	\$113.140	\$113.140	\$140.590
Group 2	\$55.68	8	\$86.47	\$114.310	\$114.310	\$142.150
Group 3	\$55.97	8	\$86.76	\$114.745	\$114.745	\$142.730
Group 4	\$57.46	8	\$88.25	\$116.980	\$116.980	\$145.710
Group 6	\$57.68	8	\$88.47	\$117.310	\$117.310	\$146.150
Group 8	\$57.79	8	\$88.58	\$117.475	\$117.475	\$146.370
Group 10	\$57.91	8	\$88.70	\$117.655	\$117.655	\$146.610
Group 12	\$58.08	8	\$88.87	\$117.910	\$117.910	\$146.950
Group 13	\$58.18	8	\$88.97	\$118.060	\$118.060	\$147.150
Group 14	\$58.21	8	\$89.00	\$118.105	\$118.105	\$147.210
Group 15	\$58.29	8	\$89.08	\$118.225	\$118.225	\$147.370
Group 16	\$58.41	8	\$89.20	\$118.405	\$118.405	\$147.610
Group 17	\$58.58	8	\$89.37	\$118.660	\$118.660	\$147.950
Group 18	\$58.68	8	\$89.47	\$118.810	\$118.810	\$148.150
Group 19	\$58.79	8	\$89.58	\$118.975	\$118.975	\$148.370
Group 20	\$58.91	8	\$89.70	\$119.155	\$119.155	\$148.610
Group 21	\$59.08	8	\$89.87	\$119.410	\$119.410	\$148.950
Group 22	\$59.18	8	\$89.97	\$119.560	\$119.560	\$149.150
Group 23	\$59.29	8	\$90.08	\$119.725	\$119.725	\$149.370
Group 24	\$59.41	8	\$90.20	\$119.905	\$119.905	\$149.610
Group 25	\$59.58	8	\$90.37	\$120.160	\$120.160	\$149.950

Employer Payments:

Type of Fund	Amount per Hour
Health and Welfare	\$12.35
Pension ^d	\$13.15
Vacation and Holiday ^e	\$3.85
Training	\$1.05
Other	\$0.39

Recognized holidays:

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY
THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: OPERATING ENGINEER (MULTI-SHIFT)^a

Determination:
SC-23-63-2-2022-2

Issue Date:
August 22, 2022

Expiration date of determination:
June 30, 2023** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

Wages and total hourly rates (including employer payments):

Classification ^a (Journeyman)	Basic Hourly Rate	Hours ^f	Total Hourly Rate	Daily Overtime Hourly Rate ^b (1½ x)	Saturday Overtime Hourly Rate ^c (1½ x)	Sunday/Holiday Overtime Hourly Rate (2 x)
Group 1	\$54.90	8	\$85.69	\$113.140	\$113.140	\$140.590
Group 2	\$55.68	8	\$86.47	\$114.310	\$114.310	\$142.150
Group 3	\$55.97	8	\$86.76	\$114.745	\$114.745	\$142.730
Group 4	\$57.46	8	\$88.25	\$116.980	\$116.980	\$145.710
Group 5	\$57.46	8	\$88.25	\$116.980	\$116.980	\$145.710
Group 6	\$57.68	8	\$88.47	\$117.310	\$117.310	\$146.150
Group 7	\$57.68	8	\$88.47	\$117.310	\$117.310	\$146.150
Group 8	\$57.79	8	\$88.58	\$117.475	\$117.475	\$146.370
Group 9	\$57.79	8	\$88.58	\$117.475	\$117.475	\$146.370
Group 10	\$57.91	8	\$88.70	\$117.655	\$117.655	\$146.610
Group 11	\$57.91	8	\$88.70	\$117.655	\$117.655	\$146.610
Group 12	\$58.08	8	\$88.87	\$117.910	\$117.910	\$146.950
Group 13	\$58.18	8	\$88.97	\$118.060	\$118.060	\$147.150
Group 14	\$58.21	8	\$89.00	\$118.105	\$118.105	\$147.210
Group 15	\$58.29	8	\$89.08	\$118.225	\$118.225	\$147.370
Group 16	\$58.41	8	\$89.20	\$118.405	\$118.405	\$147.610
Group 17	\$58.58	8	\$89.37	\$118.660	\$118.660	\$147.950
Group 18	\$58.68	8	\$89.47	\$118.810	\$118.810	\$148.150
Group 19	\$58.79	8	\$89.58	\$118.975	\$118.975	\$148.370
Group 20	\$58.91	8	\$89.70	\$119.155	\$119.155	\$148.610

Group 21	\$59.08	8	\$89.87	\$119.410	\$119.410	\$148.950
Group 22	\$59.18	8	\$89.97	\$119.560	\$119.560	\$149.150
Group 23	\$59.29	8	\$90.08	\$119.725	\$119.725	\$149.370
Group 24	\$59.41	8	\$90.20	\$119.905	\$119.905	\$149.610
Group 25	\$59.58	8	\$90.37	\$120.160	\$120.160	\$149.950

Employer Payments:

Type of Fund	Amount per Hour
Health and Welfare	\$12.35
Pension ^d	\$13.15
Vacation and Holiday ^e	\$3.85
Training	\$1.05
Other	\$0.39

Recognized holidays:

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Classifications:

Group 1

Bargeman
Brakeman
Compressor Operator
Ditchwitch, with seat or similar type equipment
Elevator Operator - Inside
Engineer Oiler
Forklift Operator (includes loed, lull or similar types
– under 5 tons)
Generator Operator
Generator, Pump or Compressor Plant Operator
Heavy Duty Repairman Helper
Inertial Profiler Operator
Pump Operator
Signalman
Switchman

Group 2

Asphalt-Rubber Plant Operator (Nurse Tank
Operator)
Concrete Mixer Operator – Skip Type
Conveyor Operator
Fireman
Forklift Operator (includes loed, lull or similar types
– over 5 tons)
Hydrostatic Pump Operator
Oiler Crusher (Asphalt or Concrete Plant)
Petromat Laydown Machine
PJU Side Dump Jack
Rotary Drill Helper (Oilfield)
Screening and Conveyor Machine Operator (or
similar types)
Skiploader (Wheel type up to ¾ yd. without
attachment)
Tar Pot Fireman
Temporary Heating Plant Operator
Trenching Machine Oiler

Group 3

Asphalt Rubber Blend Operator
Bobcat or similar type (Skid Steer, with all
attachments)
Equipment Greaser (rack)
Ford Ferguson (with dragtype attachments)
Helicopter Radioman (ground)
Stationary Pipe Wrapping and Cleaning Machine
Operator

Group 4

Asphalt Plant Fireman
Backhoe Operator (mini-max or similar type)
Boring Machine Operator
Boring System Electronic Tracking Locator
Boxman or Mixerman (asphalt or concrete)
Chip Spreading Machine Operator
Concrete Cleaning Decontamination Machine
Operator
Concrete Pump Operator (small portable)
Drilling Machine Operator, Small Auger types
(Texoma Super Economatic, or similar types –
Hughes 100 or 200, or similar types – drilling
depth of 30 maximum)
Equipment Greaser (grease truck)
Excavator Track/Rubber-Tired-with all attachments
(Operating weight under 21,000 lbs)
Guard Rail Post Driver Operator
Highline Cableway Signalman
Hydra-Hammer-Aero Stomper
Hydraulic Casing Oscillator Operator – drilling depth
of 30' maximum
Micro Tunneling Operator (above ground tunnel)
Power Concrete Curing Machine Operator
Power Concrete Saw Operator
Power – Driver Jumbo Form Setter Operator
Power Sweeper Operator
Rock Wheel Saw/Trencher
Roller Operator (compacting)
Screed Operator (asphalt or concrete)
Trenching Machine Operator (up to 6 ft.)
Vacuum or Muck Truck

Group 5 (for multi-shift rate, see Pages 5 and 6)
Equipment Greaser (Grease Truck/Multi-Shift)

Group 6

Articulating Material Hauler
Asphalt Plant Engineer
Batch Plant Operator
Bit Sharpener
Concrete Joint Machine Operator (canal and similar
type)
Concrete Placer Operator
Concrete Planer Operator
Dandy Digger
Deck Engine Operator
Deck Engineer
Derrickman (oilfield type)

Drilling Machine Operator, Bucket or Auger types
(Calweld 100 bucket or similar types – Watson
1000 auger or similar types – Texoma 330, 500 or
600 auger or similar types – drilling depth of 45'
maximum)
Drilling Machine Operator (including water wells)
Forced Feed Loader
Hydraulic Casing Oscillator Operator – drilling depth
of 45' maximum
Hydro Seeder Machine Operator (straw, pulp or seed)
Jackson Track Maintainer, or similar type
Kalamazoo Switch Tamper, or similar type
Machine Tool Operator
Maginnis Internal Full Slab Vibrator
Mechanical Berm, Curb or Gutter (concrete or
asphalt)
Mechanical Finisher Operator (concrete, Clary-
Johnson-Bidwell or similar)
Micro Tunnel System Operator (below ground)
Pavement Breaker Operator
Railcar Mover
Road Oil Mixing Machine Operator
Roller Operator (asphalt or finish)
Rubber-Tired Earthmoving Equipment (single
engine, up to and including 25 yds. struck)
Self-Propelled Tar Pipelining Machine Operator
Skiploader Operator (crawler and wheel type, over
¾ yds. and up to and including 1½ yds.)
Slip Form Pump Operator (power driven hydraulic
lifting device for concrete forms)
Tractor Operator – Bulldozer, Tamper-Scraper
(single engine, up to 100 H.P. flywheel and similar
types, up to and including D-5 and similar types)
Tugger Hoist Operator (1 drum)
Ultra High Pressure Waterjet Cutting Tool System
Operator
Vacuum Blasting Machine Operator
Volumetric Mixer Operator
Welder - General

Group 7 (for multi-shift rate, see Pages 5 and 6)
Welder - General (Multi-Shift)

Group 8

Asphalt or Concrete Spreading Operator (tamping or
finishing)
Asphalt Paving Machine Operator (barber greene or
similar type, one (1) Screedman)
Asphalt-Rubber Distributor Operator
Backhoe Operator (up to and including ¾ yds.)
small ford, case or similar types

Backhoe Operator (over ¾ yd. and up to 5 cu. yds.
M.R.C.)
Barrier Rail Mover (BTM Series 200 or similar types)
Cast in Place Pipe Laying Machine Operator
Cold Foamed Asphalt Recycler
Combination Mixer and Compressor Operator
(gunite work)
Compactor Operator – Self Propelled
Concrete Mixer Operator – Paving
Crushing Plant Operator
Drill Doctor
Drilling Machine Operator, Bucket or Auger types
(Calweld 150 bucket or similar types – Watson
1500, 2000, 2500 auger or similar types –
Texoma 700, 800 auger or similar types – drilling
depth of 60' maximum)
Elevating Grader Operator
Excavator Track/Rubber-Tired with all attachments
(Operating Weight 21,000 lbs – 100,000 lbs)
Global Positioning System/GPS (or Technician)
Grade Checker
Gradall Operator
Grouting Machine Operator
Heavy Duty Repairman/Pump Installer
Heavy Equipment Robotics Operator
Hydraulic Casing Oscillator Operator – drilling depth
of 60' maximum
Hydraulic Operated Grout Plant (excludes hand
loading)
Kalamazoo Ballast Regulator or similar type
Klemm Drill Operator or similar types
Kolman Belt Loader and similar type
Le Toumeau Blob Compactor or similar type
Lo Drill
Loader Operator (Athey, Euclid, Sierra and similar
types)
Master Environmental Maintenance Mechanic
Mobark Chipper or similar types
Ozzie Padder or similar types
P.C. 490 Slot Saw
Pneumatic Concrete Placing Machine Operator
(Hackley-Presswell or similar type)
Prentice 721E Hydro-Ax
Pumpcrete Gun Operator
Rock Drill or Similar Types (see Miscellaneous
Provision #4 for additional information regarding
this classification)
Rotary Drill Operator (excluding caison type)
Rubber-Tired Earth Moving Equipment Operator
(single engine, caterpillar, euclid, athey wagon,

and similar types with any and all attachments over 25 yds. and up to and including 50 cu yds. struck)

Rubber-Tired Earth Moving Equipment Operator (multiple engine – up to and including 25 yds. struck)

Rubber-Tired Scraper Operator (self-loading paddle wheel type – John Deere, 1040 and similar single unit)

Self-Propelled Curb and Gutter Machine Operator Shuttle Buggy

Skiploader Operator (crawler and wheel type over 1 ½ yds. up to and including 6 ½ yds.)

Soil Remediation Plant Operator (CMI, Envirotech or Similar)

Soil Stabilizer and Reclaimer (WR-2400)

Somero SXP Laser Screed

Speed Swing Operator

Surface Heaters and Planer Operator

Tractor Compressor Drill Combination Operator

Tractor Operator (any type larger than D-5 – 100 flywheel H.P. and over, or similar – bulldozer, tamper, scraper and push tractor, single engine)

Tractor Operator (boom attachments)

Traveling Pipe Wrapping, Cleaning and Bending Machine Operator)

Trenching Machine Operator (over 6 ft. depth capacity, manufacturer's rating)

Trenching Machine with Road Miner Attachment (over 6ft. depth capacity, manufacturer's rating – Oiler or Journeyman Trainee required)

Ultra High Pressure Waterjet Cutting Tool System Mechanic

Water Pull (compaction)

Group 9 (for multi-shift rate, see Pages 5 and 6)
Heavy Duty Repairman (Multi-Shift)

Group 10

Backhoe Operator (over 5 cu. yds. M.R.C.)

Drilling Machine Operator, Bucket or Auger types (Calweld 200 B bucket or similar types – Watson 3000 or 5000 auger or similar types – Texoma 900 auger or similar types – drilling depth of 105' maximum)

Dual Drum Mixer

Dynamic Compactor LDC350 or similar types

Heavy Duty Repairman-Welder combination

Hydraulic Casing Oscillator Operator – drilling depth of 105' maximum

Monorail Locomotive Operator (diesel, gas or electric)

Motor Patrol – Blade Operator (single engine)

Multiple Engine Tractor Operator (euclid and similar type – except quad 9 cat.)

Pneumatic Pipe Ramming Tool and similar types

Pre-stressed Wrapping Machine Operator (2 Operators required)

Rubber – Tired Earth Moving Equipment Operator (single engine, over 50 yds. struck)

Rubber – Tired Earth Moving Equipment Operator (multiple engine, euclid caterpillar and similar – over 25 yds. and up to 50 yds. struck)

Tower Crane Repairman

Tractor Loader Operator (crawler and wheel-type over 6 ½ yds.)

Unmanned Aircraft Systems (UAS Drones) Operator (when used in conjunction with hoisting and placing materials)

Welder – Certified

Woods Mixer Operator (and similar pugmill equipment)

Group 11 (for multi-shift rate, see Pages 5 and 6)
Heavy Duty Repairman – Welder Combination (Multi-Shift)
Welder – Certified (Multi-Shift)

Group 12

Auto Grader Operator

Automatic Slip Form Operator

Backhoe Operator (over 7 cu. yds. M.R.C.)

Drilling Machine Operator, Bucket or Auger types (Calweld, auger 200 CA or similar types – Watson, auger 6000 or similar types – hughes super duty, auger 200 or similar types – drilling depth of 175' maximum)

Excavator Track/Rubber Tired- with all attachments (Operating Weight 100,000 lbs. – 200,000 lbs.)

Hoe Ram or similar with compressor

Hydraulic Casing Oscillator Operator – drilling depth of 175' maximum

Mass Excavator Operator – less than 750 cu. yds.

Mechanical Finishing Machine Operator

Mobile Form Traveler Operator

Motor Patrol Operator (multi-engine)

Pipe Mobile Machine Operator

Rubber-Tired Earth Moving Equipment Operator (multiple engine, euclid, caterpillar and similar type, over 50 cu. yds. struck)

Rubber-Tired Self-Loading Scraper Operator
(paddle-wheel-auger type self-loading – two (2)
or more units)

Group 13

Rubber-Tired Earth Moving Equipment Operator,
Operating Equipment with the Push-Pull System
(single engine, up to and including 25 yds. struck)

Group 14

Canal Liner Operator

Canal Trimmer Operator

Drilling Machine Operator, Bucket or Auger types
(Calweld, auger 200 CA or similar types –
watson, auger 6000 or similar types – hughes
super duty, auger 200 or similar types – drilling
depth of 300' maximum)

Remote Controlled Earth Moving Operator (\$1.00
per hour additional to base rate)

Wheel Excavator Operator (over 750 cu. yds. per
hour)

Group 15

Rubber-Tired Earth Moving Equipment Operator,
Operating Equipment with the Push-Pull System
(single engine, caterpillar, euclid, atthey wagon,
and similar types with any and all attachments
over 25 and up to and including 50 cu. yds.
struck)

Rubber-Tired Earth Moving Equipment Operator,
Operating Equipment with the Push-Pull System
(multiple engine - up to and including 25 yds.
struck)

Group 16

Excavator Track/Rubber Tired – with all attachments
(Operating Weight exceeding 200,000 lbs.)

Rubber-Tired Earth Moving Equipment Operator,
Operating Equipment with the Push-Pull System
(single engine, over 50 yds. struck)

Rubber-Tired Earth Moving Equipment Operator,
Operating Equipment with the Push-Pull System
(multiple engine, euclid, caterpillar, and similar,
over 25 yds. and up to 50 yds. struck)

Group 17

Rubber-Tired Earth Moving Equipment Operator,
Operating Equipment with the Push-Pull System
(multiple engine, euclid, caterpillar, and similar
type, over 50 cu. yds. struck)

Tandem Tractor Operator (operating crawler type
tractors in tandem – Quad 9 and similar type)

Group 18

Rubber-Tired Earth Moving Equipment Operator,
Operating in Tandem (scrapers, belly dumps, and
similar types in any combination, excluding
compaction units - single engine, up to and
including 25 yds. struck)

Group 19

Rotex Concrete Belt Operator

Rubber-Tired Earth Moving Equipment Operator,
Operating in Tandem (scrapers, belly dumps, and
similar types in any combination, excluding
compaction units - single engine, caterpillar,
euclid, atthey wagon, and similar types with any
and all attachments over 25 yds. and up to and
including 50 cu. yds. struck)

Rubber-Tired Earth Moving Equipment Operator,
Operating in Tandem (scrapers, belly dumps, and
similar types in any combination, excluding
compaction units - multiple engines, up to and
including 25 yds. struck)

Group 20

Rubber-Tired Earth Moving Equipment Operator,
Operating in Tandem (scrapers, belly dumps, and
similar types in any combination, excluding
compaction units - single engine, over 50 yds.
struck)

Rubber-Tired Earth Moving Equipment Operator,
Operating in Tandem (scrapers, belly dumps, and
similar types in any combination, excluding
compaction units - multiple engine, euclid,
caterpillar and similar, over 25 yds. and up to 50
yds. struck)

Group 21

Rubber-Tired Earth Moving Equipment Operator,
Operating in Tandem (scrapers, belly dumps, and
similar types in any combination, excluding
compaction units - multiple engine, euclid,
caterpillar and similar type, over 50 cu. yds.
struck)

Group 22

Rubber-Tired Earth Moving Equipment Operator,
Operating Equipment with the Tandem Push-Pull

System (single engine, up to and including 25 yds. struck)

Group 23

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (single engine, caterpillar, euclid, atthey wagon, and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck)
Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (multiple engine, up to and including 25 yds. struck)

Group 24

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (single engine, over 50 yds. Struck)
Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (multiple engine, euclid, caterpillar and similar, over 25 yds. and up to 50 yds. struck)

Group 25

Concrete Pump Operator-Truck Mounted
Pedestal Concrete Pump Operator
Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (multiple engine, euclid, caterpillar and similar over 50 cu. yds struck)

MISCELLANEOUS PROVISIONS:

1. Operators on hoists with three drums shall receive fifty cents (50¢) per hour additional pay to the regular rate of pay. The additional pay shall be added to the regular rate and become the base rate for the entire shift.
2. All heavy duty repairman and heavy duty combination shall receive one dollar (\$1.00) per hour tool allowance in addition to their regular rate of pay and this shall become their base rate of pay.
3. Employees required to suit up and work in a hazardous material environment, shall receive Two Dollars (\$2.00) per hour in addition to their regular rate of pay, and that rate shall become the basic hourly rate of pay.
4. A review of rock drilling is currently pending. The minimum acceptable rate of pay for this classification or type of work on public works projects is Laborer and Related Classifications/Group 5 (Driller) as published in the Director's General Prevailing Wage Determinations. However, the published rate for the craft/classification of Operating Engineer/Group 8 (Rock Drill or Similar Types) may be used by contractors to perform rock drilling on public works projects.

[#] Indicates an apprenticeable craft. The current apprentice wage rates are available on the [Prevailing Wage Apprentice Determinations Website](http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp) (<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>).

^a For classifications within each group, see Pages 7 through 11.

^b Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^c Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

^d Includes an amount for Annuity.

^e Includes an amount withheld for supplemental dues.

^f The Third Shift shall work 6.5 hours, exclusive of meal period, for which 8 hours straight-time shall be paid at the non-shift rate, Monday through Friday.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: Parking and Highway Improvement (Striping, Slurry and Seal Coat Operations-Laborer)#

Determination:

SC-23-102-6-2022-2

Issue Date:

August 22, 2022

Expiration date of determination:

June 30, 2023** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:

All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara and Ventura Counties.

Wages and Employer Payments:

Classification ^a (Journey person)	Basic Hourly Rate	Health and Welfare	Pension	Vacation/ Holiday ^b	Training	Other	Hours ^c	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)	6 th & 7 th Day Overtime Hourly Rate ^d (1½ x)	Holiday Overtime Hourly Rate (2 X)
Group 1	\$41.90	\$8.75	\$7.77	\$5.26	\$1.37	\$0.50	8.0	\$65.55	\$86.500	\$86.500	\$107.45
Group 2	\$43.20	\$8.75	\$7.77	\$5.26	\$1.37	\$0.50	8.0	\$66.85	\$88.450	\$88.450	\$110.05
Group 3	\$45.21	\$8.75	\$7.77	\$5.26	\$1.37	\$0.50	8.0	\$68.86	\$91.465	\$91.465	\$114.07
Group 4	\$46.95	\$8.75	\$7.77	\$5.26	\$1.37	\$0.50	8.0	\$70.60	\$94.075	\$94.075	\$117.55

Recognized holidays:

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

CLASSIFICATION GROUPS:

Group 1

Protective coating, Pavement sealing (repairs and filling of cracks by any method to parking lots, game courts and playgrounds, and tracks, whether indoor or outdoor)
Truck Mounted Attenuator
Automatous Truck Mounted Attenuator
Installation of carstops
Traffic Control Person & Serviceman; including work of installing and protecting utility covers, traffic delineating devices, posting of no parking and notifications for public convenience
Asphalt Repair
Equipment Repair Technician
Truncated Dome Assitant
Decorative Asphalt Surfacing Applicator Assistant

Group 2

Traffic Surface Abrasive Blaster
Pot Tender
Traffic Control Person/Certified Traffic Control Person
Repairing and filling of cracks and surface cleaning on streets, highways, and airports by any means, and other work not directly connected with the application of slurry seal
Slurry Seal Squeegeeman (finisher)
Bob Cat/Skid Steer
Seal Roller
Forklift

Group 3

Traffic Delineating Device Applicator
Traffic Protective System Installer
Pavement Marking Applicator

Slurry Seal Applicator Operator (Line Driver- including self-contained distribution units, aggregate spreader truck)
Shuttleman (loader/slurry machine operations) operation of all related machinery and equipment; handling of related materials
Truncated Dome Technician
Decorative Asphalt Surfacing Applicator

Group 4

Traffic Striping Applicator
Slurry Seal Mixer Operator
Power Broom Sweeper (operation of all related trucks, machinery and equipment; Handling of related materials)

Indicates an apprenticeable craft. The current apprentice wage rates are available on the [Prevailing Wage Apprentice Determinations Website](http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp) (<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>).

^a For classifications within each group, see Page 2.

^b Includes an amount per hour worked for Supplemental Dues.

^c Straight-time hours: 8 consecutive hours per day. 40 hours over 5 consecutive days, Monday through Sunday shall constitute a week's work at straight time.

^d The sixth consecutive day in the same work week may be worked at straight-time if job is shut down during work week due to inclement weather.

GENERAL PREVAILING WAGE DETERMINATION MADE BY
THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #TEAMSTER (APPLIES ONLY TO WORK ON THE CONSTRUCTION SITE)

Determination:
SC-23-261-2-2022-1

Issue Date:
August 22, 2022

Expiration date of determination:
June 30, 2023** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

Wages and total hourly rates (including employer payments):

Classification ^a (Journey person)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate ^b (1½ x)	Saturday Overtime Hourly Rate ^b (1½ x)	Sunday/Holiday Overtime Hourly Rate (2 x)
Group I	\$36.19	8	\$68.73	\$86.825	\$86.825	\$104.92
Group II	\$36.34	8	\$68.88	\$87.05	\$87.05	\$105.22
Group III	\$36.47	8	\$69.01	\$87.245	\$87.245	\$105.48
Group IV	\$36.66	8	\$69.20	\$87.53	\$87.53	\$105.86
Group V	\$36.69	8	\$69.23	\$87.575	\$87.575	\$105.92
Group VI	\$36.72	8	\$69.26	\$87.62	\$87.62	\$105.98
Group VII	\$36.97	8	\$69.51	\$87.995	\$87.995	\$106.48
Group VIII	\$37.22	8	\$69.76	\$88.37	\$88.37	\$106.98
Group IX	\$37.42	8	\$69.96	\$88.67	\$88.67	\$107.38
Group X	\$37.72	8	\$70.26	\$89.12	\$89.12	\$107.98
Group XI	\$38.22	8	\$70.76	\$89.87	\$89.87	\$108.98

Employer Payments:

Type of Fund	Amount per Hour
Health and Welfare	\$20.12
Pension	\$7.00
Vacation and Holiday ^c	\$3.15
Training	\$1.82
Other	\$0.45

Wages and total hourly rates (including employer payments):

Classification ^d (Subjourneyman)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate ^b (1½ x)	Saturday Overtime Hourly Rate ^b (1½x)	Sunday/Holiday Overtime Hourly Rate (2 x)
0-2000 hours	\$22.40	8	\$53.79	\$64.99	\$64.99	\$76.19
2001-4000 hours	\$24.40	8	\$56.04	\$68.24	\$68.24	\$80.44
4001-6000 hours	\$26.40	8	\$58.29	\$71.49	\$71.49	\$84.69

Over 6000 hours and thereafter at journeyman rates.

Employer Payments:

Type of Fund	Amount per Hour
Health and Welfare	\$20.12
Pension	\$7.00
Vacation and Holiday ^c	\$2.00 (\$2.25 for 2001-4000 hours; \$2.50 for 4001-6000 hours)
Training	\$1.82
Other	\$0.45

Recognized holidays:

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY
THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: *TEAMSTER (SPECIAL SHIFT)
(APPLIES ONLY TO WORK ON THE CONSTRUCTION SITE)

Determination:
SC-23-261-2-2022-1

Issue Date:
August 22, 2022

Expiration date of determination:
June 30, 2023** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

Wages and total hourly rates (including employer payments):

Classification ^a (Journeyman)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate ^b (1½ x)	Saturday Overtime Hourly Rate ^b (1½ x)	Sunday/Holiday Overtime Hourly Rate (2 x)
Group I	\$37.19	8	\$69.73	\$88.325	\$88.325	\$106.92
Group II	\$37.34	8	\$69.88	\$88.55	\$88.55	\$107.22
Group III	\$37.47	8	\$70.01	\$88.745	\$88.745	\$107.48
Group IV	\$37.66	8	\$70.20	\$89.03	\$89.03	\$107.86
Group V	\$37.69	8	\$70.23	\$89.075	\$89.075	\$107.92
Group VI	\$37.72	8	\$70.26	\$89.12	\$89.12	\$107.98
Group VII	\$37.97	8	\$70.51	\$89.495	\$89.495	\$108.48
Group VIII	\$38.22	8	\$70.76	\$89.87	\$89.87	\$108.98
Group IX	\$38.42	8	\$70.96	\$90.17	\$90.17	\$109.38
Group X	\$38.72	8	\$71.26	\$90.62	\$90.62	\$109.98
Group XI	\$39.22	8	\$71.76	\$91.37	\$91.37	\$110.98

Employer Payments:

Type of Fund	Amount per Hour
Health and Welfare	\$20.12
Pension	\$7.00
Vacation and Holiday ^c	\$3.15
Training	\$1.82
Other	\$0.45

Wages and total hourly rates (including employer payments):

Classification ^d (Subjourneyman)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate ^b (1½ x)	Saturday Overtime Hourly Rate ^b (1½x)	Sunday/Holiday Overtime Hourly Rate (2 x)
0-2000 hours	\$22.40	8	\$53.79	\$64.99	\$64.99	\$76.19
2001-4000 hours	\$24.40	8	\$56.04	\$68.24	\$68.24	\$80.44
4001-6000 hours	\$26.40	8	\$58.29	\$71.49	\$71.49	\$84.69

Over 6000 hours and thereafter at journeyman rates.

Employer Payments:

Type of Fund	Amount per Hour
Health and Welfare	\$20.12
Pension	\$7.00
Vacation and Holiday ^c	\$2.00 (\$2.25 for 2001-4000 hours; \$2.50 for 4001-6000 hours)
Training	\$1.82
Other	\$0.45

Recognized holidays:

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY
THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: TEAMSTER (SECOND SHIFT)
(APPLIES ONLY TO WORK ON THE CONSTRUCTION SITE)

Determination:
SC-23-261-2-2022-1

Issue Date:
August 22, 2022

Expiration date of determination:
June 30, 2023** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties.

Wages and total hourly rates (including employer payments):

Classification ^a (Journeyman)	Basic Hourly Rate	Hours ^a	Total Hourly Rate	Daily Overtime Hourly Rate ^b (1½ x)	Saturday Overtime Hourly Rate ^b (1½ x)	Sunday/Holiday Overtime Hourly Rate (2 x)
Group I	\$38.19	8	\$70.73	\$89.825	\$89.825	\$108.92
Group II	\$38.34	8	\$70.88	\$90.05	\$90.05	\$109.22
Group III	\$38.47	8	\$71.01	\$90.245	\$90.245	\$109.48
Group IV	\$38.66	8	\$71.20	\$90.53	\$90.53	\$109.86
Group V	\$38.69	8	\$71.23	\$90.575	\$90.575	\$109.92
Group VI	\$38.72	8	\$71.26	\$90.62	\$90.62	\$109.98
Group VII	\$38.97	8	\$71.51	\$90.995	\$90.995	\$110.48
Group VIII	\$39.22	8	\$71.76	\$91.37	\$91.37	\$110.98
Group IX	\$39.42	8	\$71.96	\$91.67	\$91.67	\$111.38
Group X	\$39.72	8	\$72.26	\$92.12	\$92.12	\$111.98
Group XI	\$40.22	8	\$72.76	\$92.87	\$92.87	\$112.98

Employer Payments:

Type of Fund	Amount per Hour
Health and Welfare	\$20.12
Pension	\$7.00
Vacation and Holiday ^c	\$3.15
Training	\$1.82
Other	\$0.45

Wages and total hourly rates (including employer payments):

Classification ^d (Subjourneyman)	Basic Hourly Rate	Hours ^e	Total Hourly Rate	Daily Overtime Hourly Rate ^b (1½ x)	Saturday Overtime Hourly Rate ^b (1½x)	Sunday/Holiday Overtime Hourly Rate (2 x)
0-2000 hours	\$22.40	8	\$53.79	\$64.99	\$64.99	\$76.19
2001-4000 hours	\$24.40	8	\$56.04	\$68.24	\$68.24	\$80.44
4001-6000 hours	\$26.40	8	\$58.29	\$71.49	\$71.49	\$84.69

Over 6000 hours and thereafter at journeyman rates.

Employer Payments:

Type of Fund	Amount per Hour
Health and Welfare	\$20.12
Pension	\$7.00
Vacation and Holiday ^c	\$2.00 (\$2.25 for 2001-4000 hours; \$2.50 for 4001-6000 hours)
Training	\$1.82
Other	\$0.45

Recognized holidays:

Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:

In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the [Director's General Prevailing Wage Determinations Website](http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm) (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Classifications:

Group I

Warehouseman and Teamster

Side Dump Trucks

Flow Boy Dump Trucks

Group II

Driver of Vehicle or Combination of Vehicles - 2 axles
Traffic Control Pilot Car, excluding moving heavy
equipment permit load
Truck Mounted Power Broom

Group VII

A Frame, Swedish Crane or Similar
Forklift Driver
Ross Carrier Driver

Group III

Driver of Vehicle or Combination of Vehicles - 3 axles
Bootman
Cement Mason Distribution Truck
Fuel Truck Driver
Water Truck - 2 axles
Dump Truck of less than 16 yards water level
Erosion Control Driver

Group VIII

Dump Truck of 25 yds to 49 yards water level
Truck Repairman
Water Pull Single Engine
Welder

Group IV

Driver of Transit Mix Truck-Under 3 yds
Dumpcrete Truck Less than 6½ yards water level
Truck Repairman Helper

Group IX

Truck Repairman Welder
Low Bed Driver, 9 axles or over

Group V

Water Truck 3 or more axles
Warehouseman Clerk
Slurry Truck Driver

Group X

Working Truck Driver
Truck Greaser and Tireman - \$0.50 additional for
Tireman
Pipeline and Utility Working Truck Driver, including
Winch Truck and Plastic Fusion, limited to Pipeline
and Utility Work
Dump Truck and Articulating - 50 yards or more water
level
Water Pull Single Engine with attachment

Group VI

Driver of Transit Mix Truck - 3 yds or more
Dumpcrete Truck 6½ yds water level and over
Driver of Vehicle or Combination of Vehicles - 4 or
more axles
Driver of Oil Spreader Truck
Dump Truck 16 yds to 25 yds water level

Group XI

Water Pull Twin Engine
Water Pull Twin Engine with attachments
Winch Truck Driver - \$0.25 additional when operating
a Winch or similar special attachment

[#] Indicates an apprenticeable craft. The current apprentice wage rates are available on the [Prevailing Wage Apprentice Determinations Website](http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp) (<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>).

^a For classifications within each group, see Page 7.

^b Rate applies to the first 4 daily overtime hours on weekdays and the first 12 hours on Saturday. All other overtime is paid at the Sunday/Holiday double-time rate.

^c Includes an amount for Supplemental Dues.

^d Subjourneyman may be employed at a ratio of one subjourneyman for every five journeyman.

^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.

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NOT FOR BID

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-2022-2

CRAFT	CLASSIFICATION	CRAFT FOOT NOTE	ISSUE DATE	EXPIRATION DATE	BASIC HOURLY RATE	BASIC HRLY RATE FOOT NOTE	HEALTH AND WELFARE	H&W FOOT NOTE	PENSION	PENSION FOOT NOTE	VACATION/ HOLIDAY	VACAY/ HOLIDAY FOOT NOTE	TRAINING	TRAINING FOOT NOTE	OTHER PMTS	OTHER PMTS FOOT NOTE	HRS	HOURS FOOT NOTE	STRAIGHT- TIME TOTAL HOURLY RATE	DAILY OT HOURLY RATE	DAILY OT HRLY RATE FOOT NOTE	SAT OT HOURLY RATE	SAT OT HRLY RATE FOOT NOTE	SUNDAY AND HOLIDAY OVERTIME HOURLY RATE	SUN & HOLIDAY OT HRLY RATE FOOT NOTE	HOLIDAY PRO- VISIONS	SCOPE OF WORK PRO- VISIONS	TRAVEL & SUBSIS- TENCE PROVISIONS
#BRICKLAYER:	BRICKLAYER, CEMENT BLOCKLAYER, POINTER, CAULKER, CLEANER		08/22/2022	04/30/2023**	\$45.100	A	\$9.250		\$9.480		\$0.000		\$1.160	B	\$0.850		8.0	C	\$65.840	\$88.390	D	\$88.390	D	\$110.940		Holidays	Scope of Work	Travel & Subsistence
#BRICKLAYER:	STONEMASON, MARBLE MASON		08/22/2022	04/30/2023**	\$45.100	A	\$9.250		\$9.480		\$0.000		\$1.160	B	\$0.450		8.0	C	\$65.440	\$87.990	D	\$87.990	D	\$110.540		Holidays	Scope of Work	Travel & Subsistence
#BRICKLAYER:	MASON FINISHER		08/22/2022	04/30/2023**	\$40.590	A	\$9.250		\$9.480		\$0.000		\$1.110	B	\$0.450		8.0	C	\$60.880	\$81.180	D	\$81.180	D	\$101.470		Holidays	Scope of Work	Travel & Subsistence
#BRICK TENDER		E	08/22/2022	06/30/2023**	\$37.320		\$8.750		\$9.330	F	\$4.400	G	\$0.700		\$0.450		8.0	C	\$60.950	\$79.610		\$79.610		\$98.270		Holidays	Scope of Work	Travel & Subsistence
#BRICK TENDER	FORKLIFT OPERATOR		08/22/2022	06/30/2023**	\$37.770		\$8.750		\$9.330	F	\$4.400	G	\$0.700		\$0.450		8.0	C	\$61.400	\$80.290		\$80.290		\$99.170		Holidays	Scope of Work	Travel & Subsistence
#CARPET, LINOLEUM,	RESILIENT TILE LAYER		08/22/2022	12/31/2022**	\$39.950	H	\$6.780		\$5.550		\$2.320		\$0.630		\$0.280		8.0		\$55.510	\$75.490		\$75.490	I	\$95.460		Holidays	Scope of Work	Travel & Subsistence
CARPET, LINOLEUM,	MATERIAL HANDLER	J	08/22/2022	12/31/2022**	\$15.980	H	\$6.780		\$1.940		\$0.820		\$0.630		\$0.280		8.0		\$26.430	\$34.420		\$34.420	K	\$42.410		Holidays	Scope of Work	Travel & Subsistence
#DRYWALL FINISHER			08/22/2022	08/31/2023**	\$46.280	H	\$8.850		\$8.730		\$5.070		\$0.870		\$1.020		8.0		\$70.820	\$93.960		\$93.960	L	\$117.100		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	SOUND INSTALLER		02/22/2022	11/30/2022*	\$39.600		\$9.690		\$6.550	M	\$0.000		\$0.650		\$0.300	N	8.0		\$57.980	\$78.370	O	\$78.370	O	\$98.770		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	INSIDE WIREMAN (ZONE A)	P	08/22/2022	05/31/2023**	\$48.200	Q	\$10.960		\$14.290	M	\$0.000		\$0.780		\$0.240	R	8.0		\$76.300	\$101.240	S	\$101.240	S	\$126.180		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	INSIDE WIREMAN (ZONE B)	I	08/22/2022	05/31/2023**	\$63.900	Q	\$10.960		\$14.290	M	\$0.000		\$0.880		\$0.320	U	8.0		\$92.750	\$125.820	S	\$125.820	S	\$158.880		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	CABLE SPLICER (ZONE A)	P	08/22/2022	05/31/2023**	\$50.610	Q	\$10.960		\$14.290	M	\$0.000		\$0.780		\$0.250	R	8.0		\$78.790	\$104.980	S	\$104.980	S	\$131.170		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	CABLE SPLICER (ZONE B)	I	08/22/2022	05/31/2023**	\$67.100	Q	\$10.960		\$14.290	M	\$0.000		\$0.880		\$0.340	U	8.0		\$96.060	\$130.790	S	\$130.790	S	\$165.520		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	TUNNEL WIREMAN (ZONE A)	P	08/22/2022	05/31/2023**	\$53.020	Q	\$10.960		\$14.290	M	\$0.000		\$0.780		\$0.270	R	8.0		\$81.290	\$108.730	S	\$108.730	S	\$136.170		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	TUNNEL WIREMAN (ZONE B)	I	08/22/2022	05/31/2023**	\$70.290	Q	\$10.960		\$14.290	M	\$0.000		\$0.880		\$0.350	U	8.0		\$99.360	\$135.730	S	\$135.730	S	\$172.110		Holidays	Scope of Work	Travel & Subsistence
#FIELD SURVEYOR:	CHIEF OF PARTY (018.167-010)	V	02/22/2022	09/30/2022*	\$55.260		\$11.850		\$13.150		\$4.820	G	\$1.150		\$0.150		8.0		\$86.380	\$114.010	O	\$114.010	O	\$141.640		Holidays	Scope of Work	Travel & Subsistence
#FIELD SURVEYOR:	INSTRUMENTMAN (018.167-034)	V	02/22/2022	09/30/2022*	\$51.860		\$11.850		\$13.150		\$4.650	G	\$1.150		\$0.150		8.0		\$82.810	\$108.740	O	\$108.740	O	\$134.670		Holidays	Scope of Work	Travel & Subsistence
#FIELD SURVEYOR:	CHAINMAN/RODMAN (869.567-010)	V	02/22/2022	09/30/2022*	\$51.280		\$11.850		\$13.150		\$4.600	G	\$1.150		\$0.150		8.0		\$82.180	\$107.820	O	\$107.820	O	\$133.460		Holidays	Scope of Work	Travel & Subsistence
#GLAZIER			08/22/2022	05/31/2023*	\$53.000	W	\$8.250	X	\$14.850		\$0.000	Y	\$0.770		\$0.980		8.0		\$77.850	\$101.850	Z	\$101.850	Z	\$125.850		Holidays	Scope of Work	Travel & Subsistence
#MARBLE FINISHER			08/22/2022	12/31/2022**	\$37.870	AA	\$9.000		\$4.270		\$0.000		\$0.870		\$0.400		8.0		\$52.410	\$71.350	AB	\$71.350	AC	\$90.280	AD	Holidays	Scope of Work	Travel & Subsistence
#PAINTER:	PAINTER, LEAD ABATEMENT	AE	08/22/2022	06/30/2023**	\$36.420	Q	\$9.000		\$5.440		\$3.050		\$0.750		\$1.010		8.0		\$55.670	\$73.880	AF	\$73.880	AF	\$92.090		Holidays	Scope of Work	Travel & Subsistence
#PAINTER:	INDUSTRIAL PAINTER	AE	08/22/2022	06/30/2023**	\$39.070	Q	\$9.000		\$5.440		\$3.350		\$0.850		\$1.010		8.0		\$58.720	\$78.260	AF	\$78.260	AF	\$97.790		Holidays	Scope of Work	Travel & Subsistence

CRAFT	CLASSIFICATION	C R A F T FOOT NOTE	ISSUE DATE	EXPIRATION DATE	BASIC HOURLY RATE	BASIC HRLY RATE FOOT NOTE	HEALTH AND WELFARE	H&W FOOT NOTE	PENSION	P E N S I O N FOOT NOTE	VACATIO N/ HOLIDAY	VACAY/ HOLIDAY FOOT NOTE	TRAINING	TRAINING FOOT NOTE	OTHER PMTS	OTHER PMTS FOOT NOTE	HRS	HOURS FOOT NOTE	STRAIGHT- TIME TOTAL HOURLY RATE	DAILY OT HOURLY RATE	DAILY OT HRLY RATE FOOT NOTE	SAT OT HOURLY RATE FOOT NOTE	SUNDAY AND HOLIDAY OVERTIME HOURLY RATE	SUN & HOLIDAY OT HRLY RATE FOOT NOTE	HOLIDAY PRO- VISIONS	SCOPE OF WORK PRO- VISIONS	TRAVEL & SUBSIS- TENCE PROVISIONS	
PAINTER:	GRAFFITI REMOVAL WORKER JOURNEYMAN (APPLIES ONLY TO PAINT-OVER METHOD)	AG	08/22/2022	01/31/2023* _	\$24.000		\$8.400		\$1.000		\$0.000		\$0.750		\$0.000		8.0		\$34.150	\$46.150		\$46.150	K	\$58.150		Holidays	Scope of Work	Travel & Subsistence
PAINTER:	GRAFFITI REMOVAL WORKER 1 (APPLIES ONLY TO PAINT- OVER METHOD)	AH	08/22/2022	01/31/2023* _	\$16.500		\$8.400		\$1.000		\$0.000		\$0.750		\$0.000		8.0		\$26.650	\$34.900		\$34.900	K	\$43.150		Holidays	Scope of Work	Travel & Subsistence
PAINTER:	GRAFFITI REMOVAL WORKER 2 (APPLIES ONLY TO PAINT- OVER METHOD)	AI	08/22/2022	01/31/2023* _	\$17.370		\$8.400		\$1.000		\$0.000		\$0.750		\$0.000		8.0		\$27.520	\$36.210		\$36.210	K	\$44.890		Holidays	Scope of Work	Travel & Subsistence
#PLASTERER			08/22/2022	07/31/2023** _	\$40.430		\$9.380		\$9.020		\$6.940	AJ	\$1.240		\$1.190		8.0	AK	\$68.200	\$88.420	AF	\$88.420	AL	\$108.630		Holidays	Scope of Work	Travel & Subsistence
#PLASTER TENDER		AM	08/22/2022	08/01/2023** _	\$41.470		\$8.750		\$10.220		\$5.300	AN	\$1.100		\$0.960		8.0		\$67.800	\$88.540	AO	\$88.540	AP	\$109.270		Holidays	Scope of Work	Travel & Subsistence
PLASTER TENDER	PLASTER CLEAN-UP LABORER		08/22/2022	08/01/2023** _	\$38.920		\$8.750		\$10.220		\$5.300	AN	\$1.100		\$0.960		8.0		\$65.250	\$84.710	AO	\$84.710	AP	\$104.170		Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	PLUMBER, INDUSTRIAL AND GENERAL PIPEFITTER		08/22/2022	08/31/2023** _	\$55.180	AQ	\$9.260		\$14.200	AR	\$0.000	AS	\$2.800		\$1.400	AT	8.0		\$82.840	\$109.510	D	\$109.510	D	\$134.520		Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	SEWER AND STORM DRAIN PIPELAYER		08/22/2022	08/31/2023** _	\$42.290	AQ	\$9.150		\$11.350	AR	\$0.000	AS	\$2.530		\$1.400	AT	8.0		\$66.720	\$86.940		\$86.940	AU	\$106.530		Holidays	Scope of Work	Travel & Subsistence
PLUMBER:	SEWER AND STORM DRAIN PIPE TRADESMAN	AV	08/22/2022	08/31/2023** _	\$20.880	AW	\$9.400		\$0.380		\$0.000		\$1.610		\$1.250	AT	8.0		\$33.520	\$43.040		\$43.040	AU	\$52.550		Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	SERVICE & REPAIR (PLUMBER/HVAC- FITTER)		08/22/2022	08/31/2023** _	\$53.510	AQ	\$9.260		\$13.890	AR	\$0.000	AS	\$2.130		\$1.400	AT	8.0		\$80.190	\$106.020		\$106.020	AX	\$130.200	AY	Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	LANDSCAPE/ IRRIGATION FITTER		08/22/2022	08/31/2023** _	\$38.200	AA	\$9.260		\$14.200	AR	\$0.000	AS	\$2.190		\$1.200	AT	8.0	AU	\$65.050	\$84.150		\$84.150		\$101.870		Holidays	Scope of Work	Travel & Subsistence
PLUMBER:	LANDSCAPE/ IRRIGATION TRADESMAN	AZ	08/22/2022	08/31/2023** _	\$16.670	AA	\$3.000		\$1.160	AR	\$0.000		\$0.100		\$1.000	AT	8.0	AU	\$21.930	\$30.270		\$30.270		\$38.600		Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	FIRE SPRINKLER FITTER (PROTECTION AND CONTROL SYSTEMS, OVERHEAD AND UNDERGROUND)	BA	02/22/2022	12/31/2022** _	\$41.270		\$10.990		\$15.260	BB	\$0.000		\$0.520		\$0.250		8.0		\$68.290	\$88.930		\$88.930		\$109.560		Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	FIRE SPRINKLER FITTER (PROTECTION AND CONTROL SYSTEMS, OVERHEAD AND UNDERGROUND)	BC	08/22/2022	12/31/2022** _	\$52.610		\$10.990		\$18.100		\$0.000	BD	\$1.600		\$0.450	BE	8.0		\$83.750	\$110.060	BF	\$110.060	BF	\$136.360		Holidays	Scope of Work	Travel & Subsistence
#ROOFER			08/22/2022	07/31/2023* _	\$43.470	BG	\$8.560		\$10.370	F	\$0.000	BH	\$0.530		\$0.690	BI	8.0		\$63.620	\$83.330	BJ	\$83.330	BJ	\$103.040		Holidays	Scope of Work	Travel & Subsistence
#ROOFER	PITCH WORK		08/22/2022	07/31/2023* _	\$45.220	BG	\$8.560		\$10.370	F	\$0.000	BH	\$0.530		\$0.690	BI	8.0		\$65.370	\$85.960	BJ	\$85.960	BJ	\$106.540		Holidays	Scope of Work	Travel & Subsistence
#ROOFER	PREPARER		08/22/2022	07/31/2023* _	\$44.470	BG	\$8.560		\$10.370	F	\$0.000	BH	\$0.530		\$0.690	BI	8.0		\$64.620	\$84.830	BJ	\$84.830	BJ	\$105.040		Holidays	Scope of Work	Travel & Subsistence

CRAFT	CLASSIFICATION	C R A F T FOOT NOTE	ISSUE DATE	EXPIRATION DATE	BASIC HOURLY RATE	BASIC HRLY RATE FOOT NOTE	HEALTH AND WELFARE	H&W FOOT NOTE	PENSION	P E N S I O N FOOT NOTE	VACATIO N/ HOLIDAY	VACAY/ HOLIDAY FOOT NOTE	TRAINING	TRAINING FOOT NOTE	OTHER PMTS	OTHER PMTS FOOT NOTE	HRS	HOURS FOOT NOTE	STRAIGHT- TIME TOTAL HOURLY RATE	DAILY OT HOURLY RATE	DAILY OT HRLY RATE FOOT NOTE	SAT OT HOURLY RATE	SAT OT HRLY RATE FOOT NOTE	SUNDAY AND HOLIDAY OVERTIME HOURLY RATE	SUN & HOLIDAY OT HRLY RATE FOOT NOTE	HOLIDAY PRO- VISIONS	SCOPE OF WORK PRO- VISIONS	TRAVEL & SUBSIS- TENCE PROVISIONS
#SHEET METAL WORKER			08/22/2022	12/31/2022**	\$51.880	Q	\$11.120		\$17.820	BK	\$0.000		\$0.820		\$0.680		8.0		\$82.320	\$108.260	BL	\$108.260	BL	\$134.200		Holidays	Scope of Work	Travel & Subsistence
#TERRAZZO FINISHER			08/22/2021	08/31/2022*	\$35.430	H	\$9.000		\$4.350		\$0.000	BD	\$0.750		\$0.270		8.0	AU	\$49.800	\$67.510	AB	\$67.510	BM	\$85.230	AD	Holidays	Scope of Work	Travel & Subsistence
#TERRAZZO WORKER			08/22/2021	08/31/2022*	\$43.610	H	\$9.000		\$4.610		\$0.000	BD	\$1.020		\$0.330		8.0	AU	\$58.570	\$80.380	AB	\$80.380	BM	\$102.180	AD	Holidays	Scope of Work	Travel & Subsistence
#TILE FINISHER			08/22/2022	12/31/2022**	\$32.440	AA	\$9.000		\$2.750		\$0.000		\$0.800		\$0.360		8.0		\$45.350	\$61.570	AB	\$61.570	AC	\$77.790	AD	Holidays	Scope of Work	Travel & Subsistence
#TILE LAYER			08/22/2022	12/31/2022**	\$45.050	AA	\$9.000		\$8.350		\$0.000		\$0.990		\$0.460		8.0		\$63.850	\$86.380	AB	\$86.380	AC	\$108.900	AD	Holidays	Scope of Work	Travel & Subsistence

FOOTNOTES

* EFFECTIVE UNTIL SUPERSEDED BY A NEW DETERMINATION ISSUED BY THE DIRECTOR OF INDUSTRIAL RELATIONS. CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774 FOR THE NEW RATES AFTER TEN DAYS AFTER THE EXPIRATION DATE IF NO SUBSEQUENT DETERMINATION IS ISSUED.

** THE RATE TO BE PAID FOR WORK PERFORMED AFTER THIS DATE HAS BEEN DETERMINED. IF WORK WILL EXTEND PAST THIS DATE, THE NEW RATE MUST BE PAID AND SHOULD BE INCORPORATED IN CONTRACTS ENTERED INTO NOW. CONTACT THE OFFICE OF THE DIRECTOR RESEARCH UNIT FOR SPECIFIC RATES AT (415) 703-4774.

INDICATES AN APPRENTICEABLE CRAFT. THE CURRENT APPRENTICE WAGE RATES ARE AVAILABLE ON THE INTERNET @ [HTTP://WWW.DIR.CA.GOV/OPRL/PWAPPWAGE/PWAPPWAGESTART.ASP](http://www.dir.ca.gov/OPRL/PWAPPWAGE/PWAPPWAGESTART.ASP).

& THE BASIC HOURLY RATE AND EMPLOYER PAYMENTS ARE NOT TAKEN FROM A COLLECTIVE BARGAINING AGREEMENT FOR THIS CRAFT OR CLASSIFICATION.

A INCLUDES 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 ANNUITY TRUST FUND.

G INCLUDES AN AMOUNT PER HOUR WORKED FOR SUPPLEMENTAL DUES.

H INCLUDES AMOUNT WITHHELD FOR DUES CHECK OFF.

I RATE APPLIES TO THE FIRST 12 HOURS WORKED ON SATURDAY, ALL OTHER TIME IS PAID AT DOUBLE TIME. SATURDAY MAY BE WORKED AT THE STRAIGHT-TIME HOURLY RATE FOR THE FIRST 8 HOURS IF INCLEMENT WEATHER FORCES A SYNTHETIC/ARTIFICIAL TURF PROJECT TO SHUT DOWN DURING THE REGULAR WORK WEEK (MONDAY THOUGH FRIDAY).

J A MATERIAL HANDLER MAY BE UTILIZED IN RATIO OF ONE (1) MATERIAL HANDLER WITH ANY FIVE (5) JOURNEYMEN ON ANY GIVEN PROJECT.

K RATE APPLIES TO THE FIRST 12 HOURS ON SATURDAY, ALL OTHER TIME IS PAID AT DOUBLE TIME.

L RATE APPLIES TO FIRST 8 HOURS ONLY. DOUBLE TIME THEREAFTER. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER.

M IN ADDITION, AN AMOUNT EQUAL TO 3% OF THE BASIC HOURLY RATE IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE NATIONAL EMPLOYEES BENEFIT BOARD.

N INCLUDES AN AMOUNT FOR THE NATIONAL LABOR-MANAGEMENT COOPERATION FUND AND THE ADMINISTRATIVE MAINTENANCE FUND.

O	RATE APPLIES TO THE FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 12 HOURS WORKED ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.
P	ZONE A IS DEFINED AS THE PORTION OF SAN BERNARDINO COUNTY 80 ROAD MILES FROM SAN BERNARDINO CITY HALL AT 290 N D STREET IN SAN BERNARDINO, CA 93401.
Q	INCLUDES AMOUNT WITHHELD FOR WORKING DUES.
R	IN ADDITION TO THE AMOUNT SHOWN, WHICH IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER FOR EACH OVERTIME HOUR, \$0.38 IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE LABOR MANAGEMENTCOOPERATION COMMITTEE FUND. AMOUNT FOR LABOR MANAGEMENTCOOPERATION COMMITTEE FUND IS NOT FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER
S	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.
T	ZONE B INCLUDES ALL OF INYO AND MONO COUNTY AND THE PORTION OF SAN BERNARDINO COUNTY OVER 80 MILES FROM SAN BERNARDINO CITY HALL AT 290 NORTH D STREET IN SAN BERNARDINO, CA 93401.
U	IN ADDITION TO THE AMOUNT SHOWN, WHICH IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER FOR EACH OVERTIME HOUR, \$0.48 IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE LABOR MANAGEMENTCOOPERATION COMMITTEE FUND. AMOUNT FOR LABOR MANAGEMENTCOOPERATION COMMITTEE FUND IS NOT FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER
V	DICTIONARY OF OCCUPATIONAL TITLES, FOURTH EDITION, 1977, U.S. DEPARTMENT OF LABOR.
W	INCLUDES AMOUNT WITHHELD FOR DUES CHECKOFF, WHICH IS FACTORED IN THE OVERTIME RATES. INCLUDES \$3.75 FOR VACATION THAT IS NOT FACTORED IN THE OVERTIME RATES.
X	INCLUDES AN AMOUNT PER HOUR WORKED OR PAID TO DISABILITY FUND.
Y	INCLUDED IN STRAIGHT-TIME HOURLY RATE WHICH IS NOT FACTORED IN THE OVERTIME RATES.
Z	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.
AA	INCLUDES AMOUNT WITHHELD FOR ADMINISTRATIVE DUES.
AB	RATE APPLIES TO FIRST TWO DAILY OVERTIME HOURS WORKED; ALL OTHER OVERTIME IS PAID AT THE HOLIDAY OVERTIME HOURLY RATE.
AC	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.
AD	RATE APPLIES TO WORK ON HOLIDAYS ONLY; SUNDAYS ARE PAID AT THE SATURDAY OVERTIME HOURLY RATE.
AE	AN ADDITIONAL \$0.25 PER HOUR WILL BE ADDED TO THE BASIC HOURLY RATE WHEN PERFORMING PAPERHANGING WORK.
AF	DOUBLE TIME SHALL BE PAID FOR ALL HOURS WORKED OVER 12 HOURS IN ANY ONE DAY.
AG	RATE APPLIES AFTER 36 MONTHS OF EXPERIENCE
AH	RATE APPLIES TO FIRST 12 MONTHS OF EXPERIENCE
AI	RATE APPLIES AFTER 12 MONTHS THROUGH 36 MONTHS EXPERIENCE
AJ	INCLUDES AN AMOUNT PER HOUR WORKED OR PAID FOR DUES CHECK OFF
AK	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.
AL	RATE APPLIES TO THE FIRST 8 HOURS WORKED; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.
AM	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.
AN	INCLUDES AN AMOUNT PER HOUR WORKED OR PAID FOR SUPPLEMENTAL DUES.
AO	ALL WORK PERFORMED AFTER TWELVE (12) HOURS IN A DAY SHALL BE PAID AT THE SUNDAY/HOLIDAY RATE.

- AP 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.
- AQ 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.
- AR INCLUDES AMOUNT FOR NATIONAL PENSION AND RETIREE'S X-MAS FUND.
- AS AMOUNT INCLUDED IN BASIC HOURLY RATE AND FACTORED AT 1.5 TIMES FOR ALL OVERTIME.
- AT INCLUDES AN AMOUNT FOR THE P.I.P.E. LABOR MANAGEMENT COOPERATION COMMITTEE AND THE CONTRACTOR EDUCATION & DEVELOPMENT FUND.
- AU 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.
- AV PIPE TRADESMEN SHALL NOT BE PERMITTED ON ANY JOB WITHOUT A JOURNEYMAN.
- AW INCLUDES AN AMOUNT WITHHELD FOR ADMINISTRATIVE DUES WHICH IS NOT FACTORED IN THE OVERTIME RATES.
- AX SATURDAY MAY BE WORKED AT STRAIGHT-TIME RATE, PROVIDED THAT THE HOURS DO NOT EXCEED 8 HOURS PER DAY OR 40 HOURS PER WEEK.
- AY DOUBLE TIME SHALL BE PAID FOR NEW YEAR'S DAY, EASTER SUNDAY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS.
- AZ 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.
- BA RATE APPLIES TO REMAINDER OF COUNTY.
- BB INCLUDES AN AMOUNT FOR SUPPLEMENTAL PENSION FUND.
- BC APPLIES TO THE CITIES OF ONTARIO AND MONTCLAIR.
- BD INCLUDED IN STRAIGHT-TIME HOURLY RATE.
- BE AMOUNT IS FOR INDUSTRY PROMOTION FUND AND P.I.P.E. FUND.
- BF RATE APPLIES TO THE FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.
- BG INCLUDE AMOUNTS FOR DUES CHECK OFF AND VACATION/HOLIDAY, WHICH ARE NOT FACTORED INTO OVERTIME.
- BH INCLUDED IN BASIC HOURLY RATE. VACATION IS NOT FACTORED INTO OVERTIME.
- BI INCLUDE AMOUNTS FOR ADMINISTRATIVE FUND, COMPLIANCE FUND, INDUSTRY FUND, AND RESEARCH AND EDUCATION TRUST FUND.
- BJ RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; SUNDAY AND HOLIDAY OVERTIME HOURLY RATE WILL BE PAID AFTER 10 HOURS PER DAY AND ALL HOURS WORKED OVER 55 HOURS PER WEEK.
- BK 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.
- BL 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.
- BM RATE APPLIES TO THE FIRST 8 HOURS WORKED ON A SIXTH OR SEVENTH CONSECUTIVE DAY DURING ANY ONE CALENDAR WEEK UP TO 50 HOURS IN ANY ONE CALENDAR WEEK. ALL OTHER TIME IS PAID AT THE HOLIDAY RATE.

RECOGNIZED HOLIDAYS: HOLIDAYS UPON WHICH THE GENERAL PREVAILING HOURLY WAGE RATE FOR HOLIDAY WORK SHALL BE PAID, SHALL BE ALL HOLIDAYS IN THE COLLECTIVE BARGAINING AGREEMENT, APPLICABLE TO THE PARTICULAR CRAFT, CLASSIFICATION, OR TYPE OF WORKER EMPLOYED ON THE PROJECT, WHICH IS ON FILE WITH THE DIRECTOR OF INDUSTRIAL RELATIONS. IF THE PREVAILING RATE IS NOT BASED ON A COLLECTIVELY BARGAINED RATE, THE HOLIDAYS UPON WHICH THE PREVAILING RATE SHALL BE PAID SHALL BE AS PROVIDED IN SECTION 6700 OF THE GOVERNMENT CODE. YOU MAY OBTAIN THE HOLIDAY PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT [HTTP://WWW.DIR.CA.GOV/OPRL/DPreWageDetermination.htm](http://WWW.DIR.CA.GOV/OPRL/DPreWageDetermination.htm). HOLIDAY PROVISIONS FOR THE CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE: IN ACCORDANCE WITH LABOR CODE SECTIONS 1773.1 AND 1773.9, CONTRACTORS SHALL MAKE TRAVEL AND/OR SUBSISTENCE PAYMENTS TO EACH WORKER TO EXECUTE THE WORK. YOU MAY OBTAIN THE TRAVEL AND/OR SUBSISTENCE PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT [HTTP://WWW.DIR.CA.GOV/OPRL/DPreWageDetermination.htm](http://WWW.DIR.CA.GOV/OPRL/DPreWageDetermination.htm). TRAVEL AND/OR SUBSISTENCE REQUIREMENTS FOR CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.

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NOT FOR BID

Apprentice Determinations

GENERAL PREVAILING WAGE APPRENTICE RATES – CEMENT MASON

Apprentice Prevailing Wage Rates are paid only to apprentices registered with the State of California, Division of Apprenticeship Standards, for work the registered apprentice performs in his/her specific craft or trade. You may check whether an Apprentice is registered at the Division of Apprenticeship Standards Website (<https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp>)

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 06-30-2023 **
- **Craft/Classification:** Cement Mason
- **Counties:** Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, Ventura

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	6	N/A	\$21.000	\$8.430	\$0.000	\$2.410	\$0.640	\$0.240	\$32.720
2	6	N/A	\$23.100	\$8.430	\$0.000	\$2.410	\$0.640	\$0.240	\$34.820
3	6	N/A	\$25.200	\$8.430	\$0.000	\$2.410	\$0.640	\$0.240	\$36.920
4	6	N/A	\$27.300	\$8.430	\$0.000	\$7.310	\$0.640	\$0.240	\$43.920
5	6	N/A	\$29.400	\$8.430	\$10.480	\$7.310	\$0.640	\$0.240	\$56.500
6	6	N/A	\$31.500	\$8.430	\$10.480	\$7.310	\$0.640	\$0.240	\$58.600
7	6	N/A	\$33.600	\$8.430	\$10.480	\$7.310	\$0.640	\$0.240	\$60.700
8	6	N/A	\$37.800	\$8.430	\$10.480	\$7.310	\$0.640	\$0.240	\$64.900

A. FOOTNOTE(S)

Vacation - includes an amount for supplemental dues.

Other - includes amounts for Industry Advancement, Contract Administration, and Labor-Management Cooperation Committee Trust.

** Journeyman Predetermined Increases

Effective 7/1/2023 - an increase of \$2.25 to be allocated: \$0.15 to Pension, and \$2.10 to wages and/or fringes.

Effective 7/1/2024 - an increase of \$2.15 to be allocated: \$0.15 to Pension, and \$2.00 to wages and/or fringes.

NOTE: As there may be corresponding predetermined increase(s) to ANY and ALL of the apprentices associated with the journeyman crafts/classifications listed herein, please email a request to statistics@dir.ca.gov or send to the following address, if not listed on the Department of Industrial Relations (DIR) website @ [Director's General Prevailing Wage Determinations \(ca.gov\)](http://www.dir.ca.gov):

Department of Industrial Relations
Office of the Director - Research Unit
P.O. Box 420603
San Francisco, CA 94142-0603

GENERAL PREVAILING WAGE APPRENTICE RATES – ELECTRICIAN, INSIDE WIREMAN

Apprentice Prevailing Wage Rates are paid only to apprentices registered with the State of California, Division of Apprenticeship Standards, for work the registered apprentice performs in his/her specific craft or trade. You may check whether an Apprentice is registered at the [Division of Apprenticeship Standards Website](https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp) (<https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp>)

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 05-31-2023 **
- **Craft/Classification:** Electrician, Inside Wireman
- **Indentured/Other:** ZONE A
- **Shift:** 1
- **Counties:** San Bernardino

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	6	N/A	\$19.280	\$10.960	\$0.580	\$0.000	\$0.000	\$0.000	\$30.820
2	6	N/A	\$21.690	\$10.960	\$0.650	\$0.000	\$0.000	\$0.000	\$33.300
3	12	N/A	\$24.100	\$10.960	\$7.870	\$0.000	\$0.780	\$0.500	\$44.210
4	12	N/A	\$28.920	\$10.960	\$9.440	\$0.000	\$0.780	\$0.520	\$50.620
5	12	N/A	\$33.740	\$10.960	\$11.010	\$0.000	\$0.780	\$0.550	\$57.040
6	12	N/A	\$40.970	\$10.960	\$13.380	\$0.000	\$0.780	\$0.580	\$66.670

B. FOOTNOTE(S)

Zone A is defined as the portion of the San Bernardino County 80 road miles from San Bernardino City Hall at 290 N D Street in San Bernardino, CA 93401. For projects located outside Zone A, the Zone B rates apply.

Pension -- includes an amount equal to 3% of BHR for the National Employees Benefit Fund (NEBF). NEBF is factored at the applicable overtime multiplier.

Other -- (excluding Period 1 and 2) Includes amounts for LMCC and Administrative Maintenance Fund (0.5% of BHR). Administrative Maintenance Fund is factored at the applicable overtime multiplier.

JOURNEYMAN PREDETERMINED INCREASES:

Effective 6/1/2023: an increase of \$3.15 allocated to wages and/or employer payments.

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 05-31-2023 **
- **Craft/Classification:** Electrician, Inside Wireman
- **Indentured/Other:** ZONE A - 2nd Shift
- **Shift:** 2
- **Counties:** San Bernardino

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	6	N/A	\$22.620	\$10.960	\$.680	\$.000	\$.000	\$.000	\$34.260
2	6	N/A	\$25.440	\$10.960	\$.760	\$.000	\$.000	\$.000	\$37.160
3	12	N/A	\$28.270	\$10.960	\$8.000	\$.000	\$.780	\$.520	\$48.530
4	12	N/A	\$33.920	\$10.960	\$9.590	\$.000	\$.780	\$.550	\$55.800
5	12	N/A	\$39.580	\$10.960	\$11.190	\$.000	\$.780	\$.580	\$63.090
6	12	N/A	\$48.060	\$10.960	\$13.590	\$.000	\$.780	\$.620	\$74.010

C. FOOTNOTE(S)

Zone A is defined as the portion of the San Bernardino County 80 road miles from San Bernardino City Hall at 290 N D Street in San Bernardino, CA 93401. For projects located outside Zone A, the Zone B rates apply.

Pension -- includes an amount equal to 3% of BHR for the National Employees Benefit Fund (NEBF). NEBF is factored at the applicable overtime multiplier.

Other -- (excluding Period 1 and 2) Includes amounts for LMCC and Administrative Maintenance Fund (0.5% of BHR). Administrative Maintenance Fund is factored at the applicable overtime multiplier.

JOURNEYMAN PREDETERMINED INCREASES:

Effective 6/1/2023: an increase of \$3.15 allocated to wages and/or employer payments.

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 05-31-2023 **
- **Craft/Classification:** Electrician, Inside Wireman
- **Indentured/Other:** ZONE A - 3rd Shift
- **Shift:** 3
- **Counties:** San Bernardino

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	6	N/A	\$25.330	\$10.960	\$.760	\$.000	\$.000	\$.000	\$37.050
2	6	N/A	\$29.930	\$10.960	\$.900	\$.000	\$.000	\$.000	\$41.790
3	12	N/A	\$31.670	\$10.960	\$8.100	\$.000	\$.780	\$.540	\$52.050
4	12	N/A	\$38.000	\$10.960	\$9.710	\$.000	\$.780	\$.570	\$60.020
5	12	N/A	\$44.330	\$10.960	\$11.330	\$.000	\$.780	\$.600	\$68.000
6	12	N/A	\$53.830	\$10.960	\$13.770	\$.000	\$.780	\$.650	\$79.990

D. FOOTNOTE(S)

Zone A is defined as the portion of the San Bernardino County 80 road miles from San Bernardino City Hall at 290 N D Street in San Bernardino, CA 93401. For projects located outside Zone A, the Zone B rates apply.

Pension -- includes an amount equal to 3% of BHR for the National Employees Benefit Fund (NEBF). NEBF is factored at the applicable overtime multiplier.

Other -- (excluding Period 1 and 2) Includes amounts for LMCC and Administrative Maintenance Fund (0.5% of BHR). Administrative Maintenance Fund are factored at the applicable overtime multiplier.

JOURNEYMAN PREDETERMINED INCREASES:

Effective 6/1/2023: an increase of \$3.15 allocated to wages and/or employer payments.

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 05-31-2023 **
- **Craft/Classification:** Electrician, Inside Wireman
- **Indentured/Other:** ZONE B
- **Shift:** 1
- **Counties:** Inyo, Mono, San Bernardino

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	6	N/A	\$25.560	\$10.960	\$.770	\$.000	\$.000	\$.000	\$37.290
2	6	N/A	\$28.760	\$10.960	\$.860	\$.000	\$.000	\$.000	\$40.580
3	12	N/A	\$31.950	\$10.960	\$8.110	\$.000	\$.880	\$.640	\$52.540
4	12	N/A	\$38.340	\$10.960	\$9.720	\$.000	\$.880	\$.670	\$60.570
5	12	N/A	\$44.730	\$10.960	\$11.340	\$.000	\$.880	\$.700	\$68.610
6	12	N/A	\$54.320	\$10.960	\$13.780	\$.000	\$.880	\$.750	\$80.690

E. FOOTNOTE(S)

Zone B includes all of Inyo and Mono County and the portion of San Bernardino County over 80 miles from San Bernardino City Hall at 290 North D Street in San Bernardino, CA 93401.

BHR -- Includes amount withheld for working dues.

Pension -- Includes an amount equal to 3% of BHR for the National Employees Benefit Fund (NEBF). NEBF is factored at the applicable overtime multiplier.

Other -- (excluding Period 1 and 2) Includes amounts for LMCC and Administrative Maintenance Fund (0.5% of BHR). Administrative Maintenance Fund is factored at the applicable overtime multiplier.

JOURNEYMAN PREDETERMINED INCREASES:

Effective 6/1/2023: an increase of \$4.15 allocated to wages and/or employer payments.

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 05-31-2023 **
- **Craft/Classification:** Electrician, Inside Wireman
- **Indentured/Other:** ZONE B - 2nd Shift
- **Shift:** 2
- **Counties:** Inyo, Mono, San Bernardino

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	6	N/A	\$29.980	\$10.960	\$.900	\$.000	\$.000	\$.000	\$41.840
2	6	N/A	\$33.730	\$10.960	\$1.010	\$.000	\$.000	\$.000	\$45.700
3	12	N/A	\$37.480	\$10.960	\$8.270	\$.000	\$.880	\$.670	\$58.260
4	12	N/A	\$44.970	\$10.960	\$9.920	\$.000	\$.880	\$.700	\$67.430
5	12	N/A	\$52.470	\$10.960	\$11.570	\$.000	\$.880	\$.740	\$76.620
6	12	N/A	\$63.710	\$10.960	\$14.060	\$.000	\$.880	\$.800	\$90.410

F. FOOTNOTE(S)

Zone B includes all of Inyo and Mono County and the portion of San Bernardino County over 80 miles from San Bernardino City Hall at 290 North D Street in San Bernardino, CA 93401.

BHR -- Includes amount withheld for working dues.

Pension -- Includes an amount equal to 3% of BHR for the National Employees Benefit Fund (NEBF). NEBF is factored at the applicable overtime multiplier.

Other -- (excluding Period 1 and 2) Includes amounts for LMCC and Administrative Maintenance Fund (0.5% of BHR). Administrative Maintenance Fund is factored at the applicable overtime multiplier.

JOURNEYMAN PREDETERMINED INCREASES:

Effective 6/1/2023: an increase of \$4.15 allocated to wages and/or employer payments.

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 05-31-2023 **
- **Craft/Classification:** Electrician, Inside Wireman
- **Indentured/Other:** ZONE B - 3rd Shift
- **Shift:** 3
- **Counties:** Inyo, Mono, San Bernardino

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	6	N/A	\$33.590	\$10.960	\$1.010	\$.000	\$.000	\$.000	\$45.560
2	6	N/A	\$37.780	\$10.960	\$1.130	\$.000	\$.000	\$.000	\$49.870
3	12	N/A	\$41.980	\$10.960	\$8.410	\$.000	\$.880	\$.690	\$62.920
4	12	N/A	\$50.380	\$10.960	\$10.080	\$.000	\$.880	\$.730	\$73.030
5	12	N/A	\$58.780	\$10.960	\$11.760	\$.000	\$.880	\$.770	\$83.150
6	12	N/A	\$71.370	\$10.960	\$14.290	\$.000	\$.880	\$.840	\$98.340

G. FOOTNOTE(S)

Zone B includes all of Inyo and Mono County and the portion of San Bernardino County over 80 miles from San Bernardino City Hall at 290 North D Street in San Bernardino, CA 93401.

BHR -- Includes amount withheld for working dues.

Pension -- Includes an amount equal to 3% of BHR for the National Employees Benefit Fund (NEBF). NEBF is factored at the applicable overtime multiplier.

Other -- (excluding Period 1 and 2) Includes amounts for LMCC and Administrative Maintenance Fund (0.5% of BHR). Administrative Maintenance Fund is factored at the applicable overtime multiplier.

JOURNEYMAN PREDETERMINED INCREASES:

Effective 6/1/2023: an increase of \$4.15 allocated to wages and/or employer payments.

GENERAL PREVAILING WAGE APPRENTICE RATES – CHAINMAN/RODMAN

Apprentice Prevailing Wage Rates are paid only to apprentices registered with the State of California, Division of Apprenticeship Standards, for work the registered apprentice performs in his/her specific craft or trade. You may check whether an Apprentice is registered at the [Division of Apprenticeship Standards Website](https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp) (<https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp>)

- **Determination:** 2022-2
- **Issue Date:** 02-22-2022
- **Expire Date:** 09-30-2022 *
- **Craft/Classification:** Chainman/Rodman
- **Counties:** Imperial, Inyo, Kern, Kings, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, Ventura

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	N/A	500	\$21.540	\$11.850	\$3.500	\$3.600	\$1.150	\$0.150	\$41.790
2	N/A	500	\$25.130	\$11.850	\$3.500	\$3.600	\$1.150	\$0.150	\$45.380
3	N/A	1,000	\$28.720	\$11.850	\$13.150	\$3.600	\$1.150	\$0.150	\$58.620
4	N/A	1,000	\$32.310	\$11.850	\$13.150	\$3.600	\$1.150	\$0.150	\$62.210
5	N/A	1,000	\$35.380	\$11.850	\$13.150	\$3.600	\$1.150	\$0.150	\$65.280
6	N/A	1,000	\$38.460	\$11.850	\$13.150	\$3.600	\$1.150	\$0.150	\$68.360
7	N/A	1,000	\$41.020	\$11.850	\$13.150	\$3.600	\$1.150	\$0.150	\$70.920

H. FOOTNOTE(S)

Pension - Includes an amount for Annuity.

Vacation/Holiday - The amount of \$1.45 is withheld for Supplemental Dues.

Other - Amount (\$0.15) is for the Engineers Contract Compliance Committee.

GENERAL PREVAILING WAGE APPRENTICE RATES – CHIEF OF PARTY

Apprentice Prevailing Wage Rates are paid only to apprentices registered with the State of California, Division of Apprenticeship Standards, for work the registered apprentice performs in his/her specific craft or trade. You may check whether an Apprentice is registered at the [Division of Apprenticeship Standards Website](https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp) (<https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp>)

- **Determination:** 2022-2
- **Issue Date:** 02-22-2022
- **Expire Date:** 09-30-2022 *
- **Craft/Classification:** Chief of Party
- **Counties:** Imperial, Inyo, Kern, Kings, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, Ventura

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	N/A	4,000	\$51.280	\$11.850	\$13.150	\$4.820	\$1.150	\$0.150	\$82.400

I. FOOTNOTE(S)

There is only one (1) period of 4000 OJT hours for Chief of Party apprentices.

Vacation/Holiday - The amount of \$1.45 is withheld for Supplemental Dues.

Other - Amount (\$0.15) is for the Engineers Contract Compliance Committee.

GENERAL PREVAILING WAGE APPRENTICE RATES - LABORER

Apprentice Prevailing Wage Rates are paid only to apprentices registered with the State of California, Division of Apprenticeship Standards, for work the registered apprentice performs in his/her specific craft or trade. You may check whether an Apprentice is registered at the [Division of Apprenticeship Standards Website](https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp) (<https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp>)

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 06-30-2023 **
- **Craft/Classification:** Laborer
- **Counties:** Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, Ventura

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	N/A	500	\$21.120	\$6.130	\$3.560	\$3.510	\$.700	\$.670	\$35.690
2	N/A	500	\$23.230	\$6.130	\$3.560	\$3.510	\$.700	\$.670	\$37.800
3	N/A	500	\$25.340	\$6.130	\$3.560	\$3.510	\$.700	\$.670	\$39.910
4	N/A	500	\$29.560	\$6.130	\$3.560	\$3.510	\$.700	\$.670	\$44.130
5	N/A	500	\$33.780	\$6.130	\$3.560	\$3.510	\$.700	\$.670	\$48.350
6	N/A	500	\$35.900	\$6.130	\$3.560	\$3.510	\$.700	\$.670	\$50.470

J. FOOTNOTE(S)

Note: Apprentice rates are based on JM Laborer Group V rates.

Vacation -- Includes an amount for supplemental dues.

Other -- Includes amounts for Center for Contract Compliance, Industry Fund, and Administrative Trust Fund, Contract Administration Fund and Partnership for Jobs Industry Advancement Fund.

JOURNEYMAN PREDETERMINED INCREASES:

Effective 7/1/2023, there will be an increase of \$3.20 to be allocated to wages and or employer payments.

Effective 7/1/2024, there will be an increase of \$3.30 to be allocated to wages and or employer payments.

Effective 7/1/2025, there will be an increase of \$3.40 to be allocated to wages and or employer payments.

GENERAL PREVAILING WAGE APPRENTICE RATES

Apprentice Prevailing Wage Rates are paid only to apprentices registered with the State of California, Division of Apprenticeship Standards, for work the registered apprentice performs in his/her specific craft or trade. You may check whether an Apprentice is registered at the [Division of Apprenticeship Standards Website](https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp) (<https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp>)

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 06-30-2023 **
- **Craft/Classification:** Operating Engineer
- **Shift:** 1
- **Counties:** Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, Ventura

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	N/A	1,000	\$34.010	\$12.350	\$3.500	\$3.850	\$1.050	\$0.390	\$55.150
2	N/A	1,000	\$36.840	\$12.350	\$3.500	\$3.850	\$1.050	\$0.390	\$57.980
3	N/A	1,000	\$39.680	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$70.470
4	N/A	1,000	\$42.510	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$73.300
5	N/A	1,000	\$45.340	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$76.130
6	N/A	1,000	\$51.010	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$81.800

K. FOOTNOTE(S)

Operating Engineers Group 13 through 25 apprentice wage rates are based on the applicable journeyman's wage rates for that group.

Pension: Includes an amount for Annuity.

Vacation & Holiday: Includes an amount for Supplemental Dues.

Other: Includes amounts for Industry Fund, Engineers Contract Compliance Committee (ECCC), Contract Administration Fund, and Southern California Partnership for Jobs Fund.

Rates above also apply to crafts:

Tunnel Operating Engineer

Crane, Pile Driver, and Hoisting Equipment Operating Engineer

JOURNEYMAN PREDETERMINED INCREASES:

7-1-2023: \$4.00 to be allocated to wages and/or fringes.

7-1-2024: \$4.00 to be allocated to wages and/or fringes.

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 06-30-2023 **
- **Craft/Classification:** Operating Engineer
- **Indentured/Other:** Special Shift
- **Shift:** 2
- **Counties:** Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, Ventura

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	N/A	1,000	\$35.010	\$12.350	\$3.500	\$3.850	\$1.050	\$0.390	\$56.150
2	N/A	1,000	\$37.840	\$12.350	\$3.500	\$3.850	\$1.050	\$0.390	\$58.980
3	N/A	1,000	\$40.680	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$71.470
4	N/A	1,000	\$43.510	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$74.300
5	N/A	1,000	\$46.340	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$77.130
6	N/A	1,000	\$52.010	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$82.800

L. FOOTNOTE(S)

Operating Engineers Group 13 through 25 apprentice wage rates are based on the applicable journeyman's wage rates for that group.

Pension: Includes an amount for Annuity.

Vacation & Holiday: Includes an amount for Supplemental Dues.

Other: Includes amounts for Industry Fund, Engineers Contract Compliance Committee (ECCC), Contract Administration Fund, and Southern California Partnership for Jobs Fund.

Rates above also apply to crafts:

Tunnel Operating Engineer

Crane, Pile Driver, and Hoisting Equipment Operating Engineer

JOURNEYMAN PREDETERMINED INCREASES:

7-1-2023: \$4.00 to be allocated to wages and/or fringes.

7-1-2024: \$4.00 to be allocated to wages and/or fringes.

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 06-30-2023 **
- **Craft/Classification:** Operating Engineer
- **Indentured/Other:** Multi-shift
- **Shift:** 3
- **Counties:** Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, Ventura

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	N/A	1,000	\$35.010	\$12.350	\$3.500	\$3.850	\$1.050	\$0.390	\$56.150
2	N/A	1,000	\$37.840	\$12.350	\$3.500	\$3.850	\$1.050	\$0.390	\$58.980
3	N/A	1,000	\$40.680	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$71.470
4	N/A	1,000	\$43.510	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$74.300
5	N/A	1,000	\$46.340	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$77.130
6	N/A	1,000	\$52.010	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$82.800

M. FOOTNOTE(S)

Operating Engineers Group 13 through 25 apprentice wage rates are based on the applicable journeyman's wage rates for that group.

Pension: Includes an amount for Annuity

Vacation & Holiday: Includes an amount for Supplemental Dues.

Other: Includes amounts for Industry Fund, Engineers Contract Compliance Committee (ECCC), Contract Administration Fund, and Southern California Partnership for Jobs Fund.

Rates above are for Multi-shift

Rates above also apply to crafts:

Tunnel Operating Engineer

Crane, Pile Driver, and Hoisting Equipment Operating Engineer

JOURNEYMAN PREDETERMINED INCREASES:

7-1-2023: \$4.00 to be allocated to wages and/or fringes.

7-1-2024: \$4.00 to be allocated to wages and/or fringes.

GENERAL PREVAILING WAGE APPRENTICE RATES – BUILDING CONSTRUCTION INSPECTOR/FIELD SOILS MATERIAL TESTER

Apprentice Prevailing Wage Rates are paid only to apprentices registered with the State of California, Division of Apprenticeship Standards, for work the registered apprentice performs in his/her specific craft or trade. You may check whether an Apprentice is registered at the [Division of Apprenticeship Standards Website](https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp) (<https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp>)

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 06-30-2023 **
- **Craft/Classification:** Building Construction Inspector
- **Indentured/Other:** Field Soils Material Tester
- **Shift:** 1
- **Counties:** Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, Ventura

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	N/A	1,000	\$33.880	\$12.350	\$3.500	\$3.850	\$1.050	\$0.390	\$55.020
2	N/A	1,000	\$36.700	\$12.350	\$3.500	\$3.850	\$1.050	\$0.390	\$57.840
3	N/A	1,000	\$39.520	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$70.310
4	N/A	1,000	\$42.350	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$73.140
5	N/A	1,000	\$45.170	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$75.960
6	N/A	1,000	\$50.810	\$12.350	\$13.150	\$3.850	\$1.050	\$0.390	\$81.600

N. FOOTNOTE(S)

Pension: Includes an amount for Annuity

Vacation and Holiday: Includes an amount for Supplemental Dues.

Other: Includes amounts for Industry Fund, Engineers Contract Compliance Committee (ECCC), Contract Administration Fund and Southern California Partnership for Jobs Fund.

JOURNEYMAN PREDETERMINED INCREASES:

7-1-2023: \$4.00 to be allocated to wages and/or fringes.

7-1-2024: \$4.00 to be allocated to wages and/or fringes.

GENERAL PREVAILING WAGE APPRENTICE RATES – PARKING AND HIGHWAY IMPROVEMENT (STRIPER-LABORER)

Apprentice Prevailing Wage Rates are paid only to apprentices registered with the State of California, Division of Apprenticeship Standards, for work the registered apprentice performs in his/her specific craft or trade. You may check whether an Apprentice is registered at the [Division of Apprenticeship Standards Website](https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp) (<https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp>)

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 06-30-2023 **
- **Craft/Classification:** Parking and Highway Improvement (Striper-Laborer)
- **Shift:** 1
- **Counties:** Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, Ventura

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	N/A	800	\$26.580	\$6.130	\$3.560	\$2.630	\$.550	\$.000	\$39.450
2	N/A	1,000	\$31.100	\$6.130	\$3.560	\$2.630	\$.550	\$.000	\$43.970
3	N/A	1,000	\$33.910	\$7.000	\$4.160	\$3.680	\$1.370	\$.500	\$50.620
4	N/A	1,000	\$36.170	\$7.000	\$4.160	\$3.680	\$1.370	\$.500	\$52.880

O. FOOTNOTE(S)

Apprentice Wage & Benefit Rates are calculated based on Group 3 Journeyman rates.

Vacation/Holiday - Includes amount for supplemental dues

Other - Includes amount for Center for Contract Compliance, Industry Fund, and Contract Administration Fund.

** Journeyman Predetermined Increases

Effective 7/1/2023, an increase of \$3.25 to be allocated to wages and/or fringes

Effective 7/1/2024, an increase of \$3.35 to be allocated to wages and/or fringes

Effective 7/1/2025, an increase of \$3.45 to be allocated to wages and/or fringes

GENERAL PREVAILING WAGE APPRENTICE RATES – BUILDING CONSTRUCTION INSPECTOR/FIELD SOILS MATERIAL TESTER

Apprentice Prevailing Wage Rates are paid only to apprentices registered with the State of California, Division of Apprenticeship Standards, for work the registered apprentice performs in his/her specific craft or trade. You may check whether an Apprentice is registered at the [Division of Apprenticeship Standards website](https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp) (<https://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp>)

- **Determination:** 2022-2
- **Issue Date:** 08-22-2022
- **Expire Date:** 06-30-2023 **
- **Craft/Classification:** Teamster
- **Counties:** Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, Ventura

Period	Duration Months	OJT Hours	Basic Hourly Rate	Health & Welfare	Pension	Vacation/Holiday	Training	Other	Total Hourly Rate
1	N/A	600	\$19.990	\$15.060	\$3.000	\$1.450	\$1.820	\$0.450	\$41.770
2	N/A	600	\$22.630	\$15.060	\$3.000	\$1.450	\$1.820	\$0.450	\$44.410
3	N/A	600	\$25.650	\$15.060	\$3.000	\$1.450	\$1.820	\$0.450	\$47.430
4	N/A	600	\$28.290	\$15.060	\$3.000	\$1.450	\$1.820	\$0.450	\$50.070
5	N/A	600	\$32.060	\$15.060	\$3.000	\$1.450	\$1.820	\$0.450	\$53.840
6	N/A	600	\$35.830	\$15.060	\$3.000	\$1.450	\$1.820	\$0.450	\$57.610

P. FOOTNOTE(S)

Vacation & Holiday - Includes Amount for Supplemental Dues.

Apprentice rates based on Group X Journeyman Rates.

** Journeyman Predetermined Increases

Effective July 1, 2023, there will be an increase of \$3.15 to be allocated to wages and/or employer payments.

Effective July 1, 2024, there will be an increase of \$3.30 to be allocated to wages and/or employer payments.

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NOT FOR BID

Federal Prevailing Wage Rates

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NOT FOR BID

David-Bacon Act WD#: CA20230026

General Decision Number: CA20230026, 02/10/2023

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

County: San Bernardino County in California

"BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	.Executive Order 14026 generally applies to the contract. .The contractor must pay all covered workers at least \$16.20 per hour for the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	.Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number

0
1
2
3

Publication Date

01/06/2023
01/13/2023
01/20/2023
02/10/2023

ASBE0005-002 07/04/2022

	Rates	Fringes
Asbestos Workers/Insulator (Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems).....	\$ 49.58	25.27
Fire Stop Technician (Application of Firestopping Materials for wall openings and penetrations in walls, floors, ceilings and curtain walls).....	\$ 32.09	19.66

ASBE0005-004 07/04/2022

	Rates	Fringes
Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not).....	\$ 23.52	13.37

BOIL0092-003 01/01/2021

	Rates	Fringes
BOILERMAKER.....	\$ 46.03	38.81

* BRCA0004-011 05/01/2020

	Rates	Fringes
BRICKLAYER; MARBLE SETTER.....	\$ 41.48	18.63

*The wage scale for prevailing wage projects performed in Blythe, China lake, Death Valley, Fort Irwin, Twenty-Nine Palms, Needles and 1-15 corridor (Barstow to the Nevada State Line) will be Three Dollars (\$3.00) above the standard San Bernardino/Riverside County hourly wage rate

BRCA0018-004 06/01/2022

	Rates	Fringes
MARBLE FINISHER.....	\$ 37.87	14.13
TILE FINISHER.....	\$ 32.44	12.54
TILE LAYER.....	\$ 45.05	18.33

BRCA0018-010 09/01/2022

	Rates	Fringes
TERRAZZO FINISHER.....	\$ 38.37	14.13
TERRAZZO WORKER/SETTER.....	\$ 46.49	14.66

CARP0213-001 07/01/2021

	Rates	Fringes
CARPENTER		
(1) Carpenter, Cabinet Installer, Insulation Installer, Hardwood Floor Worker and acoustical installer.....	\$ 51.60	16.28
(2) Millwright.....	\$ 52.10	16.48
(3) Piledrivermen/Derrick Bargeman, Bridge or Dock Carpenter, Heavy Framer, Rock Bargeman or Scowman, Rockslinger, Shingler (Commercial).....	\$ 51.73	16.28
(4) Pneumatic Nailer, Power Stapler.....	\$ 51.85	16.28
(5) Sawfiler.....	\$ 51.69	16.28
(6) Scaffold Builder	\$ 42.80	16.28
(7) Table Power Saw Operator.....	\$ 51.70	16.28

FOOTNOTE: Work of forming in the construction of open cut sewers or storm drains, on operations in which horizontal lagging is used in conjunction with steel H-Beams driven or placed in pre- drilled holes, for that portion of a lagged trench against which concrete is poured, namely, as a substitute for back forms (which work is performed by piledrivers): \$0.13 per hour additional.

CARP0213-002 07/01/2021

	Rates	Fringes
Diver		
(1) Wet.....	\$ 834.40	16.28
(2) Standby.....	\$ 445.84	16.28
(3) Tender.....	\$ 437.84	16.28
(4) Assistant Tender.....	\$ 413.84	16.28

Amounts in ""Rates' column are per day

CARP0213-004 07/01/2021

	Rates	Fringes
Drywall		
DRYWALL INSTALLER/LATHER.....	\$ 51.60	16.28
STOCKER/SCRAPPER.....	\$ 22.16	8.62

CARP0721-001 07/01/2021

	Rates	Fringes
Modular Furniture Installer.....	\$ 21.85	7.15

ELEC0440-004 12/27/2021

COMMUNICATIONS AND SYSTEMS WORK

	Rates	Fringes
Communications System		
Installer.....	\$ 39.60	3%+16.89
Technician.....	\$ 33.09	15.89

SCOPE OF WORK: Installation, testing, service and maintenance of systems utilizing the transmission and/or transference of voice, sound, vision and digital for commercial, educational, security and entertainment purposes for the following: TV monitoring and surveillance, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, nurse call systems, radio page, school intercom and sound, burglar alarms, fire alarms, and low voltage master clock systems in commercial buildings. Communication Systems that transmit or receive information and/or control systems that are intrinsic to the above listed systems; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding all other data systems or multiple systems which include control function or power supply; excluding installation of raceway systems, conduit systems, line voltage work, and energy management systems. Does not cover work performed at China Lake Naval Ordnance Test Station.

ELEC0477-002 06/01/2021

	Rates	Fringes
Electricians:.....	\$ 45.75	3%+25.33

CABLE SPLICER: \$1.50 per hour above Electrician rate.

TUNNEL WORK: 10% above Electrician rate.

ZONE PAY:

Zone A - 80 road miles from Post Office, 455 Orange Show Lane, San Bernardino, will be a free zone for all contractors

Zone B - Any work performed outside Zone A's 80 road miles, shall add \$12.00 per hour to the current wage scale.

ELEC1245-001 06/01/2022

	Rates	Fringes
LINE CONSTRUCTION		
(1) Lineman; Cable splicer.....	\$ 64.40	22.58
(2) Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes, trenchers, cranes (50 tons and below), overhead & underground distribution line equipment).....	\$ 50.00	21.30
(3) Groundman.....	\$ 38.23	20.89
(4) Powderman.....	\$ 51.87	18.79

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and day after Thanksgiving, Christmas Day

ELEV0018-001 01/01/2023

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 63.95	37.335+a+b

FOOTNOTE:

a. PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.

b. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

ENGI0012-003 07/01/2022

	Rates	Fringes
OPERATOR: Power Equipment (All Other Work)		
GROUP 1.....	\$ 51.90	30.70
GROUP 2.....	\$ 52.68	30.70
GROUP 3.....	\$ 52.97	30.70
GROUP 4.....	\$ 54.46	30.70
GROUP 5.....	\$ 48.96	25.25
GROUP 6.....	\$ 54.68	30.70
GROUP 8.....	\$ 54.79	30.70
GROUP 9.....	\$ 49.29	25.25
GROUP 10.....	\$ 54.91	30.70
GROUP 11.....	\$ 49.41	25.25
GROUP 12.....	\$ 55.08	30.70
GROUP 13.....	\$ 55.18	30.70
GROUP 14.....	\$ 55.21	30.70
GROUP 15.....	\$ 55.29	30.70
GROUP 16.....	\$ 55.41	30.70
GROUP 17.....	\$ 55.58	30.70
GROUP 18.....	\$ 55.68	30.70
GROUP 19.....	\$ 55.79	30.70
GROUP 20.....	\$ 55.91	30.70
GROUP 21.....	\$ 56.08	30.70
GROUP 22.....	\$ 56.18	30.70
GROUP 23.....	\$ 56.29	30.70
GROUP 24.....	\$ 56.41	30.70
GROUP 25.....	\$ 56.58	30.70

OPERATOR: Power Equipment (Cranes, Piledriving & Hoisting)

GROUP 1.....	\$ 53.25	30.70
GROUP 2.....	\$ 54.03	30.70
GROUP 3.....	\$ 54.32	30.70
GROUP 4.....	\$ 54.46	30.70
GROUP 5.....	\$ 54.68	30.70
GROUP 6.....	\$ 54.79	30.70
GROUP 7.....	\$ 54.91	30.70
GROUP 8.....	\$ 55.08	30.70
GROUP 9.....	\$ 55.25	30.70

GROUP 10.....	\$ 56.25	30.70
GROUP 11.....	\$ 57.25	30.70
GROUP 12.....	\$ 58.25	30.70
GROUP 13.....	\$ 59.25	30.70

OPERATOR: Power Equipment
(Tunnel Work)

GROUP 1.....	\$ 54.53	30.70
GROUP 2.....	\$ 54.82	30.70
GROUP 3.....	\$ 54.96	30.70
GROUP 4.....	\$ 55.18	30.70
GROUP 5.....	\$ 55.29	30.70
GROUP 6.....	\$ 55.41	30.70
GROUP 7.....	\$ 55.71	30.70

PREMIUM PAY:

\$3.75 per hour shall be paid on all Power Equipment Operator work on the following Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton

Workers required to suit up and work in a hazardous material environment: \$2.00 per hour additional.
Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.

SEE ZONE DEFINITIONS AFTER CLASSIFICATIONS

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bargeman; Brakeman; Compressor operator; Ditch Witch, with seat or similar type equipment; Elevator operator-inside; Engineer Oiler; Forklift operator (includes loed, lull or similar types under 5 tons; Generator operator; Generator, pump or compressor plant operator; Pump operator; Signalman; Switchman

GROUP 2: Asphalt-rubber plant operator (nurse tank operator); Concrete mixer operator-skip type; Conveyor operator; Fireman; Forklift operator (includes loed, lull or similar types over 5 tons; Hydrostatic pump operator; oiler crusher (asphalt or concrete plant); Petromat laydown machine; PJU side dum jack; Screening and conveyor machine operator (or similar types); Skiploader (wheel type up to 3/4 yd. without attachment); Tar pot fireman; Temporary heating plant operator; Trenching machine oiler

GROUP 3: Asphalt-rubber blend operator; Bobcat or similar type (Skid steer); Equipment greaser (rack); Ford Ferguson (with dragtype attachments); Helicopter radioman (ground); Stationary pipe wrapping and cleaning machine operator

GROUP 4: Asphalt plant fireman; Backhoe operator (mini-max or similar type); Boring machine operator; Boxman or mixerman (asphalt or concrete); Chip spreading machine operator; Concrete cleaning decontamination machine operator; Concrete Pump Operator (small portable); Drilling machine operator, small auger types (Texoma super economatic or similar types - Hughes 100 or 200 or similar types - drilling depth of 30' maximum); Equipment greaser (grease truck); Guard rail post driver operator; Highline cableway signalman; Hydra-hammer-aero stomper; Micro Tunneling (above ground tunnel); Power concrete curing machine operator; Power concrete saw operator; Power-driven jumbo form setter operator; Power sweeper operator; Rock Wheel Saw/Trencher; Roller operator (compacting); Screed operator (asphalt or concrete); Trenching machine operator (up to 6 ft.); Vacuum or much truck

GROUP 5: Equipment Greaser (Grease Truck/Multi Shift).

GROUP 6: Articulating material hauler; Asphalt plant engineer; Batch plant operator; Bit sharpener; Concrete joint machine operator (canal and similar type); Concrete planer operator; Dandy digger; Deck engine

operator; Derrickman (oilfield type); Drilling machine operator, bucket or auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum); Drilling machine operator; Hydrographic seeder machine operator (straw, pulp or seed), Jackson track maintainer, or similar type; Kalamazoo Switch tamper, or similar type; Machine tool operator; Maginnis internal full slab vibrator, Mechanical berm, curb or gutter (concrete or asphalt); Mechanical finisher operator (concrete, Clary-Johnson-Bidwell or similar); Micro tunnel system (below ground); Pavement breaker operator (truck mounted); Road oil mixing machine operator; Roller operator (asphalt or finish), rubber-tired earth moving equipment (single engine, up to and including 25 yds. struck); Self-propelled tar pipelining machine operator; Skiploader operator (crawler and wheel type, over 3/4 yd. and up to and including 1-1/2 yds.); Slip form pump operator (power riven hydraulic lifting device for concrete forms); Tractor operator-bulldozer, tamper-scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types); Tugger hoist operator (1 drum); Ultra high pressure waterjet cutting tool system operator; Vacuum blasting machine operator

GROUP 8: Asphalt or concrete spreading operator (tamping or finishing); Asphalt paving machine operator (Barber Greene or similar type); Asphalt-rubber distribution operator; Backhoe operator (up to and including 3/4 yd.), small ford, Case or similar; Cast-in-place pipe laying machine operator; Combination mixer and compressor operator (gunite work); Compactor operator (self-propelled); Concrete mixer operator (paving); Crushing plant operator; Drill Doctor; Drilling machine operator, Bucket or auger types (Calweld 150 bucket or similar types - Watson 1500, 2000 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum); Elevating grader operator; Grade checker; Gradall operator; Grouting machine operator; Heavy-duty repairman; Heavy equipment robotics operator; Kalamazoo balliste regulator or similar type; Kolman belt loader and similar type; Le Tourneau blob compactor or similar type; Loader operator (Athey, Euclid, Sierra and similar types); Mobark Chipper or similar; Ozzie padder or similar types; P.C. slot saw; Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pumpcrete gun operator; Rock Drill or similar types; Rotary drill operator (excluding caisson type); Rubber-tired earth-moving equipment operator (single engine, caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator (multiple engine up to and including 25 yds. struck); Rubber-tired scraper operator (self-loading paddle wheel type-John Deere, 1040 and similar single unit); Self-propelled curb and gutter machine operator; Shuttle buggy; Skiploader operator (crawler and wheel type over 1-1/2 yds. up to and including 6-1/2 yds.); Soil remediation plant operator; Surface heaters and planer operator; Tractor compressor drill combination operator; Tractor operator (any type larger than D-5 - 100 flywheel h.p. and over, or similar-bulldozer, tamper, scraper and push tractor single engine); Tractor operator (boom attachments), Traveling pipe wrapping, cleaning and bending machine operator; Trenching machine operator (over 6 ft. depth capacity, manufacturer's rating); trenching Machine with Road Miner attachment (over 6 ft depth capacity); Ultra high pressure waterjet cutting tool system mechanic; Water pull (compaction) operator

GROUP 9: Heavy Duty Repairman

GROUP 10: Drilling machine operator, Bucket or auger types (Calweld 200 B bucket or similar types-Watson 3000 or 5000 auger or similar types-Texoma 900 auger or similar types-drilling depth of 105' maximum); Dual drum mixer, dynamic compactor LDC350 (or similar types); Monorail locomotive operator (diesel, gas or electric); Motor patrol-blade operator (single engine); Multiple engine tractor operator (Euclid and similar type-except Quad 9 cat.); Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Pneumatic pipe ramming tool and similar types; Prestressed wrapping machine operator; Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Rubber tired earth moving equipment operator (multiple engine, Euclid, caterpillar and similar over 25 yds. and up to 50 yds. struck), Tower crane repairman; Tractor loader operator (crawler and wheel type over 6-1/2 yds.); Woods mixer operator (and similar Pugmill equipment)

GROUP 11: Heavy Duty Repairman - Welder Combination, Welder - Certified.

GROUP 12: Auto grader operator; Automatic slip form operator; Drilling machine operator, bucket or auger types (Calweld, auger 200 CA or similar types - Watson, auger 6000 or similar types - Hughes Super Duty, auger 200 or similar types - drilling depth of 175' maximum); Hoe ram or similar with compressor; Mass

excavator operator less than 750 cu. yards; Mechanical finishing machine operator; Mobile form traveler operator; Motor patrol operator (multi-engine); Pipe mobile machine operator; Rubber-tired earth-moving equipment operator (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck); Rubber-tired self-loading scraper operator (paddle-wheel-auger type self-loading - two (2) or more units)

GROUP 13: Rubber-tired earth-moving equipment operator operating equipment with push-pull system (single engine, up to and including 25 yds. struck)

GROUP 14: Canal liner operator; Canal trimmer operator; Remote-control earth-moving equipment operator (operating a second piece of equipment: \$1.00 per hour additional); Wheel excavator operator (over 750 cu. yds.)

GROUP 15: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine-up to and including 25 yds. struck)

GROUP 16: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 17: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 50 cu. yds. struck); Tandem tractor operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 18: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

GROUP 19: Rotex concrete belt operator (or similar types); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, up to and including 25 yds. struck)

GROUP 20: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 21: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

GROUP 22: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, up to and including 25 yds. struck)

GROUP 23: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. And up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating with the tandem push-pull system (multiple engine, up to and including 25 yds. struck)

GROUP 24: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating

equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 25: Concrete pump operator-truck mounted; Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

CRANES, PILEDRIVING AND HOISTING EQUIPMENT CLASSIFICATIONS

GROUP 1: Engineer oiler; Fork lift operator (includes loed, lull or similar types)

GROUP 2: Truck crane oiler

GROUP 3: A-frame or winch truck operator; Ross carrier operator (jobsite)

GROUP 4: Bridge-type unloader and turntable operator; Helicopter hoist operator

GROUP 5: Hydraulic boom truck; Stinger crane (Austin-Western or similar type); Tugger hoist operator (1 drum)

GROUP 6: Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist and/or manlift operator; Polar gantry crane operator; Self Climbing scaffold (or similar type); Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator

GROUP 7: Pedestal crane operator; Shovel, backhoe, dragline, clamshell operator (over 5 cu. yds. mrc); Tower crane repair; Tugger hoist operator (3 drum)

GROUP 8: Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity); Shovel, backhoe, dragline, clamshell operator (over 7 cu. yds., M.R.C.)

GROUP 9: Crane operator (over 25 tons and up to and including 50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator; Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator; Self erecting tower crane operator maximum lifting capacity ten tons

GROUP 10: Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.); Tower crane operator and tower gantry

GROUP 11: Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc)

GROUP 12: Crane operator (over 200 tons up to and including 300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc)

GROUP 13: Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons)

TUNNEL CLASSIFICATIONS

GROUP 1: Skiploader (wheel type up to 3/4 yd. without attachment)

GROUP 2: Power-driven jumbo form setter operator

GROUP 3: Dinkey locomotive or motorperson (up to and including 10 tons)

GROUP 4: Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons)

GROUP 5: Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons)

GROUP 6: Heavy Duty Repairman

GROUP 7: Tunnel mole boring machine operator

ENGINEERS ZONES

\$1.00 additional per hour for all of IMPERIAL County and the portions of KERN, RIVERSIDE & SAN BERNARDINO Counties as defined below:

That area within the following Boundary: Begin in San Bernardino County, approximately 3 miles NE of the intersection of I-15 and the California State line at that point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Continue W in a straight line to that point which is the SW corner of the northwest quarter of Section 6, T27S, R42E, Mt. Diablo Meridian. Continue North to the intersection with the Inyo County Boundary at that point which is the NE corner of the western half of the northern quarter of Section 6, T25S, R42E, MDM. Continue W along the Inyo and San Bernardino County boundary until the intersection with Kern County, as that point which is the SE corner of Section 34, T24S, R40E, MDM. Continue W along the Inyo and Kern County boundary until the intersection with Tulare County, at that point which is the SW corner of the SE quarter of Section 32, T24S, R37E, MDM. Continue W along the Kern and Tulare County boundary, until that point which is the NW corner of T25S, R32E, MDM. Continue S following R32E lines to the NW corner of T31S, R32E, MDM. Continue W to the NW corner of T31S, R31E, MDM. Continue S to the SW corner of T32S, R31E, MDM. Continue W to SW corner of SE quarter of Section 34, T32S, R30E, MDM. Continue S to SW corner of T11N, R17W, SBM. Continue E along south boundary of T11N, SBM to SW corner of T11N, R7W, SBM. Continue S to SW corner of T9N, R7W, SBM. Continue E along south boundary of T9N, SBM to SW corner of T9N, R1E, SBM. Continue S along west boundary of R1E, SBM to Riverside County line at the SW corner of T1S, R1E, SBM. Continue E along south boundary of T1S, SBM (Riverside County Line) to SW corner of T1S, R10E, SBM. Continue S along west boundary of R10E, SBM to Imperial County line at the SW corner of T8S, R10E, SBM. Continue W along Imperial and Riverside county line to NW corner of T9S, R9E, SBM. Continue S along the boundary between Imperial and San Diego Counties, along the west edge of R9E, SBM to the south boundary of Imperial County/California state line. Follow the California state line west to Arizona state line, then north to Nevada state line, then continuing NW back to start at the point which is the NW corner of Section 1, T17N, R14E, SBM

\$1.00 additional per hour for portions of SAN LUIS OBISPO, KERN, SANTA BARBARA & VENTURA as defined below:

That area within the following Boundary: Begin approximately 5 miles north of the community of Cholame, on the Monterey County and San Luis Obispo County boundary at the NW corner of T25S, R16E, Mt. Diablo Meridian. Continue south along the west side of R16E to the SW corner of T30S, R16E, MDM. Continue E to SW corner of T30S, R17E, MDM. Continue S to SW corner of T31S, R17E, MDM. Continue E to SW corner of T31S, R18E, MDM. Continue S along West side of R18E, MDM as it crosses into San Bernardino Meridian numbering area and becomes R30W. Follow the west side of R30W, SBM to the SW corner of T9N, R30W, SBM. Continue E along the south edge of T9N, SBM to the Santa Barbara County and Ventura County boundary at that point which is the SW corner of Section 34. T9N, R24W, SBM, continue S along the Ventura County line to that point which is the SW corner of the SE quarter of Section 32, T7N, R24W, SBM. Continue E along the south edge of T7N, SBM to the SE corner to T7N, R21W, SBM. Continue N along East side of R21W, SBM to Ventura County and Kern County boundary at the NE corner of T8N, R21W. Continue W along the Ventura County and Kern County boundary to the SE corner of T9N, R21W. Continue North along the East edge of R21W, SBM to the NE corner of T12N, R21W, SBM. Continue West along the north edge of T12N, SBM to the SE corner of T32S, R21E, MDM. [T12N SBM is a thin strip between T11N SBM and T32S MDM]. Continue North along the East side of R21E, MDM to the Kings County and Kern County border at the NE corner of T25S, R21E, MDM, continue West along the Kings County and Kern County Boundary until the intersection of San Luis Obispo County. Continue west along the Kings County and San Luis Obispo County boundary until the intersection with Monterey County. Continue West along the Monterey County and San Luis Obispo County boundary to the beginning point at the NW corner of T25S, R16E, MDM.

\$2.00 additional per hour for INYO and MONO Counties and the Northern portion of SAN BERNARDINO County as defined below:

That area within the following Boundary: Begin at the intersection of the northern boundary of Mono County and the California state line at the point which is the center of Section 17, T10N, R22E, Mt. Diablo Meridian. Continue S then SE along the entire western boundary of Mono County, until it reaches Inyo County at the point which is the NE corner of the Western half of the NW quarter of Section 2, T8S, R29E, MDM. Continue SSE along the entire western boundary of Inyo County, until the intersection with Kern County at the point which is the SW corner of the SE 1/4 of Section 32, T24S, R37E, MDM. Continue E along the Inyo and Kern County boundary until the intersection with San Bernardino County at that point which is the SE corner of section 34, T24S, R40E, MDM. Continue E along the Inyo and San Bernardino County boundary until the point which is the NE corner of the Western half of the NW quarter of Section 6, T25S, R42E, MDM. Continue S to that point which is the SW corner of the NW quarter of Section 6, T27S, R42E, MDM. Continue E in a straight line to the California and Nevada state border at the point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Then continue NW along the state line to the starting point, which is the center of Section 18, T10N, R22E, MDM.

REMAINING AREA NOT DEFINED ABOVE RECEIVES BASE RATE

 ENGI0012-004 08/01/2022

	Rates	Fringes
OPERATOR: Power Equipment (DREDGING)		
(1) Leverman.....	\$ 61.60	32.50
(2) Dredge dozer.....	\$ 55.63	32.50
(3) Deckmate.....	\$ 55.52	32.50
(4) Winch operator (stern winch on dredge).....	\$ 54.97	32.50
(5) Fireman-Oiler, Deckhand, Bargeman, Leveehand.....	\$ 54.43	32.50
(6) Barge Mate.....	\$ 55.04	32.50

IRON0433-006 01/01/2023

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 41.28	25.66
Ornamental, Reinforcing and Structural.....	\$ 46.20	34.30

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland, Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Seale, Vandenberg AFB

\$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

\$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

LABO0300-005 08/01/2022

	Rates	Fringes
Asbestos Removal Laborer.....	\$ 39.23	23.28

SCOPE OF WORK: Includes site mobilization, initial site cleanup, site preparation, removal of asbestos-containing material and toxic waste, encapsulation, enclosure and disposal of asbestos-containing materials and toxic waste by hand or with equipment or machinery; scaffolding, fabrication of temporary wooden barriers and assembly of decontamination stations.

LABO0345-001 07/01/2022

	Rates	Fringes
LABORER (GUNITE)		
GROUP 1.....	\$ 48.50	21.37
GROUP 2.....	\$ 47.55	21.37
GROUP 3.....	\$ 44.01	21.37

FOOTNOTE: GUNITE PREMIUM PAY: Workers working from a Bosn'n's Chair or suspended from a rope or cable shall receive 40 cents per hour above the foregoing applicable classification rates. Workers doing gunite and/or shotcrete work in a tunnel shall receive 35 cents per hour above the foregoing applicable classification rates, paid on a portal-to-portal basis. Any work performed on, in or above any smoke stack, silo, storage elevator or similar type of structure, when such structure is in excess of 75'-0" above base level and which work must be performed in whole or in part more than 75'-0" above base level, that work

performed above the 75'-0"" level shall be compensated for at 35 cents per hour above the applicable classification wage rate.

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Rodmen, Nozzlemen

GROUP 2: Gunmen

GROUP 3: Reboundmen

LABO0783-002 07/01/2022

	Rates	Fringes
LABORER (TUNNEL)		
GROUP 1.....	\$ 45.68	23.30
GROUP 2.....	\$ 46.00	23.30
GROUP 3.....	\$ 46.46	23.30
GROUP 4.....	\$ 47.15	23.30
LABORER		
GROUP 1.....	\$ 36.39	21.04
GROUP 2.....	\$ 36.94	21.04
GROUP 3.....	\$ 37.49	21.04
GROUP 4.....	\$ 39.04	21.04
GROUP 5.....	\$ 39.39	21.04

LABORER CLASSIFICATIONS

GROUP 1: Cleaning and handling of panel forms; Concrete screeding for rough strike-off; Concrete, water curing; Demolition laborer, the cleaning of brick if performed by a worker performing any other phase of demolition work, and the cleaning of lumber; Fire watcher, limber, brush loader, piler and debris handler; Flag person; Gas, oil and/or water pipeline laborer; Laborer, asphalt-rubber material loader; Laborer, general or construction; Laborer, general clean-up; Laborer, landscaping; Laborer, jetting; Laborer, temporary water and air lines; Material hose operator (walls, slabs, floors and decks); Plugging, filling of shee bolt holes; Dry packing of concrete; Railroad maintenance, repair track person and road beds; Streetcar and railroad construction track laborers; Rigging and signaling; Scaler; Slip form raiser; Tar and mortar; Tool crib or tool house laborer; Traffic control by any method; Window cleaner; Wire mesh pulling - all concrete pouring operations

GROUP 2: Asphalt shoveler; Cement dumper (on 1 yd. or larger mixer and handling bulk cement); Cesspool digger and installer; Chucktender; Chute handler, pouring concrete, the handling of the chute from readymix trucks, such as walls, slabs, decks, floors, foundation, footings, curbs, gutters and sidewalks; Concrete curer, impervious membrane and form oiler; Cutting torch operator (demolition); Fine grader, highways and street paving, airport, runways and similar type heavy construction; Gas, oil and/or water pipeline wrapper - pot tender and form person; Guinea chaser; Headerboard person - asphalt; Laborer, packing rod steel and pans; Membrane vapor barrier installer; Power broom sweeper (small); Riprap stonepaver, placing stone or wet sacked concrete; Roto scraper and tiller; Sandblaster (pot tender); Septic tank digger and installer(lead); Tank scaler and cleaner; Tree climber, faller, chain saw operator, Pittsburgh chipper and similar type brush shredder; Underground laborer, including caisson bellow

GROUP 3: Buggymobile person; Concrete cutting torch; Concrete pile cutter; Driller, jackhammer, 2-1/2 ft. drill steel or longer; Dri-pak-it machine; Gas, oil and/or water pipeline wrapper, 6-in. pipe and over, by any method, inside and out; High scaler (including drilling of same); Hydro seeder and similar type; Impact wrench multi-plate; Kettle person, pot person and workers applying asphalt, lay-kold, creosote, lime caustic

and similar type materials ("applying" means applying, dipping, brushing or handling of such materials for pipe wrapping and waterproofing); Operator of pneumatic, gas, electric tools, vibrating machine, pavement breaker, air blasting, come-alongs, and similar mechanical tools not separately classified herein; Pipelayer's backup person, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services; Rock slinger; Rotary scarifier or multiple head concrete chipping scarifier; Steel headerboard and guideline setter; Tamper, Barko, Wacker and similar type; Trenching machine, hand-propelled

GROUP 4: Asphalt raker, lute person, ironer, asphalt dump person, and asphalt spreader boxes (all types); Concrete core cutter (walls, floors or ceilings), grinder or sander; Concrete saw person, cutting walls or flat work, scoring old or new concrete; Cribber, shorer, lagging, sheeting and trench bracing, hand-guided lagging hammer; Head rock slinger; Laborer, asphalt- rubber distributor boot person; Laser beam in connection with laborers' work; Oversize concrete vibrator operator, 70 lbs. and over; Pipelayer performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, metallic or non-metallic, conduit and any other stationary type of tubular device used for the conveying of any substance or element, whether water, sewage, solid gas, air, or other product whatsoever and without regard to the nature of material from which the tubular material is fabricated; No-joint pipe and stripping of same; Prefabricated manhole installer; Sandblaster (nozzle person), water blasting, Porta Shot-Blast

GROUP 5: Blaster powder, all work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing; Driller: All power drills, excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and any and all other types of mechanical drills without regard to the form of motive power; Toxic waste removal

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Batch plant laborer; Changehouse person; Dump person; Dump person (outside); Swamper (brake person and switch person on tunnel work); Tunnel materials handling person; Nipper; Pot tender, using mastic or other materials (for example, but not by way of limitation, shotcrete, etc.)

GROUP 2: Chucktender, cabletender; Loading and unloading agitator cars; Vibrator person, jack hammer, pneumatic tools (except driller); Bull gang mucker, track person; Concrete crew, including rodder and spreader

GROUP 3: Blaster, driller, powder person; Chemical grout jet person; Cherry picker person; Grout gun person; Grout mixer person; Grout pump person; Jackleg miner; Jumbo person; Kemper and other pneumatic concrete placer operator; Miner, tunnel (hand or machine); Nozzle person; Operating of troweling and/or grouting machines; Powder person (primer house); Primer person; Sandblaster; Shotcrete person; Steel form raiser and setter; Timber person, retimber person, wood or steel; Tunnel Concrete finisher

GROUP 4: Diamond driller; Sandblaster; Shaft and raise work

LABO0783-005 07/01/2022

	Rates	Fringes
Brick Tender.....	\$ 37.32	21.45

LABO1184-001 07/01/2022

	Rates	Fringes
Laborers: (HORIZONTAL DIRECTIONAL DRILLING)		
(1) Drilling Crew Laborer.....	\$ 40.69	18.25
(2) Vehicle Operator/Hauler.....	\$ 40.86	18.25
(3) Horizontal Directional Drill Operator.....	\$ 42.71	18.25
(4) Electronic Tracking Locator.....	\$ 44.71	18.25
Laborers: (STRIPING/SLURRY SEAL)		
GROUP 1.....	\$ 41.90	21.32
GROUP 2.....	\$ 43.20	21.32
GROUP 3.....	\$ 45.21	21.32
GROUP 4.....	\$ 46.95	21.32

LABORERS - STRIPING CLASSIFICATIONS

GROUP 1: Protective coating, pavement sealing, including repair and filling of cracks by any method on any surface in parking lots, game courts and playgrounds; carstops; operation of all related machinery and equipment; equipment repair technician

GROUP 2: Traffic surface abrasive blaster; pot tender - removal of all traffic lines and markings by any method (sandblasting, waterblasting, grinding, etc.) and preparation of surface for coatings. Traffic control person: controlling and directing traffic through both conventional and moving lane closures; operation of all related machinery and equipment

GROUP 3: Traffic delineating device applicator: Layout and application of pavement markers, delineating signs, rumble and traffic bars, adhesives, guide markers, other traffic delineating devices including traffic control. This category includes all traffic related surface preparation (sandblasting, waterblasting, grinding) as part of the application process. Traffic protective delineating system installer: removes, relocates, installs, permanently affixed roadside and parking delineation barricades, fencing, cable anchor, guard rail, reference signs, monument markers; operation of all related machinery and equipment; power broom sweeper

GROUP 4: Striper: layout and application of traffic stripes and markings; hot thermo plastic; tape traffic stripes and markings, including traffic control; operation of all related machinery and equipment

LABO1414-003 08/03/2022

	Rates	Fringes
LABORER		
PLASTER CLEAN-UP LABORER.....	\$ 38.92	23.32
PLASTER TENDER.....	\$ 41.47	23.32

Work on a swing stage scaffold: \$1.00 per hour additional.

Work at Military Bases - \$3.00 additional per hour: Coronado Naval Amphibious Base, Fort Irwin, Marine Corps Air Station-29 Palms, Imperial Beach Naval Air Station, Marine Corps Logistics Supply Base, Marine Corps Pickle Meadows, Mountain Warfare Training Center, Naval Air Facility-Seeley, North Island Naval Air Station, Vandenberg AFB.

PAIN0036-001 07/01/2020

	Rates	Fringes
Painters: (Including Lead Abatement)		
(1) Repaint (excludes San Diego County).....	\$ 29.59	17.12
(2) All Other Work.....	\$ 33.12	17.24

REPAINT of any previously painted structure. Exceptions: work involving the aerospace industry, breweries, commercial recreational facilities, hotels which operate commercial establishments as part of hotel service, and sports facilities.

PAIN0036-008 09/01/2022

	Rates	Fringes
DRYWALL FINISHER/TAPER.....	\$ 46.28	23.52

PAIN0036-015 01/01/2020

	Rates	Fringes
GLAZIER.....	\$ 43.45	23.39

FOOTNOTE: Additional \$1.25 per hour for work in a condor, from the third (3rd) floor and up Additional \$1.25 per hour for work on the outside of the building from a swing stage or any suspended contrivance, from the ground up

PAIN1247-002 08/01/2022

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 39.95	15.28

PLAS0200-008 08/03/2022

	Rates	Fringes
PLASTERER.....	\$ 47.37	19.64

FORT IRWIN; MARINE CORPS AIR STATION 29 PALMS, AND MARINE CORPS LOGISTICS SUPPLY BASE: \$3.00 additional per hour.

PLAS0500-002 07/01/2020

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER.....	\$ 38.50	25.91

PLUM0016-002 09/01/2022

	Rates	Fringes
PLUMBER, PIPEFITTER, STEAMFITTER		
Work at Edwards AFB.....	\$ 62.18	26.26
Work at Fort Irwin Army Base.....	\$ 65.68	26.26
Work at Marine Corps Logistic Base at Nebo, Marine Corps Logistic Base at Yermo and Twenty-Nine Palms Marine Base.....	\$ 62.18	26.26
Work ONLY on new additions and remodeling of bars, restaurants, stores and commercial buildings, not to to exceed 5,000 sq. ft. of floor space.....	\$ 53.51	25.28
Work ONLY on strip malls, light commercial, tenant improvement and remodel work.....	\$40.95	23.61
All other work except work on new additions and remodeling of bars, restaurant, stores and commercial buildings not to exceed 5,000 sq. ft. of floor space and work on strip malls, light commercial, tenant improvement and remodel work.....	\$ 55.18	26.26

PLUM0345-001 09/01/2022

	Rates	Fringes
PLUMBER		
Landscape/Irrigation Fitter.....	\$ 38.20	25.65
Sewer & Storm Drain Work.....	\$ 42.29	23.03

ROOF0036-002 08/01/2022

	Rates	Fringes
ROOFER.....	\$ 43.47	19.52

FOOTNOTE: Pitch premium: Work on which employees are exposed to pitch fumes or required to handle pitch, pitch base or pitch impregnated products, or any material containing coal tar pitch, the entire roofing crew shall receive \$1.75 per hour "pitch premium" pay.

SFCA0669-009 01/01/2023

Does not include the northern part of the City of Chino, or the Cities of Montclair and Ontario

	Rates	Fringes
SPRINKLER FITTER.....	\$ 43.25	27.33

SFCA0709-004 01/01/2021

THE NORTHERN PART OF THE CITY OF CHINO, AND THE CITIES OF MONTCLAIR AND ONTARIO:

	Rates	Fringes
SPRINKLER FITTER (Fire).....	\$ 48.71	29.15

SHEE0105-003 01/01/2023		

LOS ANGELES (South of a straight line drawn between Gorman and Big Pines) and Catalina Island, INYO, KERN (Northeast part, East of Hwy 395), MONO ORANGE, RIVERSIDE, AND SAN BERNARDINO COUNTIES

	Rates	Fringes
SHEET METAL WORKER		
(1) Commercial - New Construction and Remodel work.....	\$ 53.67	29.74
(2) Industrial work including air pollution control systems, noise abatement, handrails, guard rails, excluding architectural sheet metal work, excluding A-C, heating, ventilating systems for human comfort.....	\$ 53.67	29.74

* TEAM0011-002 07/01/2022		

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 36.19	32.54
GROUP 2.....	\$ 36.34	32.54
GROUP 3.....	\$ 36.47	32.54
GROUP 4.....	\$ 36.66	32.54
GROUP 5.....	\$ 36.69	32.54
GROUP 6.....	\$ 36.72	32.54
GROUP 7.....	\$ 36.97	32.54
GROUP 8.....	\$ 37.22	32.54
GROUP 9.....	\$ 37.42	32.54
GROUP 10.....	\$ 37.72	32.54
GROUP 11.....	\$ 38.22	32.54
GROUP 12.....	\$ 38.65	32.54

WORK ON ALL MILITARY BASES:

PREMIUM PAY: \$3.00 per hour additional. [29 palms Marine Base, Camp Roberts, China Lake, Edwards AFB, El Centro Naval Facility, Fort Irwin, Marine Corps Logistics Base at Nebo & Yermo, Mountain Warfare Training Center, Bridgeport, Point Arguello, Point Conception, Vandenberg AFB]

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Truck driver

GROUP 2: Driver of vehicle or combination of vehicles – 2 axles; Traffic control pilot car excluding moving heavy equipment permit load; Truck mounted broom GROUP 3: Driver of vehicle or combination of vehicles – 3 axles; Boot person; Cement mason distribution truck; Fuel truck driver; Water truck - 2 axle; Dump truck, less than 16 yds. water level; Erosion control driver

GROUP 4: Driver of transit mix truck, under 3 yds.; Dumpcrete truck, less than 6-1/2 yds. water level

GROUP 5: Water truck, 3 or more axles; Truck greaser and tire person (\$0.50 additional for tire person); Pipeline and utility working truck driver, including winch truck and plastic fusion, limited to pipeline and utility work; Slurry truck driver

GROUP 6: Transit mix truck, 3 yds. or more; Dumpcrete truck, 6-1/2 yds. water level and over; Vehicle or combination of vehicles - 4 or more axles; Oil spreader truck; Dump truck, 16 yds. to 25 yds. water level

GROUP 7: A Frame, Swedish crane or similar; Forklift driver; Ross carrier driver

GROUP 8: Dump truck, 25 yds. to 49 yds. water level; Truck repair person; Water pull - single engine; Welder

GROUP 9: Truck repair person/welder; Low bed driver, 9 axles or over

GROUP 10: Dump truck - 50 yds. or more water level; Water pull - single engine with attachment

GROUP 11: Water pull - twin engine; Water pull - twin engine with attachments; Winch truck driver - \$1.25 additional when operating winch or similar special attachments

GROUP 12: Boom Truck 17K and above

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

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NOT FOR BID

APPENDIX

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NOT FOR BID

Construction Safety and Phasing Plan (CSPP)

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NOT FOR BID

CHINO AIRPORT



Airports

CONSTRUCTION SAFETY AND PHASING PLAN

for

***REILs for Runway 3-21, 8L-26R, and 8R-26L
and Vault Upgrade***

Prepared by



www.meadhunt.com

2023

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NOT FOR BID

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SUPPLEMENTS

SUPPLEMENT 1: SAFETY PLAN COMPLIANCE DOCUMENT REQUIREMENTS AND SAMPLE FORM

SUPPLEMENT 2: CONSTRUCTION PROJECT DAILY SAFETY INSPECTION CHECKLIST

SUPPLEMENT 3: WORK AREA PLAN SHEETS

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1. OVERVIEW

This document represents the Construction Safety and Phasing Plan (CSPP) for the Runway 3-21, Runway 8L-26R, and Runway 8R-26L REILs Project (Project) at Chino Airport (Airport) being performed under a Federal Aviation Administration (FAA) Airport Improvement Program (AIP) Grant Program. The Airport anticipates authorizing onsite work to commence in the fourth quarter of 2023, pending execution and approval of the grant documents by the FAA. Completion of the Project is scheduled approximately 66 calendar days after issuance of the Construction Notice-to-Proceed.

The objective of this CSPP is to provide a general outline of the construction safety and phasing provisions for working in or near the Air Operations Area (AOA) contained in the bid documents (Project Plans and Specifications), and to explain how those provisions will be implemented during construction.

2. PURPOSE

This CSPP provides single source procedural information for all key Project personnel to use during construction. This CSPP defines the specific responsibilities of the Airport Operator, the Contractor, Airport tenants, and the Project Engineer. This CSPP includes the FAA's Safety/Phasing Plan checklist that was utilized in preparing the construction documents, provisions for Airport safety and security, operational limitations on construction activities, identification of potential hazards and the impact those hazards may have on airfield and construction activities, and construction phasing requirements to minimize impact on airfield operations.

Requirements for maintaining operational safety during construction are in conformance with FAA Advisory Circular (AC) 150/5370-2G, "Operational Safety on Airports During Construction." The Project specific safety and phasing provisions for the Project elements are shown on the Plans.

3. CONSTRUCTION SAFETY AND PHASING RESPONSIBILITIES

A. AIRPORT OPERATOR

The Airport Operator is responsible for operational safety on the Airport at all times. The County of San Bernardino Department of Airports is the Airport Operator. The Operator will issue Notice to Air Missions (NOTAMS) whenever construction activities occur in the AOA. The Operator will provide oversight of all construction activities and coordinate those activities with the Airport users (pilots) and Airport tenants. The Operator will hold weekly construction progress and safety meetings. During those meetings, operational safety will be reviewed, and an action plan will be developed as needed to address any discrepancies in safety that need to be corrected. The Operator will require and approve a Safety Plan Compliance Document (SPCD) from the Contractor prior to the Notice to Proceed. The SPCD outline is attached to this report as *Supplement 1*.

B. CONSTRUCTION CONTRACTOR

The Contractor will be determined by a competitive bidding process. The Contractor's responsibilities for safety and phasing are detailed and defined in the Project Contract Documents. The Contractor will be required to attend weekly progress and safety meetings and to correct any discrepancies. The

Contractor is required to submit a completed SPCD to the Operator for approval prior to the Notice to Proceed.

C. AIRPORT TENANTS

The Operator will notify Airport tenants of all pending construction activities that impact them and advise the tenants of planned pavement closures and other activities in the AOA that will affect aircraft operations. Tenants will be invited to attend weekly construction progress and safety meetings when appropriate.

D. PROJECT ENGINEER

As part of the Project Construction Administration Team (CA Team), and part of the Inspection and Quality Assurance processes, the Project Engineer will monitor construction safety on a daily basis, utilizing the "Construction Project Daily Safety Inspection Checklist" (see *Supplement 2*). Any discrepancies in safety will be immediately brought to the Contractor's and Operator's attention for corrective action implementation.

4. COORDINATION

A. DESIGN PROGRESS MEETINGS

Safety Phasing conferences were held during the design development phases. These meetings were held to help avoid possible conflicts between construction activities and the operation of the Airport.

B. PRE-BID CONFERENCE

A pre-bid conference will be held to help clarify and explain construction methods, procedures and safety measures required by the contract. The pre-bid conference will be held a minimum of ten (10) days prior to the bid opening date.

C. PRE-CONSTRUCTION CONFERENCE

A Pre-Construction Conference will be held as soon as practicable after the contract has been awarded, and before issuance of the Notice to Proceed. The Pre-Construction Conference participants should include, but not be limited to: the Operator, CA Team, Project Engineer, Airport management and operations personnel, testing laboratory representative, Contactor and subcontractor(s), Contractor's Project superintendent, Contractor's Project clerk, Airport users, utility companies, Airport Rescue and Fire Fighting (ARFF) personnel, federal agency, state and/or local agencies affected by the proposed construction, and an FAA representative.

D. CONTRACTOR PROGRESS MEETINGS

Contractor progress meetings will be held weekly for the duration of construction. Operational safety will be a standing agenda item for discussion during progress meetings throughout the Project. Date, time, and location of the progress meetings will be determined at the Pre-Construction Meeting.

Contractor shall update the master Project schedule weekly or as required due to significant schedule changes, should they occur. For the weekly coordination meetings, Contractor shall provide a detailed weekly lookahead schedule and a three-week lookahead schedule. The one-week lookahead schedule shall include all items that require coordination with County staff, such as area and shutdown requests.

E. SCOPE OR SCHEDULE CHANGES

Any changes to the Project may necessitate revisions to the CSPP and may require review and approval by the Operator and the FAA.

F. FAA AIR TRAFFIC ORGANIZATION (ATO) COORDINATION

The Airport has one Air Traffic Control Tower (ATCT). The Airport currently has the following facilities: REILs (Runway 3 and Runway 21), PAPIs on every runway end, FAA-owned Glide Slope (between Runway 26R and Runway 26L), ASOS (north of Runway 26L), and Localizer and Glide Slope (west of Runway 8L). This Project will impact the existing FAA-maintained REILs as they will be replaced with new REILs.

G. PROJECT SUPERINTENDENT REQUIRED

At all times when construction activities are being performed on the Project, the prime Contractor must have a superintendent on-site who is authorized to make decisions regarding the operations and safety of all personnel employed by the Contractor and subcontractors. Each day the designated superintendent must meet with the on-site engineer to coordinate activities for the day's work.

H. AIRPORT FAMILIARIZATION MEETING ON FIRST DAY OF CONSTRUCTION

Immediately prior to deploying on-site on the first day of construction, the County, Engineer, and Contractor's On-site representative shall meet at the Project Site. Topics of discussion will include a safety briefing, general familiarization with Airport Operations, changes to contact-lists, and any issues of concern raised since the Pre-Construction meeting.

This is not intended as a replacement for the Pre-construction meeting, but rather as a supplement, to verify that all on-site personnel are familiar with the Airport's procedures and the Project Construction Documents.

5. PHASING

The Project has been divided into a Mobilization Phase and a Construction Phase. The work efforts and affected airfield areas within the AOA are shown on the CSPP drawings in the plan set. If the Contractor fails to meet any of the time limitations as indicated in the Project Specifications, liquidated damages will be assessed as described in the Project Specifications.

A. PHASE ELEMENTS

1) Mobilization (MOB)

During this Phase of the Project, no work shall be conducted that in any way restricts Airport operations. Mobilization work shall include, but not be limited to, the following:

- Processing of required submittals, including the Contractor's work schedule.
- Preparation and submission of the SPCD.
- All prequalification testing, review, and approval.
- Mix design preparation, review, and approval.
- Airfield safety devices delivered to site (construction flags, low profile barricades, airport radios, runway closure markers, etc.).
- All miscellaneous Mobilization efforts required to commence construction.

- Implement erosion control measures.
- Establish Contractor's Yard.
- Materials and equipment delivered to site, as applicable. Note that deployment of any materials or equipment to construction areas shall not be allowed until the beginning of Phase 1.
- Site investigation.

All preliminary work required to pursue construction to completion shall be finalized during Mobilization.

2) Construction

Contractor shall establish their own working hours in compliance within the hours provided on the plans. For construction access, haul routes, and construction staging, see the Construction Safety and Phasing Plan Sheets.

Phase 1 (Work Area A):

- Coordinate placement of low-profile barricades, set up lighted closure X's.
- Cable and conduit installation.
- Removal of existing REIL.
- REIL installation at Runway 21.

Phase 2 (Work Area B):

- Coordinate placement of low-profile barricades, set up lighted closure X's.
- Cable and conduit installation.
- Removal of existing REIL.
- REIL installation at Runway 3.

Phase 3 (Work Area C):

- Coordinate placement of low-profile barricades, set up lighted closure X's.
- Cable and conduit installation.
- REIL installation at Runway 8L.

Phase 4 (Work Area D):

- Coordinate placement of low-profile barricades, set up lighted closure X's.
- Cable and conduit installation.
- REIL installation at Runway 8R.

Phase 5 (Work Area E):

- Coordinate placement of low-profile barricades, set up lighted closure X's.
- Cable and conduit installation.

- REIL installation at Runway 26R.

Phase 6 (Work Area F):

- Coordinate placement of low-profile barricades, set up lighted closure X's.
- Cable and conduit installation.
- REIL installation at Runway 26L.

Phase 7 (Work Area G):

- Coordinate placement of low-profile barricades, set up lighted closure X's.
- Cable and conduit installation at Runway 8L-26R and Runway 3-21 intersection.

Phase 8 (Work Area H):

- Coordinate placement of low-profile barricades, set up lighted closure X's.
- Cable and conduit installation at Runway 8R-26L and Runway 3-21 intersection.

Phase 9 (Work Area I):

- Coordinate placement of low-profile barricades.
- Cable and conduit installation back to vault room.

B. CONSTRUCTION SAFETY DRAWINGS

Drawings specifically indicating operational safety procedures and methods in affected areas have been developed for each Work Area and Phase (see *Supplement 3*). These drawings will be included in the Contract Bid Documents.

6. AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION

A. IDENTIFICATION OF AFFECTED AREAS

The areas and operations affected by the construction are identified in the construction drawings. Table 1 and Table 2 below show the anticipated operational impacts to the Airport during the course of the Project. Contractor is required to coordinate with the Airport prior to impacting operations on the Airport. See *Supplement 3* for more details.

Table 1. Airport Operations Affected by Construction

PHASE	WORK AREA	WORK	PAVEMENT CLOSURES FOR PHASE
MOB	N/A	• MOBILIZATION • SUBMITTALS • SCHEDULE COORDINATION	NONE
1	A	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 21	RW 3-21
2	B	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 3	RW 3-21
3	C	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8L	RW 8L-26R
4	D	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8R	RW 8R-26L
5	E	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26R	RW 8L-26R
6	F	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26L	RW 8R-26L
7	G	• CABLE AND INSTALLATION AT RW 8R-26L AND RW 3-21 INTERSECTION	RW 8R-26L RW 3-21
8	H	• CABLE AND INSTALLATION AT RW 8L-26R AND RW 3-21 INTERSECTION	RW 8L-26R RW 3-21
9	I	• CABLE & CONDUIT INSTALLATION BACK TO VAULT ROOM	APRON AREA, AS SHOWN ON PLANS

B. MITIGATION OF EFFECTS

Mitigations to runway and taxiway operations are as shown on the Construction Safety and Phasing Plan Sheets. The Airport will be maintained open for air operations during the 66 days of construction but will allow access to open runways as instructed by the ATCT.

7. PROTECTION OF NAVIGATION AIDS (NAVAIDS)

There will be impacts to Navigation Aids (NAVAIDS) during this Project when construction elements require the shutdown of the Runway. Disabling of Runway lights (including edge lights, threshold lights, REILs, and PAPIs) for closed runways shall be the responsibility of the Owner. In concert with the lighted 'X's and barricades, this is required to ensure runway closure and avoid pilot confusion.

8. CONTRACTOR ACCESS

A. LOCATION OF STOCKPILED CONSTRUCTION MATERIALS

Location of stockpiled materials and equipment storage shall be in the staging areas or as approved by the Operator. Stockpiling materials and equipment outside the staging areas shall receive prior approval from the Operator and will be subjected to the restrictions described in this paragraph. Stockpiled materials and equipment storage are not permitted within the RSA or Obstacle Free Zone (OFZ) and shall not be placed within the Object Free Area (OFA) of an operational runway. See *Section 21 – Protection of Runway and Taxiway Safety Areas* for requirements of stockpiled materials inside the Runway Object Free Area (ROFA). Stockpiles shall be restricted to a maximum height of 15 feet. Stockpiled material shall meet the requirements of *Section 9 – Wildlife Management* to prevent the stockpile location(s) from becoming wildlife attractants.

B. CONTRACTOR'S DESIGNATED REPRESENTATIVE

The Contractor shall inform its supervisors and workmen of the Airport activity and operations that are inherent to this Airport, as well as the safety requirements and security regulations of the Airport. The Contractor shall conduct its construction activities to conform to both routine and emergency requirements. During construction, the Contractor shall designate a responsible representative who will be personally available on a 24-hour basis. The Contractor shall advise the Engineer of the representative's name and telephone number. The Contractor shall comply with all current safety laws, ordinances, and regulations as they may apply to this contract.

C. VEHICLE AND PEDESTRIAN OPERATIONS

1) Construction Site Parking.

Employees' vehicles shall be parked in the areas designated by the Airport. No employee vehicles will be allowed beyond the area designated by the Airport. In areas where the designated parking area is adjacent to the perimeter security fence; all vehicles shall be positioned a minimum of 10 feet away from either side of the fence.

2) Construction Equipment Parking.

All service and construction vehicles and/or equipment shall be parked in the staging area when not in use and shall be positioned a minimum of 10 feet away from either side of a perimeter security fence. See *Section 21 – Protection of Runway and Taxiway Safety Areas* for further parking restrictions within safety areas and object free areas. Unless a complex setup procedure makes movement of specialized equipment infeasible, inactive equipment will not be allowed to park on a closed taxiway or runway. If it is necessary to leave specialized equipment on a closed taxiway or runway at night, the Operator must approve the request and the equipment shall be lighted in accordance with *Section 22 – Other Limitations on Construction*.

3) Access and Haul Roads.

The Contractor will be allowed to use only the Project security gates and haul routes shown on the Plans. Work area specific haul routes are shown on the Work Area Plan Sheets (*Supplement 3*). Right-of-way shall be given to all emergency vehicles and aircraft sharing the haul routes with the Contractor.

Any vehicle/equipment operator requiring access to the AOA for construction will require authorization to drive on the airfield or to be escorted by a Contractor provided escort.

Any local, state, or federal permits necessary for material transport on public roads shall be obtained by the Contractor prior to the beginning of work.

Contractor must ensure all electronic gates close after accessing the site.

4) Traffic Control Flaggers and Gate Personnel.

Contractor shall monitor traffic control and will be required to communicate or monitor air traffic control frequency. Every active pavement crossing shall have sweeper or vacuum equipment available to maintain an FOD-free crossing. The Contractor shall log all entering and exiting traffic. The Contractor shall staff and maintain AOA security as follows:

- The Contractor shall provide Gate Personnel at any AOA access gate for any traffic other than badged personnel.
- Construction traffic shall not back up or create delays nor impede access to the airfield or public roadways.
- Contractor shall keep a record of all contractor/subcontractor vehicles on site. Bills of lading, or similar items, are acceptable if they meet these general conditions and can be reproduced upon request. Items of record shall include the following:
 - Date
 - Driver's Name
 - Vehicle Number
 - Company Name
- All vehicles shall have an approved logo or company name displayed on both sides of the vehicle.
- Except for escorted vehicles, all vehicles shall have displayed a current County issued Airfield Vehicle permit.
- All drivers of vehicles being escorted shall have a current/valid state issued driver's license.

5) Marking and Lighting of Vehicles.

Only marked Contractor-owned or operated vehicles required for the proper execution of the work will be allowed in the work area. All vehicles and equipment shall have an omni-directional amber flashing light and/or a 3-foot by 3-foot flag having a checkered pattern of international orange and white squares at least one foot on each side. All vehicles and equipment must be equipped with an omni-directional amber flashing light for all airfield activities between sunset and sunrise or when visibility is low. Vehicles within the airfield environment shall display company identification markings

on both sides of the vehicle. Non-motorized equipment shall have reflective devices displayed on the front, back, and sides. All supervisory and survey personnel vehicles which operate within the airfield environment but outside the work area shall have a company vehicle with an amber flashing light mounted on the roof of the cab and identifying markings, visible from 300 feet, mounted on both sides of the vehicle.

6) Training Requirement for Vehicle Drivers.

All persons driving on the AOA are required to take the County AOA Driver's Training and Test and pass at 100 percent. All drivers are to be familiar with the airport environment, boundary of operations, and all haul routes. Each approved driver will be issued a gate access card at the construction kick-off meeting and expected to follow driving protocols and boundaries while driving on the Airport.

7) Situational Awareness.

Yield the right-of-way to moving aircraft, whether under tow or their own power, and to pedestrians. While driving or working on the airfield environment, there shall be no devices in or on the ears, other than those used to protect hearing or communicate company business. Yield the right-of-way to emergency vehicles displaying rotating beacons (other than amber) and/or using sirens and other audible emergency signals. In the event of an emergency, be prepared to move workers, vehicles, and equipment immediately at the direction of the Operator.

8) Two-Way Radio Communication Procedures.

All activities within aircraft movement areas will require two-way radio communication. The Contractor's on-site foremen/lead/superintendents shall carry (or have immediately available) a VHF aviation radio. Frequencies that will be used by Operator personnel are:

- CTAF: 118.5
- UNICOM: 122.95
- WX AWOS-3: (909) 393-5823
- Chino Ground: 121.6
- Chino Tower: 118.5
- SOCAL Approach: 135.4
- SOCAL Departure: 135.4

9) Airport Security.

Any gates shall be closed and locked when not in use. Locks on multi-use gates shall be "daisy-chained" so that all keyed personnel have access. Failure to adhere to these requirements will result in the Contractor's lock privilege being removed by the Operator.

Workers shall abide by requirements dictated by the County. These include, but are not limited to, regulations for entering/exiting, operating vehicles on the AOA, escorting procedures and visibility requirements.

10) Vehicle Escorting

Contractor shall be in-charge of escorting all personnel required to perform their work; escort will not be provided by the Construction Management firm, Operations, Maintenance or County personnel.

D. VEHICLE OPERATIONS WITHIN AOA

- All motor vehicles that enter the AOA shall possess exhaust systems which are protected with screens, mufflers, or other devices adequate to prevent the escape of sparks or the propagation of flames.
- All vehicles (powered and non-powered) within the AOA shall be equipped with reflectors or lights on both front and rear ends and on the sides.
- All Contractor vehicles shall be equipped with operable yellow flashing beacons, beacons must be lighted during all periods of vehicle operation and while the vehicle is on the AOA. In addition, all contractor vehicles and equipment with such lights shall be operated with parking, taillights and headlights illuminated at all times while on the AOA.
- No person shall operate any motor vehicle or motorized equipment in the AOA of the Airport unless such motor vehicle or motorized equipment is in a safe and mechanically reliable condition for such operation.
- Any person operating equipment in the Air Operations Area shall, in addition to this section, abide by all existing Federal Aviation Administration and other governmental rules and regulations.
- No person shall operate any motor vehicle or motorized equipment on the aircraft movement or non-movement areas of the Airport at a speed in excess of 20 miles per hour, or the posted speed limit, whichever is lower, and less where conditions warrant, unless specified otherwise elsewhere. Designated motor vehicle drive lanes shall be utilized where provided unless specific authorization to the contrary is given by the Engineer.
- All aircraft and emergency vehicles have priority over Contractor vehicles. Contractor vehicles shall yield right-of-way to aircraft and emergency vehicles. Contractor shall ensure that under no circumstances will any contractor or subcontractor or other vehicle associated with the job pass beneath any part of an aircraft or loading bridge or block the access to any parking gate or delay any aircraft movement.
- Vehicles shall remain within established drive lanes. It is prohibited to use runways or taxiways or adjacent field areas unless specifically indicated on the Plans. It is emphasized that the contractor's authority to operate does not extend to active aircraft movement area, unless indicated in the plans. The Contractor shall operate along established haul routes with prior approval of the Engineer.
- Contractor vehicles shall not deviate from approved haul routes specified on the Plans. No crossover between construction sites is allowed. To move from one construction site to another, vehicles must exit the AOA via the approved haul route and access point and re-enter through the approved access gate and haul route for the next construction site.
- Spoil covers shall be used whenever trucks are loaded and operating on Airport property. Trucks with obstructed view to the rear must have a functional back-up alarm that is always in use.

E. VEHICLE OPERATORS

All drivers operating vehicles on Airport property must carry a valid United States driver's license on his person, appropriately endorsed for the type of equipment being operated.

9. WILDLIFE MANAGEMENT

A. TRASH

Receptacles shall be provided by the Contractor and equipped with metal, canvas, or plastic covers. Food scraps or other trash may not be disposed on the ground and must be collected and placed in the covered receptacles so as not to attract wildlife.

B. STANDING WATER

Staging areas, stockpile areas, and the work area shall be graded to drain to avoid attracting wildlife.

C. TALL GRASS AND SEEDS

Not applicable for this Project.

D. POORLY MAINTAINED FENCING AND GATES

Fences and/or gates left open and unattended can allow undesired wildlife inside the Airport perimeter fence. Refer to *Section 8 – Contractor Access* for requirements on maintaining the secured area of the Airport. Contractor personnel shall immediately notify the Operator of unwanted wildlife inside the Airport perimeter fence.

E. DISRUPTION OF EXISTING WILDLIFE HABITAT

Not applicable to this Project.

10. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

The Contractor will be required to ensure that the airfield environment is kept continuously free of construction debris, equipment and/or materials that might endanger or be ingested by an aircraft. Take extreme care to ensure no work-related debris or other loose items are allowed to be blown by wind or aircraft engine blast. The Contractor shall be responsible for any resulting damage to aircraft engines and/or other property arising from failure to secure and/or protect debris, tools, supplies, or other loose items. Following the requirements in *Section 9 – Wildlife Management* will help eliminate the potential for FOD. In areas that may result in the tracking of soil, sediments, or hazardous materials on the wheels of hauling equipment outside of the areas that are enclosed by erosion and silt/sediment control devices, the Contractor shall provide the means and methods to remove these materials prior to the vehicle exiting the controlled area. If water wash stations are used, the Contractor shall provide systems for the collection, treatment, and disposal of wheel wash water and accumulated sediment. Equipment operated on haul routes over existing pavements shall be kept free of material spillage and foreign matter at all times. Haul routes that are shared with aircraft operations shall be cleaned continuously with **A NYLON-BRUSH VACUUM SWEEPER (STEEL BRUSH NOT ALLOWED)**, or other Operator approved methods.

Standby equipment is required to be onsite and readily available and operational at all times throughout the Project and shall include, at a minimum, a self-propelled sweeper and a water truck. Backup equipment will not be required to remain in an unproductive standby status and may be used for normal productive work.

Dust control shall be in conformance with any applicable State Standards and the Project Specifications. The Contractor shall provide the ways and means to prevent dust, grit, and other waste products from becoming a nuisance in and around the working areas. The Contractor shall take action, as necessary, with the approval of the Operator, to reduce or eliminate such nuisance. The Contractor shall control dust during the entire Contract period, including holidays and weekends.

Application of water for controlling dust caused by construction operations or the passage of traffic through the work area(s) shall be applied as directed by the Operator at the Contractor's expense.

11. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

If shipments of hazardous material (including hazardous debris, contaminated soil or water, and hazardous waste) will be unloaded onto or loaded from Operator property, the Contractor shall have a qualified person available onsite when shipments are made and/or received who is current with U.S. Department of Transportation (DOT) approved training for the transportation of hazardous materials. Contractor shall properly characterize and manifest waste material leaving Operator property for disposal. When the waste reaches its final destination, the owner or operator of the designated and permitted treatment, storage, and disposal (TSD) facility shall sign the manifest and return a copy to the Operator within 35 days to confirm receipt.

Minor spills can be controlled by the first responder at the discovery of the spill. Use absorbent materials on small spills rather than hosing down or burying the spill. First responder should contain the spread of the spill, recover spilled materials, clean the contaminated area, and properly dispose of contaminated materials. For minor spills, consult product MSDSs for recommended actions for spills or container leaks. Additionally, MSDSs will provide emergency phone numbers and occupational health hazard information if needed.

Semi-significant spills can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. Notify the Operator of semi-significant spills. Spills should be cleaned up immediately. Contain the spread of the spill and notify the Project foreman immediately. If the spill occurs on paved or impermeable surfaces, clean up by using dry methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely. If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil. If the spill occurs during rain, cover the spill with tarps or other material to prevent contaminating runoff.

Significant / Hazardous Spills that cannot be controlled by personnel in the immediate vicinity must be reported to the local emergency response by dialing 911. In addition to 911, the contractor shall notify the Operator, proper Operator officials and the state Emergency Services Warning Center. The services of a spills contractor or a HAZMAT team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staff have arrived at the job site. Other agencies which may need to be consulted include, but are not limited to, the Fire Department, the Public Works Department, the Highway Patrol, the City/Operator Police Department, and the Department of Toxic Substances.

Ensure that hazardous goods and materials delivered to or from the construction site meet applicable DOT labeling and placarding requirements. Upon request from the Operator, MSDSs should be supplied for all hazardous material being delivered to the site.

The storage and shipment of hazardous waste shall also comply with the requirements of this section.

It is emphasized, however, that although spills resulting from incidents or accidents should be responded to, securing the well-being of people comes first.

Good housekeeping practices should be utilized during equipment fueling and maintenance operations. Inspect fueling equipment for leaks prior to dispensing. Fueling operations shall be continuously attended while dispensing fuel. To allow adequate time for containment in the event of a spill, fueling and maintenance operations shall not be performed within 50-feet of a storm drain, inlet, ditch, surface water, wetland, etc.

12. NOTIFICATION OF CONSTRUCTION ACTIVITIES

A. RESPONSIBLE REPRESENTATIVES / POINTS OF CONTACT:

Name	Representing	Office
Henry Martinez	Airport	(909) 327-7645
James Jenkins	Airport	(909) 844-3334

Additional points of contact will be provided at the Pre-Construction Meeting.

B. NOTICES TO AIRMEN (NOTAM)

Only the Operator may initiate or cancel a NOTAM on the Airport. Points of contact for issuing NOTAMS are as follows:

- Primary Contact (24 hours) – Henry Martinez (909) 327-7645
- Alternate Contact – James Jenkins (909) 844-3334

C. EMERGENCY CONTACT INFORMATION

- Emergency: DIAL 911
- California Poison Center: 1-800-222-1222
- California State Warning Center (CalOES): 916-845-8911

Any emergency requiring contact to these numbers shall also be immediately reported to Henry Martinez.

D. COORDINATION WITH ARFF PERSONNEL

The proposed Project does not deactivate waterlines or hydrants. If during this Project it becomes necessary to block or close emergency services routes, alternate airfield emergency routes will be established. This Project is anticipated to include the use of hazardous materials normally associated with heavy highway construction, including materials related to the maintenance of equipment, asphalt paving operations, and related items.

E. NOTIFICATION OF THE FAA

1) Part 77.

The Project will affect navigable airspace, therefore, the Operator will file an FAA 7460-1, Notice of Proposed Construction or Alteration, for the Project. Any equipment, (cranes, graders, other equipment) used by the Contractor that exceeds the height limitation in *Section 22 – Other*

Limitations on Construction must also have a 7460-1 Airspace Evaluation and Determination prior to use.

2) NAVAIDs.

For emergency (short-notice) notification about impacts to both Airport owned and FAA owned NAVAIDs, Contractor shall have the Operator contact Henry Martinez and Joe Dozier, (909) 663-8421.

3) Airport owned/FAA maintained facilities.

If construction operations require a shutdown of more than 24 hours or more than 4 hours on consecutive days of a NAVAID owned by the Airport but maintained by the FAA, a 45-day minimum notice to FAA ATO/Technical Operations must be provided prior to facility shutdown. This is not expected to occur on this Project.

4) FAA owned facilities.

No FAA-owned NAVAIDs will be affected by this Project.

13. INSPECTION REQUIREMENTS

A. DAILY INSPECTIONS

Inspections should be conducted by the Contractor at least daily, but more frequently if necessary to ensure conformance with the CSPP. These areas shall be maintained in accordance with *Section 10 – Foreign Object Debris (FOD) Management*. The Operator will have the final authority in determining if the area is suitable for aircraft use. *Supplement 2* contains a safety inspection checklist that may be used by the Contractor or Operator.

B. FINAL INSPECTIONS

A final inspection shall be conducted by the Operator and Engineer prior to the commissioning of any newly constructed areas open to air traffic. The Operator will have the final authority in determining if the area is suitable for aircraft use. *Supplement 2* contains a safety inspection checklist that may be used by the Contractor or Operator.

14. UNDERGROUND UTILITIES

Contractor must notify the Underground Service Alert (Southern California) by calling either 8-1-1 or 800-422-4133 (<https://www.digalert.org>), and any other owners of underground utilities within the construction area or within affected public right-of-way or easements, in advance of the commencement of excavation activities. Also, notify the Operator when the call is being initiated so the Operator can provide information to Airport utilities as well.

Contractor shall not cross electrical or communication cables unless protected by approved means. In the event of interruption to field-located utility services as a result of the work, promptly notify the Operator first, and then the proper authority. Cooperate with said authority in restoring service as promptly as possible. If required, the Contractor shall install suitable temporary service until permanent repair is completed.

15. PENALTIES

The Contractor is responsible for maintaining security during construction as detailed herein. The Operator is subject to fines up to \$20,000 or as determined by federal agencies for security violations. The Contractor shall be responsible for any fines caused by his failure to observe the security requirements contained herein or required by the SPCD. Violations may be cause for the Project to be stopped and Project safety procedures evaluated. Contractor calendar days will continue to be charged, even if the Operator ceases construction operations. The Operator will decide if and when work will continue. Enforcement of these regulations will be by the Operator and/or Airport Operations Staff.

Violations of the driving regulations may be cause for the Project to be stopped and Project safety procedures evaluated. The Operator will decide if and when work will continue. The Operator will decide if the infringing individual or party will be allowed to continue working at the Airport. Enforcement of these regulations will be by the Operator, Police and/or Airport Operations Staff.

16. SPECIAL CONDITIONS

Not applicable.

17. RUNWAY AND TAXIWAY VISUAL AIDS

A. GENERAL

No temporary Airport markings will be used throughout the duration of the Project.

B. MARKINGS

1) Temporary Closed Runways

Temporarily closed runways are identified in the work area plans and identified in *Section 6 – Areas and Operations Affected by Construction*. For runway closures, the Project proposes placing low profile, water-filled barricades to delineate areas that aircraft and personnel may not travel beyond. Barricades will be located no closer than the Object Free Area (OFA) of a movement area. Painted Xs will not be utilized to avoid confusion over which area is closed. Lighted X's will be utilized at each end of the runway. Maintenance and fueling for generators shall be the responsibility of the Contractor.

2) Temporarily Closed Taxiways

Temporarily closed taxiways are identified in the work area plans and identified in *Section 6 – Areas and Operations Affected by Construction*. For individual taxiway closures, the Project proposes placing low profile, water-filled barricades to delineate areas that aircraft and personnel may not travel beyond. Barricades will be located no closer than the Object Free Area of a movement area. Painted Xs will not be utilized to avoid confusion over which area is closed. Lighted barricades will be utilized as necessary.

C. LIGHTING AND VISUAL NAVAIDS

1) Temporary Closed Runways

Temporarily closed Runway 18-36 as identified in the work area plans and identified in *Section 6 – Areas and Operations Affected by Construction* will have runway lights deactivated.

2) Temporarily Closed Taxiways

Temporarily closed taxiways as identified in the work area plans and identified in *Section 6 – Areas and Operations Affected by Construction* will have taxiway lights deactivated or covered.

D. SIGNS, TEMPORARY, INCLUDING ORANGE CONSTRUCTION SIGNS, AND PERMANENT SIGNS

1) Temporary Closed Runways.

If possible, the temporarily closed runway(s) will have the runway signs deactivated. When deactivation is not possible, the signs shall be covered in such a way to prevent light leakage.

2) Temporarily Closed Taxiways.

If possible, the temporarily closed taxiway(s) will have the taxiway signs deactivated. When deactivation is not possible (for example other taxiways on the same circuit remain open), the signs shall be covered in such a way to prevent light leakage.

18. MARKING AND SIGNS FOR ACCESS ROUTES

The Contractor shall place traffic control signs and/or devices, as appropriate, to advise traffic of construction operations and hauling. Signs and/or devices shall conform to the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD), current edition. Contractor shall prepare any City/County required Traffic Control Plan and pay all fees associated with the plan.

Temporary markings are not to be installed by the Contractor as they may interfere with existing Airport signs and may confuse pilots.

19. HAZARD MARKING AND LIGHTING

Before starting work, provide and have available all signs, barricades, and lights necessary for protection of the work. Install and maintain adequate warning signs and lighted barricades to protect property and personnel in the work area. Barricades shall be weighted or anchored to prevent overturning from wind or aircraft engine blast.

Contractor is responsible for placing and maintaining barricades, including replacing batteries as needed. Barricades are not permitted in any active safety area. Barricades located within a runway or Taxiway Object Free Area (TOFA) and/or on aprons must be as low as possible to the ground, and no more than 18 inches high, exclusive of supplementary lights. Low-profile barricades shall be spaced a maximum of 5 feet apart unless otherwise directed by the Operator.

Additionally, the Contractor shall provide candle stick barricades as required to barricade hazardous areas. See the *Special Provisions for Airport Construction* in the Project Specification Book for requirements on barricades, delineators, and radios.

The Contractor shall have a person on call 24 hours a day for emergency maintenance of Airport hazard lighting and barricades. The Contractor must file the contact person's information with the Operator. Lighting shall be checked for proper operation at least once per day, preferably at dusk.

Open trenches, excavations, or obstructions not being actively worked shall be marked with lighted and weighted barricades which can be seen from a reasonable distance.

20. WORK ZONE LIGHTING FOR NIGHTTIME CONSTRUCTION

If necessary, site lighting via portable lights shall be situated to project downward and not toward a runway or any runway approach. Low profile barricades shall have two red flashing beacons per barricade and all vehicles are required to have a flashing orange beacon. A lighted X over the numerals at each end is required to close a runway during construction.

If it is necessary to leave specialized equipment on a closed taxiway at night, the Airport must approve the request and the equipment will be lighted. Equipment shall not be left on a closed runway at night.

21. PROTECTION OF RUNWAY AND TAXIWAY SAFETY AREAS

A. RUNWAY SAFETY AREA (RSA)

No construction may occur within the existing Runway Safety Area (RSA) while the runway is open for aircraft operations. Open trenches or excavations are not permitted within the RSA while the runway is open. If possible, backfill trenches before the runway is opened. If the runway must be opened before excavations are backfilled, cover the excavations appropriately. Covering for open trenches must be designed to allow the safe operation of the heaviest aircraft (100,000-pound wheel loading) operating on the runway across the trench without damage to the aircraft. Contractors must prominently mark open trenches and excavations at the construction site with red or orange flags, as approved by the County, and light them with red lights during hours of restricted visibility or darkness. Soil erosion must be controlled to maintain RSA standards; that is, the RSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations; and be capable, under dry conditions, of supporting the occasional passage of aircraft without causing structural damage to the aircraft. The ground surface within the RSA will not have edges exceeding 3 inches unless the runway is closed. The RSAs are depicted on the work area plans contained in *Supplement 3*.

B. RUNWAY OBJECT FREE AREA (ROFA)

Construction, including excavations, may be permitted within the ROFA; however, equipment must be removed from the ROFA when not in use and material should not be stockpiled in the ROFA if not necessary. Stockpiling material in the ROFA requires submittal of a 7460-1 form and County approval. The ROFA's are depicted on the work area plans contained in *Supplement 3*.

C. TAXIWAY SAFETY AREA (TSA)

No construction may occur in the TSA while the taxiway is open to aircraft operations. Open trenches or excavations are not permitted within the TSA while the taxiway is open. If possible, backfill trenches before the taxiway is opened. If the taxiway must be opened before excavations are backfilled, cover the excavations appropriately. Covering for open trenches must be designed to allow the safe operations of the heaviest aircraft operating on the taxiway to cross the trench without damage to the aircraft. Contractors must prominently mark open trenches and excavations at the construction site with red or orange flags, as approved by the Operator, and light them with red lights during hours of restricted visibility or darkness. The ground surface within the TSA shall not have edges exceeding 3 inches unless the taxiway is closed. Soil erosion must be controlled to maintain TSA standards, that is, the TSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and be capable, under dry conditions, of supporting the occasional passage

of aircraft without causing structural damage to the aircraft. The TSAs are depicted on the work area plans contained in *Supplement 3*.

D. TAXIWAY OBJECT FREE AREA (TOFA)

No construction will be allowed within the TOFA while the taxiway is open to aircraft operations. Contractor shall delineate TOFA with low-profile barricades. Method shall be acceptable to Operator and shall assist in preventing construction equipment from entering the TOFA when taxiway is closed. The TOFAs are depicted on the work area plans contained in *Supplement 3*.

E. OBSTACLE FREE ZONE (OFZ)

Personnel, material, and/or equipment may not penetrate the OFZ while the runway is open to aircraft operations. The runway OFZ is depicted on the work area plans contained in *Supplement 3*.

F. RUNWAY APPROACH/DEPARTURE SURFACES

When runway is open, all personnel, material, and/or equipment must remain clear of the threshold siting surfaces (approach and departure surfaces).

22. OTHER LIMITATIONS ON CONSTRUCTION

A. PROHIBITIONS

- Open flame welding or torches are prohibited unless fire safety precautions are provided, and the Airport operator has approved their use.
- Electric blasting caps are prohibited on or within 1,000-feet of the Airport property.
- Flare pots are prohibited within the AOA.
- Texting while driving is prohibited.
- Speed limit is 10 mph on the ramp, and 25 mph on the perimeter road, for all vehicles and equipment.

B. RESTRICTIONS

- Construction equipment that extends 15 feet or more above ground level shall be cleared through the Operator prior to moving onto site. When cranes are used, an FAA-approved, 3-foot orange and white checkered flag and a solid red light shall be mounted at the highest point on the crane. Equipment that may be lowered readily shall be lowered at night, during reduced daytime visibility, and during other periods of storage to comply with the 15-foot height limitation.
- If directed by the Operator, construction equipment that cannot be lowered below the 15-foot height limitation shall be lighted at night and during periods of reduced daytime visibility. Light shall be mounted on the highest point of equipment; shall be omni-directional; and shall consist of, as a minimum, one 100-watt bulb enclosed within an aviation red lens. Also, for daytime operations, mount an FAA-approved three-foot square orange and white checkered flag at the highest point.
- During daylight hours with severe visibility problems or heavy fog, cranes shall not operate. The Operator will determine when visibility problems exist and will coordinate and designate requirements for position and location of flag and light.

- Construction sequence, duration, and time limitations can be found in *Section 6 – Areas and Operations Affected by Construction* and the work area plans.

23. SAFETY PLAN COMPLIANCE DOCUMENT (SPCD)

The SPCD shall detail how the Contractor will comply with the CSPP. This shall include all Project specific Construction Safety Plan details not included in the CSPP, including construction equipment heights, any applicable hazard management requirements, and contact information for the Contractor's safety management staff responsible for monitoring the CSPP and SPCD during construction. The SPCD shall be a supplement to, and enhancement of, the Project CSPP. See *Supplement 1* for requirements of the SPCD.

The SPCD must include a statement that the Contractor understands the operational safety requirements of the CSPP and an assertion that the Contractor will not deviate from the approved CSPP and SPCD without written approval from the Operator. Any construction operation, activity, or practice proposed by the Contractor that does not conform to the CSPP and SPCD will require a revision to those documents. The revised CSPP and SPCD must be submitted to FAA for review and approval prior to performing any activities that are not in compliance with a previously approved CSPP.

Copies of the approved CSPP and SPCD must be available on-site at all times. The Contractor shall ensure all construction personnel are familiar with safety procedures and regulations applicable to construction on the Airport. At least one of the Contractor's safety management staff must be on-site whenever active construction is ongoing to act as a point of contact and immediate response coordinator to correct any construction-related activity that may adversely affect operational safety of the Airport.

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Supplement 1:
Safety Plan Compliance Document Requirements and Sample

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SAFETY PLAN COMPLIANCE DOCUMENT OUTLINE

The Safety Plan Compliance Document (SPCD) should include a general statement by the construction contractor that he/she has read and will abide by the CSPP. In addition, the SPCD must include all supplemental information that could not be included in the CSPP prior to the contract award. The contractor statement should include the name of the contractor, the title of the Project CSPP, the approval date of the CSPP, and a reference to any supplemental information (that is, "I, Name of Contractor, have read the Title of Project CSPP, approved on Date, and will abide by it as written and with the following additions as noted:"). The supplemental information in the SPCD should be written to match the format of the CSPP indicating each subject by corresponding CSPP subject number and title. If no supplemental information is necessary for any specific subject, the statement, "No supplemental information," should be written after the corresponding subject title. The SPCD should not duplicate information in the CSPP:

(1) Coordination. Discuss details of proposed safety meetings with the Airport operator and with contractor employees and subcontractors.

(2) Phasing. Discuss proposed construction schedule elements, including:

- (a) Duration of each phase.
- (b) Daily start and finish of construction, including "night only" construction.
- (c) Duration of construction activities during:
 - (i) Normal runway operations.
 - (ii) Closed runway operations.
 - (iii) Modified runway "Aircraft Reference Code" usage.

(3) Areas and operations affected by the construction activity. These areas and operations should be identified in the CSPP and should not require an entry in the SPCD.

(4) Protection of NAVAIDs. Discuss specific methods proposed to protect operating NAVAIDs.

(5) Contractor access. Provide the following:

- (a) Details on how the contractor will maintain the integrity of the Airport security fence (gate guards, daily log of construction personnel, and other).
- (b) Listing of individuals requiring driver training (for certificated airports and as requested).
- (c) Radio communications.
 - (i) Types of radios and backup capabilities.
 - (ii) Who will be monitoring radios.
 - (iii) Whom to contact if the ATCT cannot reach the contractor's designated person by radio.
- (d) Details on how the contractor will escort material delivery vehicles.
- (e) Details on how the contractor will familiarize and brief construction vehicles entering the Airport.

(6) Wildlife management. Discuss the following:

- (a) Methods and procedures to prevent wildlife attraction.
- (b) Wildlife reporting procedures.

(7) Foreign Object Debris (FOD) management. Discuss the following:

- (a) Equipment and methods for control of FOD, including construction debris and dust.
- (b) Inspection and removal of debris at end of each day's work.

(8) Hazardous material (HAZMAT) management. Discuss equipment and methods for responding to hazardous spills.

(9) Notification of construction activities. Provide the following:

- (a) Contractor points of contact.
- (b) Contractor emergency contact.
- (c) Listing of tall or other requested equipment proposed for use on the Airport and the timeframe for submitting 7460-1 forms not previously submitted by the Airport operator.
- (d) Batch plant details, including 7460-1 submittal.

(10) Inspection requirements. Discuss daily (or more frequent) inspections and special inspection procedures.

(11) Underground utilities. Discuss proposed methods of identifying and protecting underground utilities.

(12) Penalties. Penalties should be identified in the CSPP and should not require an entry in the SPCD.

(13) Special conditions. Discuss proposed actions for each special condition identified in the CSPP.

(14) Runway and taxiway visual aids. Including marking, lighting, signs, and visual NAVAIDs. Discuss proposed visual aids including the following:

- (a) Equipment and methods for covering signage and airfield lights.
- (b) Equipment and methods for temporary closure markings (paint, fabric, other).
- (c) Temporary orange construction signs.
- (d) Types of temporary Visual Guidance Slope Indicators (VGSI).

(15) Marking and signs for access routes. Discuss proposed methods of demarcating access routes for vehicle drivers.

(16) Hazard marking and lighting. Discuss proposed equipment and methods for identifying excavation areas.

(17) Work zone lighting for nighttime construction (if applicable). Discuss proposed equipment, locations, aiming, and shielding to prevent interference with air traffic control and aircraft operations.

(18) Protection of runway and taxiway safety areas, object free areas, obstacle free zones, and approach/departure surfaces. Discuss proposed methods of identifying, demarcating, and protecting Airport surfaces including:

- (a) Equipment and methods for maintaining Taxiway Safety Area standards.
- (b) Equipment and methods to ensure the safe passage of aircraft where Taxiway Safety Area or Taxiway Object Free Area standards cannot be maintained.
- (c) Equipment and methods for separation of construction operations from aircraft operations, including details of barricades.

(19) Other limitations on construction should be identified in the CSPP and should not require an entry in the SPCD.

**CONTRACTOR'S
SAFETY PLAN COMPLIANCE DOCUMENT (SPCD)
(AC 150/5370-2G)**

(Sample of SPCD – Contractor may use this form if so chooses.)

Project Information

Airport and Sponsor: Chino Airport, Chino, CA, San Bernardino County Department of Airports

Project ID: FAA AIP NO.

Description of Project: REILs for Runway 3-21, Runway 8L-26R, and Runway 8R-26L Project and
Vault Upgrade Project

Type of Work: _____

FAA Project Manager: _____ Phone: _____

Airport Operator Contact: _____ Phone: _____

Contractor's Information

Prime Contractor: _____

Address: _____

Contractor Contact: _____ Phone: _____

Contractor's Responsibility

In accordance with Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5370-2G, *Operational Safety During Airport Construction*, an SPCD for a project must be submitted to the FAA and to the Airport Operator for review and approval prior to the issuance of a Notice-to-Proceed for Construction. The SPCD shall be prepared in a detailed written and graphical format that identifies the timing and methodology for the Contractor's compliance with the Project's Construction Safety and Phasing Plan (CSPP).

The Contractor shall comply with all provisions contained herein and provide the following Project-specific complementary and supplemental information to the FAA-approved Construction Safety and Phasing Plan:

1. Contractor shall have copies of the CSPP and SPCD available at all times for reference by the Airport Operator and its representatives, and by Contractor's and subcontractor's employees.

2. Provide contact information for the person responsible for initiating and coordinating an immediate response to correct any construction-related activity that may adversely affect the operational safety of the Airport. Project will require 24-hour coverage.

Point of Contact: _____ Phone: _____

3. Provide list of Contractor's on-site employees responsible for monitoring compliance with the CSPP and SPCD whenever active construction is ongoing.

Contact Person: _____ Phone: _____

Contact Person: _____ Phone: _____

Contact Person: _____ Phone: _____

Contact Person: _____ Phone: _____

4. Contractor shall conduct inspections at least once daily, and more frequently if necessary to ensure construction personnel comply with the CSPP and SPCD and that there are no altered construction activities that could create potential safety hazards. A Construction Project Daily Safety Inspection Checklist is attached.

5. Describe details of Contractor's plan to restrict movement of construction vehicles and personnel to permitted construction areas by flagging, barricading, erecting temporary fencing, or providing escorts, as appropriate and as specified in the CSPP. Include the appropriate plan sheets to identify timing and/or location of control measures: **[Contractor to insert detailed description.]**

6. Describe details of Contractor's plan to ensure that no employees of Contractor, subcontractors, suppliers, or other persons enter any part of the Air Operations Area (AOA) unless authorized. **[Contractor to insert detailed description.]**

7. Provide a description and schedule of anticipated operation for all Contractor equipment over 15 feet in height (e.g. cranes, concrete pumps, other similarly tall equipment) and heights of stockpiles and haul routes when different from what is shown on previously filed CSPP. **[Contractor to insert detailed equipment list/stockpile heights as applicable.]**

(As necessary, the Contractor must coordinate with the Airport Operator for the purpose of filing a supplemental submittal of FAA Form 7460-1 to the FAA for determination of whether or not an aeronautical study must be conducted prior to allowing tall equipment operations to begin.)

8. Provide a description of Contractor's plan to ensure that construction personnel are familiar with the safety procedures and regulations on the Airport, the CSPP, and the SPCD. [***Contractor to insert detailed description.***]

SPCD Amendment

The SPCD shall be amended when there is a construction practice proposed by the Contractor that does not conform to the CSPP and SPCD and may impact the Airport's operational safety. This will require a revision to the CSPP and SPCD and re-coordination with the Airport Operator and the FAA in advance.

Statement of Certification

I certify that we understand the operational safety requirements of the CSPP and assert that we will not deviate from the approved CSPP and SPCD unless written approval is granted by the Airport Operator and FAA.

Print Name: _____ Title: _____

Signature: _____ Date: _____

Supplement 2:
Construction Project Daily Safety Inspection Checklist

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CONSTRUCTION PROJECT DAILY SAFETY INSPECTION CHECKLIST

The situations identified below are potentially hazardous conditions that may occur during Airport construction projects. Safety area encroachments, unauthorized and improper ground vehicle operations, and unmarked or uncovered holes and trenches near aircraft operating surfaces pose the most prevalent threats to Airport operational safety during Airport construction projects. The list below is one tool that the Airport operator or contractor may use to aid in identifying and correcting potentially hazardous conditions. It should be customized as appropriate for each project including information such as the date, time and name of the person conducting the inspection.

Potentially Hazardous Conditions

Item	Action Required	or	None
Excavation adjacent to runways, taxiways, and aprons improperly backfilled.			☐
Mounds of earth, construction materials, temporary structures, and other obstacles near any open runway, taxiway, or taxi lane; in the related Object Free area and aircraft approach or departure areas/zones; or obstructing any sign or marking.			☐
Runway resurfacing projects resulting in lips exceeding 3 inch (7.6 cm) from pavement edges and ends.			☐
Heavy equipment (stationary or mobile) operating or idle near AOA, in runway approaches and departures areas, or in OFZ.			☐
Equipment or material near NAVAIDs that may degrade or impair radiated signals and/or the monitoring of navigation and visual aids. Unauthorized or improper vehicle operations in localizer or glide slope critical areas, resulting in electronic interference and/or facility shutdown.			☐
Tall and especially relatively low visibility units (that is, equipment with slim profiles) — cranes, drills, and similar objects — located in critical areas, such as OFZ and approach zones.			☐
Improperly positioned or malfunctioning lights or unlighted Airport hazards, such as holes or excavations, on any apron, open taxiway, or open taxi lane or in a related safety, approach, or departure area.			☐
Obstacles, loose pavement, trash, and other debris on or near AOA. Construction debris (gravel, sand, mud, paving materials) on Airport pavements may result in aircraft propeller, turbine engine, or tire damage. Also, loose materials may blow about, potentially causing personal injury or equipment damage.			☐

Item	Action Required	or	None
Inappropriate or poorly maintained fencing during construction intended to deter human and animal intrusions into the AOA. Fencing and other markings that are inadequate to separate construction areas from open AOA create aviation hazards.			☐
Improper or inadequate marking or lighting of runways (especially thresholds that have been displaced or runways that have been closed) and taxiways that could cause pilot confusion and provide a potential for a runway incursion. Inadequate or improper methods of marking, barricading, and lighting of temporarily closed portions of AOA create aviation hazards.			☐
Wildlife attractants — such as trash (food scraps not collected from construction personnel activity), grass seeds, tall grass, or standing water — on or near airports.			☐
Obliterated or faded temporary markings on active operational areas.			☐
Misleading or malfunctioning obstruction lights. Unlighted or unmarked obstructions in the approach to any open runway pose aviation hazards.			☐
Failure to issue, update, or cancel NOTAMs about Airport or other construction related Airport conditions.			☐
Failure to mark and identify utilities or power cables. Damage to utilities and power cables during construction activity can result in the loss of runway / taxiway lighting; loss of navigation, visual, or approach aids; disruption of weather reporting services; and/or loss of communications.			☐
Restrictions on ARFF access from fire stations to the runway / taxiway system or Airport building.			☐
Lack of radio communications with construction vehicles in Airport movement areas.			☐
Objects, regardless of whether they are marked or flagged, or activities anywhere on or near an airport that could be distracting, confusing, or alarming to pilots during aircraft operations.			☐
Water, snow, dirt, debris, or other contaminants that temporarily obscure or derogate the visibility of runway/taxiway marking, lighting, and pavement edges. Any condition or factor that obscures or diminishes the visibility of areas under construction.			☐
Spillage from vehicles (gasoline, diesel fuel, oil) on active pavement areas, such as runways, taxiways, aprons, and Airport roadways.			☐

Item	Action Required	or	None
Failure to maintain drainage system integrity during construction (for example, no temporary drainage provided when working on a drainage system).			☐
Failure to provide for proper electrical lockout and tagging procedures. At larger airports with multiple maintenance shifts/workers, construction contractors should make provisions for coordinating work on circuits.			☐
Failure to control dust. Consider limiting the amount of area from which the contractor is allowed to strip turf.			☐
Exposed wiring that creates an electrocution or fire ignition hazard. Identify and secure wiring, and place it in conduit or bury it.			☐
Site burning, which can cause possible obscuration.			☐
Construction work taking place outside designated work areas and out of phase.			☐

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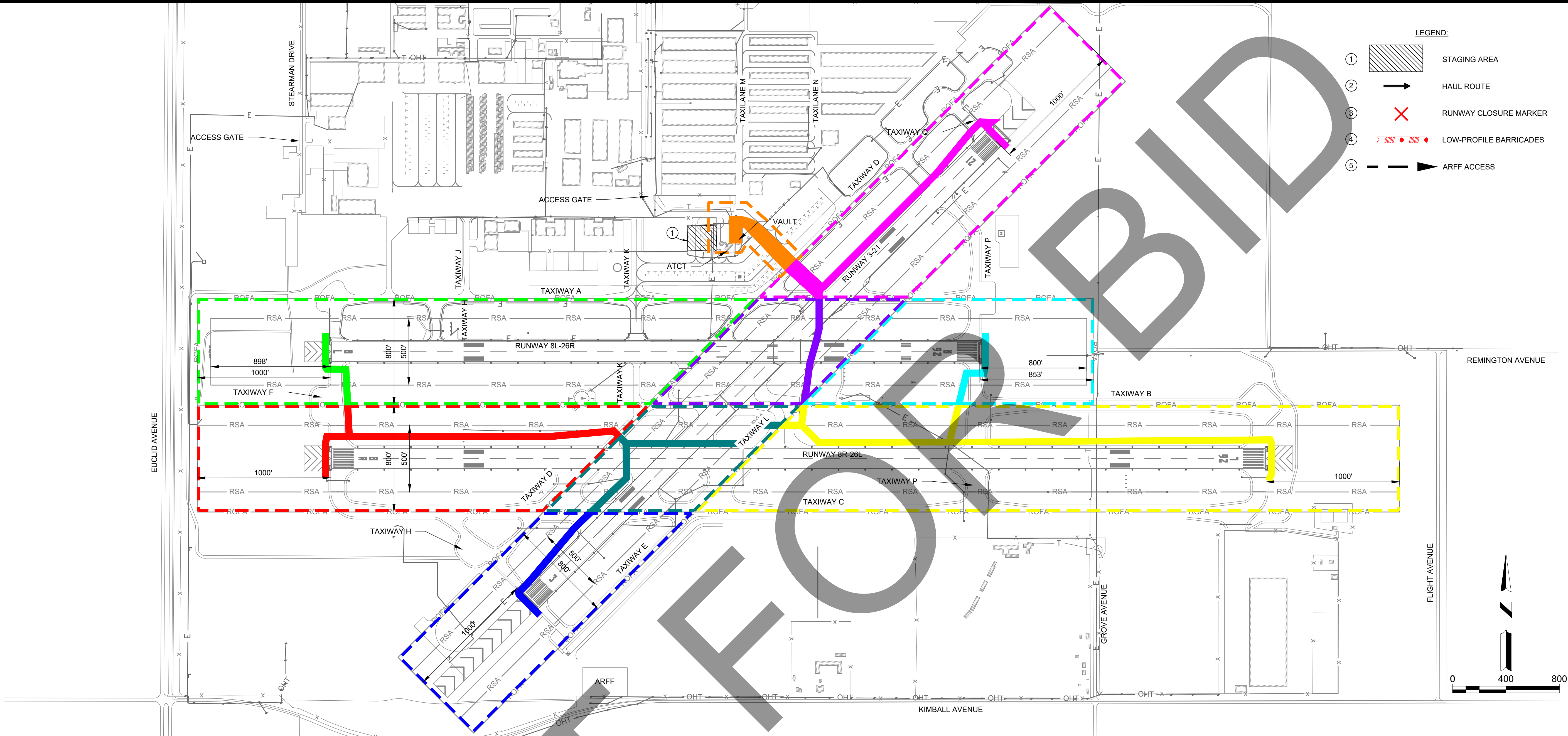
Supplement 3:

Work Area Plan Sheets

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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
MOB	N/A	NORMAL HOURS	• MOBILIZATION • SUBMITTALS • SCHEDULE COORDINATION	NONE	NONE	30 DAYS	
1	A	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 21	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	5 DAYS	
2	B	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 3	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	4 DAYS	
3	C	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8L	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	
4	D	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8R	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
5	E	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26R	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	

GENERAL PHASING NOTES:

- ALL PAVEMENT USED FOR HAULING SHALL BE SWEEPED/VACUUMED BY THE CONTRACTOR PRIOR TO OPENING TO AIRCRAFT TRAFFIC. AREAS TO BE OPENED SHALL BE CLEANED AND READY FOR INSPECTION BY AIRPORT OPERATIONS STAFF 30 MINUTES PRIOR TO PAVEMENT OPENING.
- MARKINGS DAMAGED BY HAULING SHALL BE PRESSURE WASHED AT NO ADDITIONAL COST AND A NEW COAT OF PAINT WITH BEADS APPLIED AT CONTRACT RATE.
- THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR WRITTEN NOTIFICATION TO THE AIRPORT PRIOR TO CLOSING THE NEXT WORK AREA.
- BARRICADE LOCATIONS ARE SCHEMATIC AND SHALL BE PLACED AT LIMIT OF HATCHING SHOWN ON PLAN UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR AIRPORT OPERATIONS.

PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
6	F	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26L	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
7	G	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8R-26L AND RW 3-21 INTERSECTION	RW 8R-26L RW 3-21	RW 8L-26R TW A TO TW Q	1 DAY	
8	H	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8L-26R AND RW 3-21 INTERSECTION	RW 8L-26R RW 3-21	RW 8R-26L, TW A TO TW Q	2 DAYS	
9	I	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION BACK TO VAULT ROOM	APRON AREA, AS SHOWN ON PLANS	TW D (NORTH OF TW A, SOUTH OF TW N)	8 DAYS	APRON AREA TO BE CLOSED ONLY AS NEEDED.

WORK AREA LEGEND:

WORK AREA A	WORK AREA F
WORK AREA B	WORK AREA G
WORK AREA C	WORK AREA H
WORK AREA D	WORK AREA I
WORK AREA E	

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AND RUNWAY 8R-26L PROJECT AND
VAULT UPGRADE PROJECT
7000 MERRILL AVE
CHINO, CA 91710

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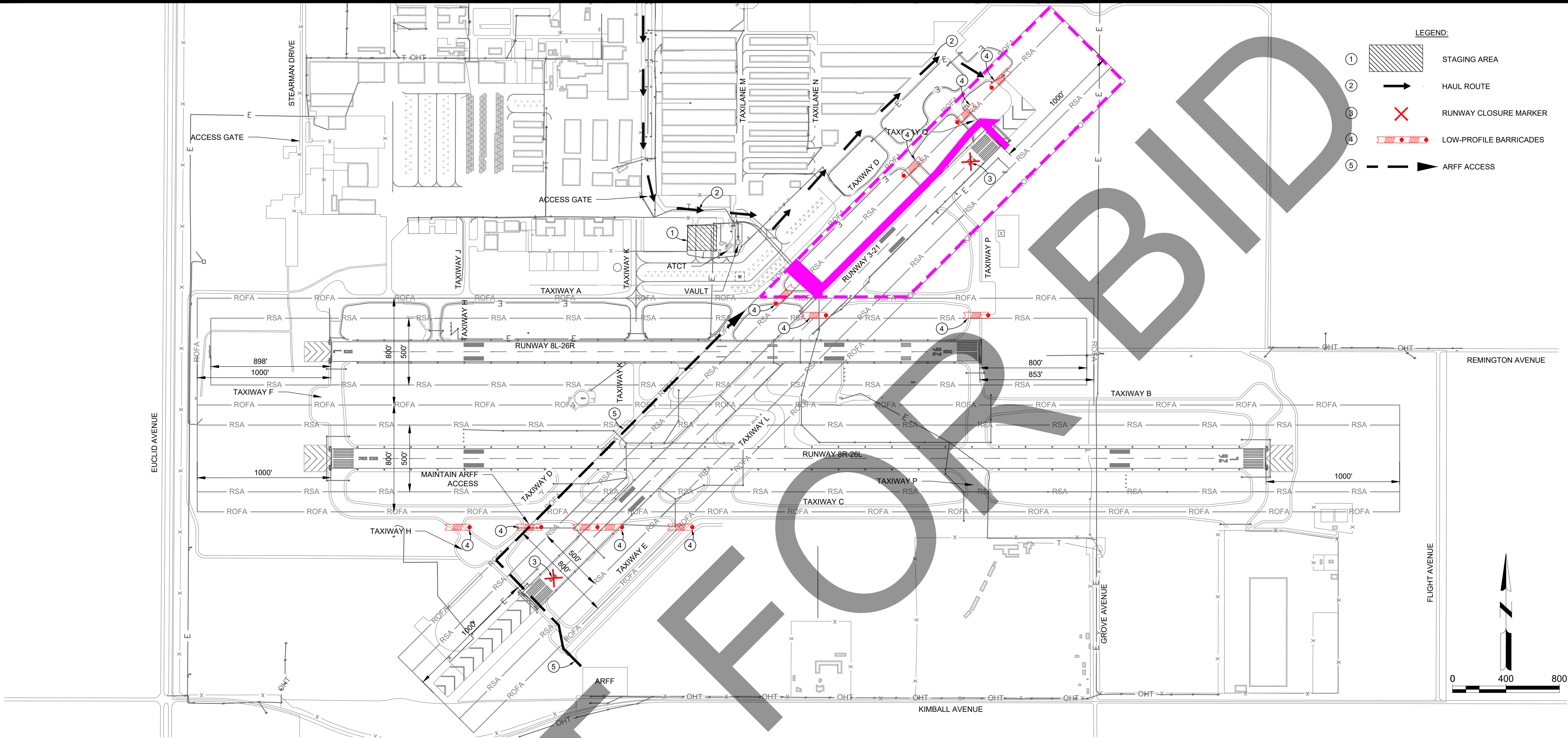
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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
MOB	N/A	NORMAL HOURS	• MOBILIZATION • SUBMITTALS • SCHEDULE COORDINATION	NONE	NONE	30 DAYS	
1	A	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 21	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	5 DAYS	
2	B	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 3	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	4 DAYS	
3	C	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8L	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	
4	D	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8R	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
5	E	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26R	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	

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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
6	F	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26L	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
7	G	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8R-26L AND RW 3-21 INTERSECTION	RW 8R-26L RW 3-21	RW 8L-26R TW A TO TW Q	1 DAY	
8	H	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8L-26R AND RW 3-21 INTERSECTION	RW 8L-26R RW 3-21	RW 8R-26L, TW A TO TW Q	2 DAYS	
9	I	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION BACK TO VAULT ROOM	APRON AREA, AS SHOWN ON PLANS	TW D (NORTH OF TW A, SOUTH OF TW N)	6 DAYS	APRON AREA TO BE CLOSED ONLY AS NEEDED.

WORK AREA LEGEND:

WORK AREA A	WORK AREA F
WORK AREA B	WORK AREA G
WORK AREA C	WORK AREA H
WORK AREA D	WORK AREA I
WORK AREA E	

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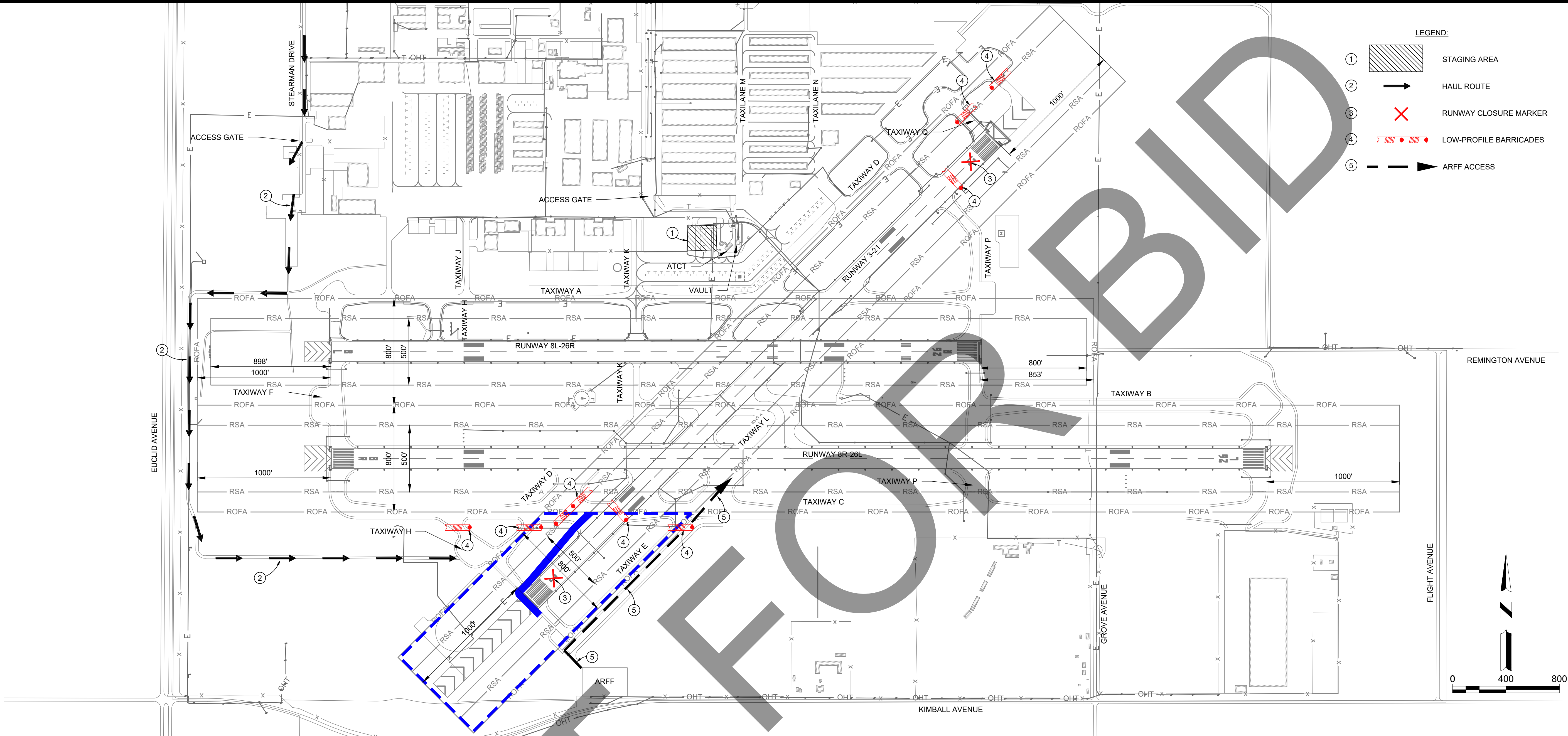
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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
MOB	N/A	NORMAL HOURS	• MOBILIZATION • SUBMITTALS • SCHEDULE COORDINATION	NONE	NONE	30 DAYS	
1	A	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 21	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	5 DAYS	
2	B	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 3	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	4 DAYS	
3	C	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8L	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	
4	D	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8R	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
5	E	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26R	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	

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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
6	F	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26L	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
7	G	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8R-26L AND RW 3-21 INTERSECTION	RW 8R-26L RW 3-21	RW 8L-26R TW A TO TW Q	1 DAY	
8	H	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8L-26R AND RW 3-21 INTERSECTION	RW 8L-26R RW 3-21	RW 8R-26L, TW A TO TW Q	2 DAYS	
9	I	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION BACK TO VAULT ROOM	APRON AREA, AS SHOWN ON PLANS	TW D (NORTH OF TW A, SOUTH OF TW N)	6 DAYS	APRON AREA TO BE CLOSED ONLY AS NEEDED.

WORK AREA LEGEND:

	WORK AREA A		WORK AREA F
	WORK AREA B		WORK AREA G
	WORK AREA C		WORK AREA H
	WORK AREA D		WORK AREA I
	WORK AREA E		

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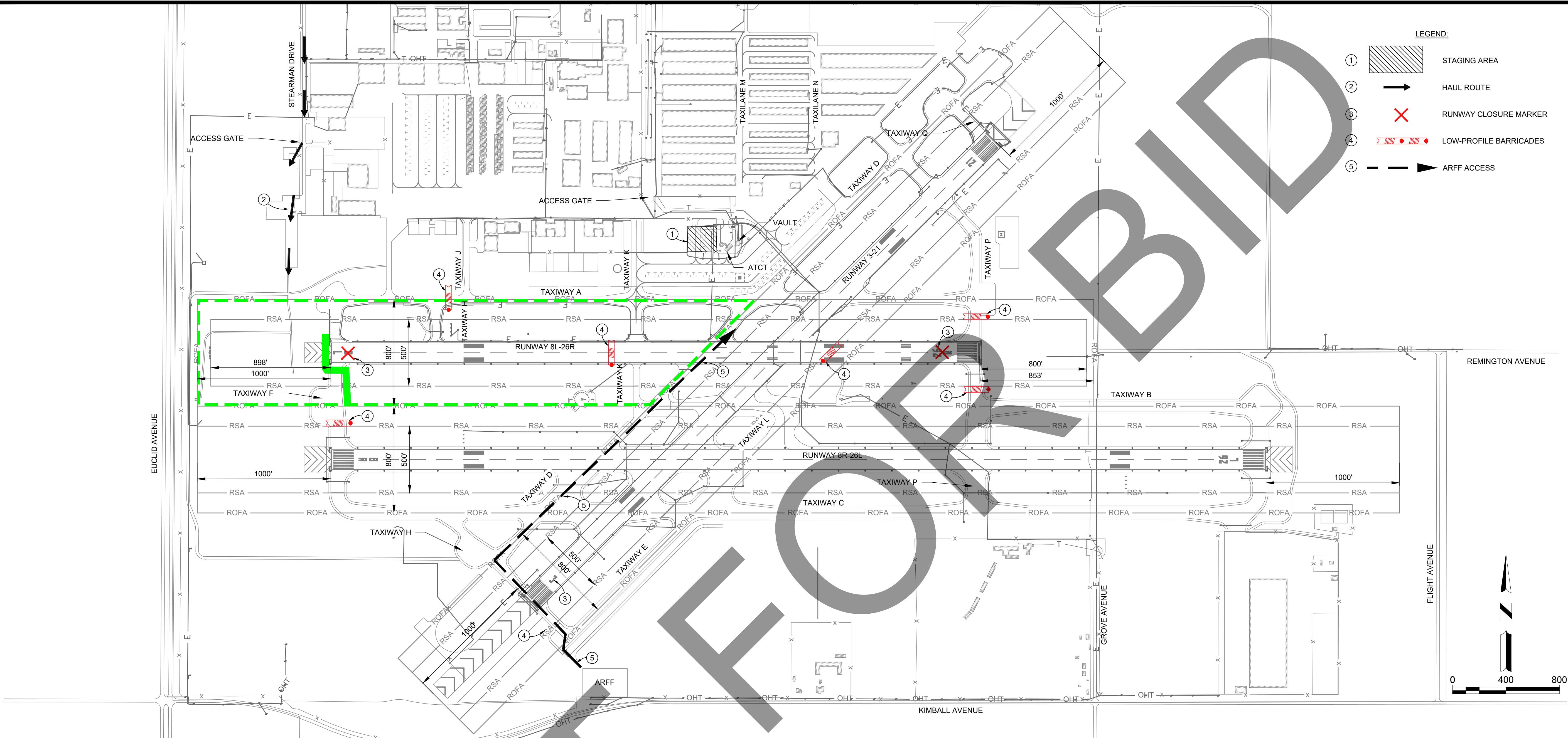
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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
MOB	N/A	NORMAL HOURS	• MOBILIZATION • SUBMITTALS • SCHEDULE COORDINATION	NONE	NONE	30 DAYS	
1	A	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 21	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	5 DAYS	
2	B	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 3	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	4 DAYS	
3	C	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8L	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	
4	D	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8R	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
5	E	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26R	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	

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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
6	F	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26L	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
7	G	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8R-26L AND RW 3-21 INTERSECTION	RW 8R-26L RW 3-21	RW 8L-26R TW A TO TW Q	1 DAY	
8	H	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8L-26R AND RW 3-21 INTERSECTION	RW 8L-26R RW 3-21	RW 8R-26L, TW A TO TW Q	2 DAYS	
9	I	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION BACK TO VAULT ROOM	APRON AREA, AS SHOWN ON PLANS	TW D (NORTH OF TW A, SOUTH OF TW N)	6 DAYS	APRON AREA TO BE CLOSED ONLY AS NEEDED.

WORK AREA LEGEND:

WORK AREA A	WORK AREA F
WORK AREA B	WORK AREA G
WORK AREA C	WORK AREA H
WORK AREA D	WORK AREA I
WORK AREA E	

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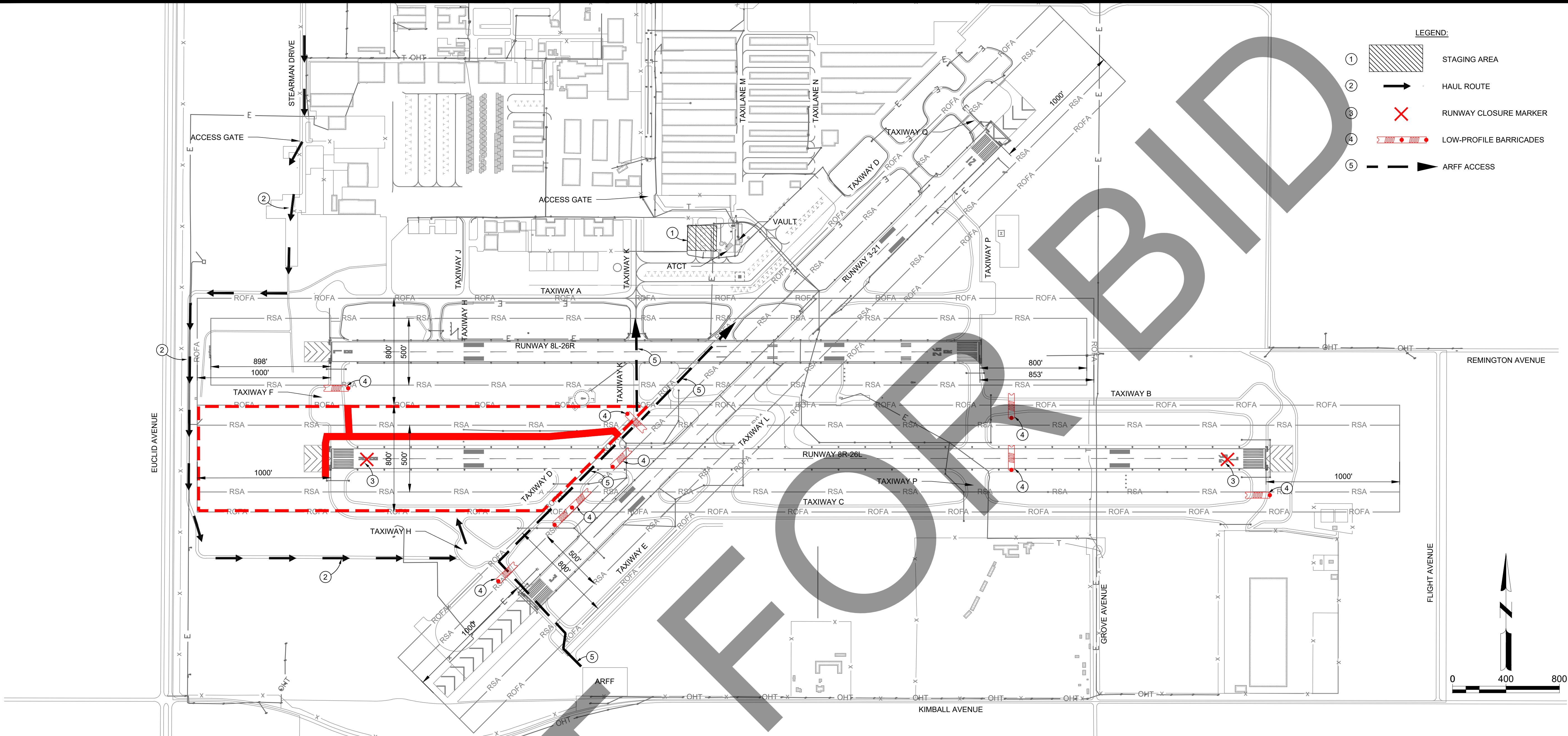
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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
MOB	N/A	NORMAL HOURS	• MOBILIZATION • SUBMITTALS • SCHEDULE COORDINATION	NONE	NONE	30 DAYS	
1	A	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 21	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	5 DAYS	
2	B	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 3	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	4 DAYS	
3	C	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8L	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	
4	D	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8R	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
5	E	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26R	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	

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7	G	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8R-26L AND RW 3-21 INTERSECTION	RW 8R-26L RW 3-21	RW 8L-26R TW A TO TW Q	1 DAY	
8	H	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8L-26R AND RW 3-21 INTERSECTION	RW 8L-26R RW 3-21	RW 8R-26L, TW A TO TW Q	2 DAYS	
9	I	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION BACK TO VAULT ROOM	APRON AREA, AS SHOWN ON PLANS	TW D (NORTH OF TW A, SOUTH OF TW N)	6 DAYS	APRON AREA TO BE CLOSED ONLY AS NEEDED.

WORK AREA LEGEND:

	WORK AREA A		WORK AREA F
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	WORK AREA C		WORK AREA H
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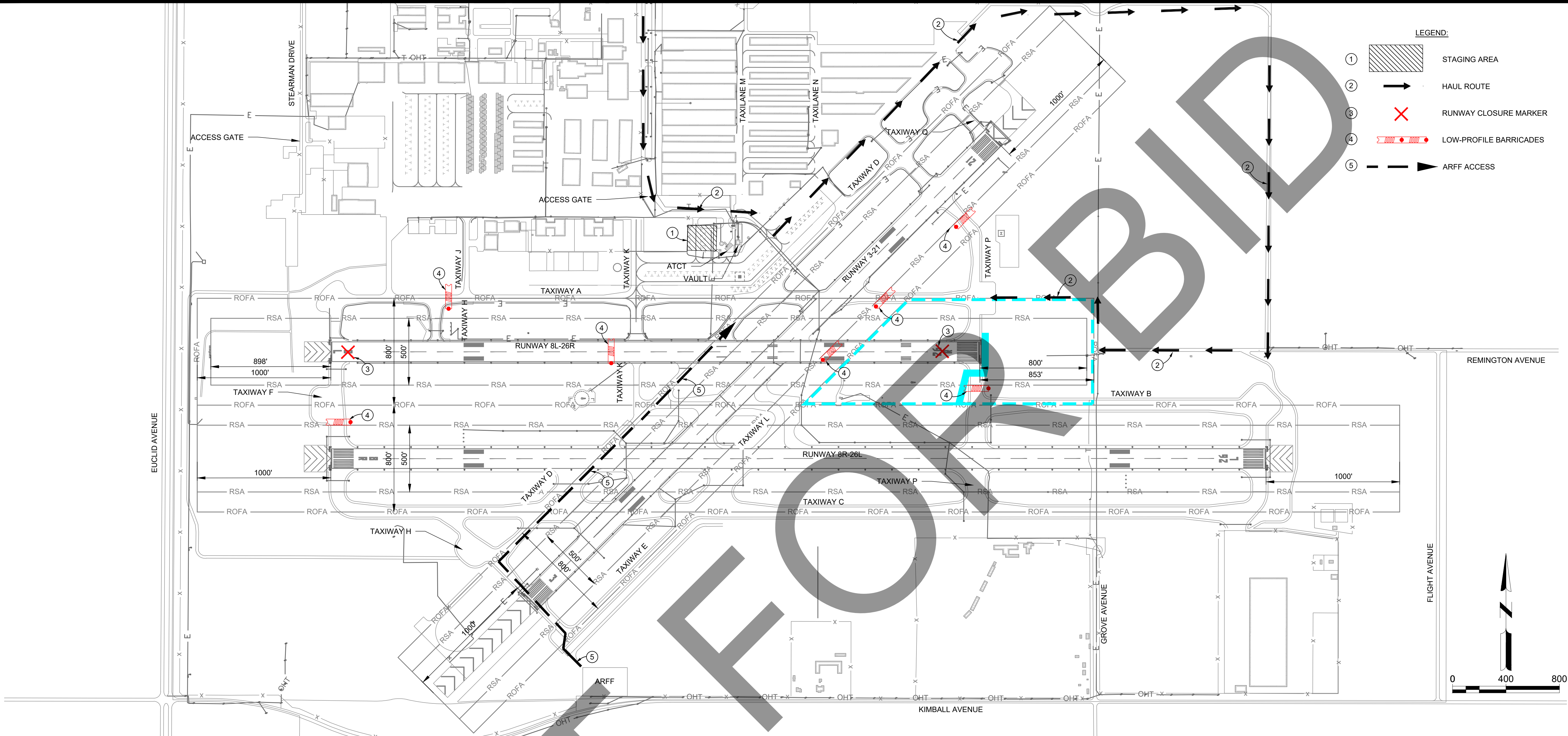
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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
MOB	N/A	NORMAL HOURS	• MOBILIZATION • SUBMITTALS • SCHEDULE COORDINATION	NONE	NONE	30 DAYS	
1	A	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 21	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	5 DAYS	
2	B	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 3	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	4 DAYS	
3	C	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8L	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	
4	D	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8R	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
5	E	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26R	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	

GENERAL PHASING NOTES:

- ALL PAVEMENT USED FOR HAULING SHALL BE SWEEPED/VACUUMED BY THE CONTRACTOR PRIOR TO OPENING TO AIRCRAFT TRAFFIC. AREAS TO BE OPENED SHALL BE CLEANED AND READY FOR INSPECTION BY AIRPORT OPERATIONS STAFF 30 MINUTES PRIOR TO PAVEMENT OPENING.
- MARKINGS DAMAGED BY HAULING SHALL BE PRESSURE WASHED AT NO ADDITIONAL COST AND A NEW COAT OF PAINT WITH BEADS APPLIED AT CONTRACT RATE.
- THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR WRITTEN NOTIFICATION TO THE AIRPORT PRIOR TO CLOSING THE NEXT WORK AREA.
- BARRICADE LOCATIONS ARE SCHEMATIC AND SHALL BE PLACED AT LIMIT OF HATCHING SHOWN ON PLAN UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR AIRPORT OPERATIONS.

PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
6	F	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26L	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
7	G	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8R-26L AND RW 3-21 INTERSECTION	RW 8R-26L RW 3-21	RW 8L-26R TW A TO TW Q	1 DAY	
8	H	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8L-26R AND RW 3-21 INTERSECTION	RW 8L-26R RW 3-21	RW 8R-26L, TW A TO TW Q	2 DAYS	
9	I	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION BACK TO VAULT ROOM	APRON AREA, AS SHOWN ON PLANS	TW D (NORTH OF TW A, SOUTH OF TW N)	6 DAYS	APRON AREA TO BE CLOSED ONLY AS NEEDED.

WORK AREA LEGEND:

WORK AREA A	WORK AREA F
WORK AREA B	WORK AREA G
WORK AREA C	WORK AREA H
WORK AREA D	WORK AREA I
WORK AREA E	

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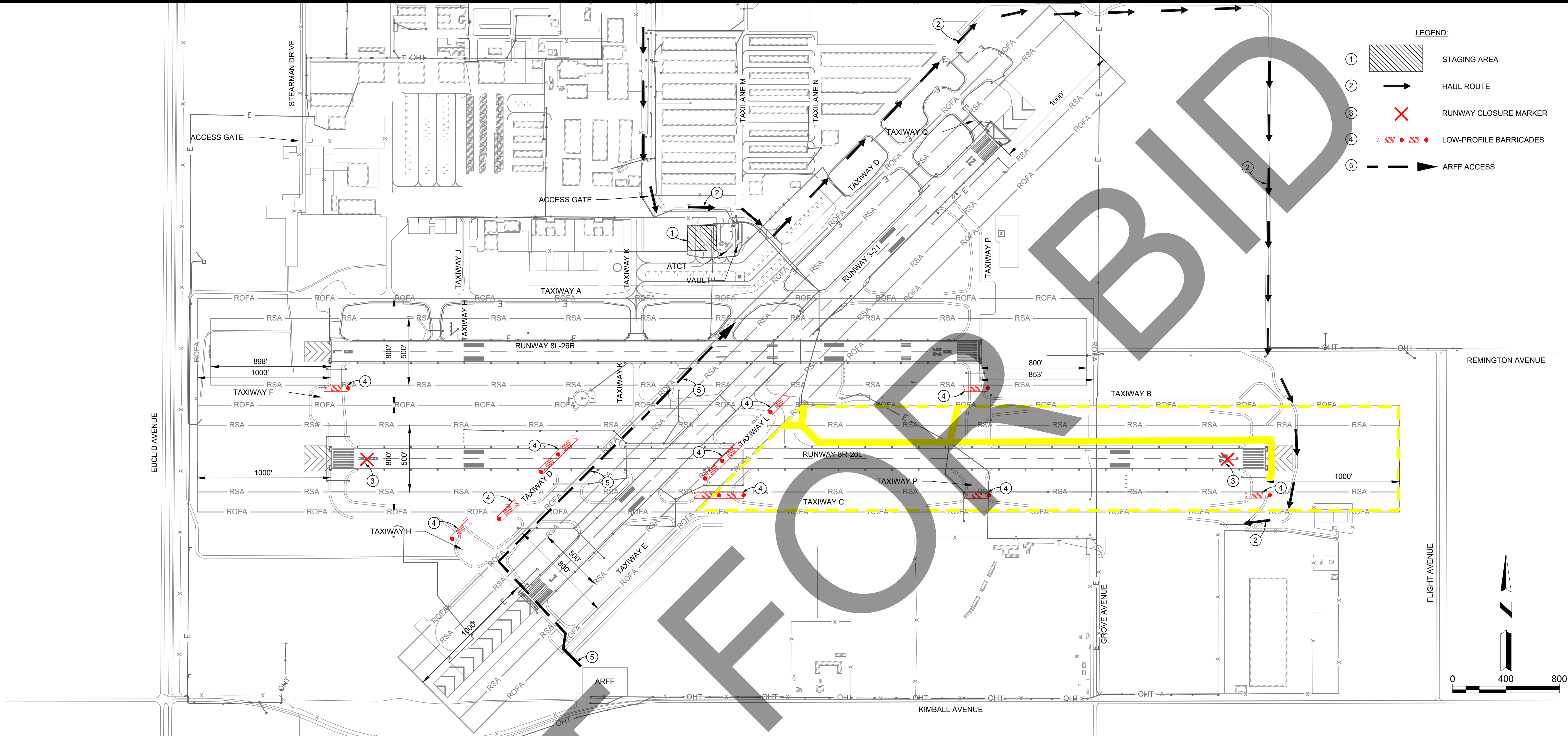
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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
MOB	N/A	NORMAL HOURS	• MOBILIZATION • SUBMITTALS • SCHEDULE COORDINATION	NONE	NONE	30 DAYS	
1	A	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 21	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	5 DAYS	
2	B	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 3	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	4 DAYS	
3	C	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8L	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	
4	D	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8R	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
5	E	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26R	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	

GENERAL PHASING NOTES:

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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
6	F	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26L	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
7	G	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8R-26L AND RW 3-21 INTERSECTION	RW 8R-26L RW 3-21	RW 8L-26R TW A TO TW Q	1 DAY	
8	H	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8L-26R AND RW 3-21 INTERSECTION	RW 8L-26R RW 3-21	RW 8R-26L, TW A TO TW Q	2 DAYS	
9	I	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION BACK TO VAULT ROOM	APRON AREA, AS SHOWN ON PLANS	TW D (NORTH OF TW A, SOUTH OF TW N)	6 DAYS	APRON AREA TO BE CLOSED ONLY AS NEEDED.

WORK AREA LEGEND:

	WORK AREA A		WORK AREA F
	WORK AREA B		WORK AREA G
	WORK AREA C		WORK AREA H
	WORK AREA D		WORK AREA I
	WORK AREA E		

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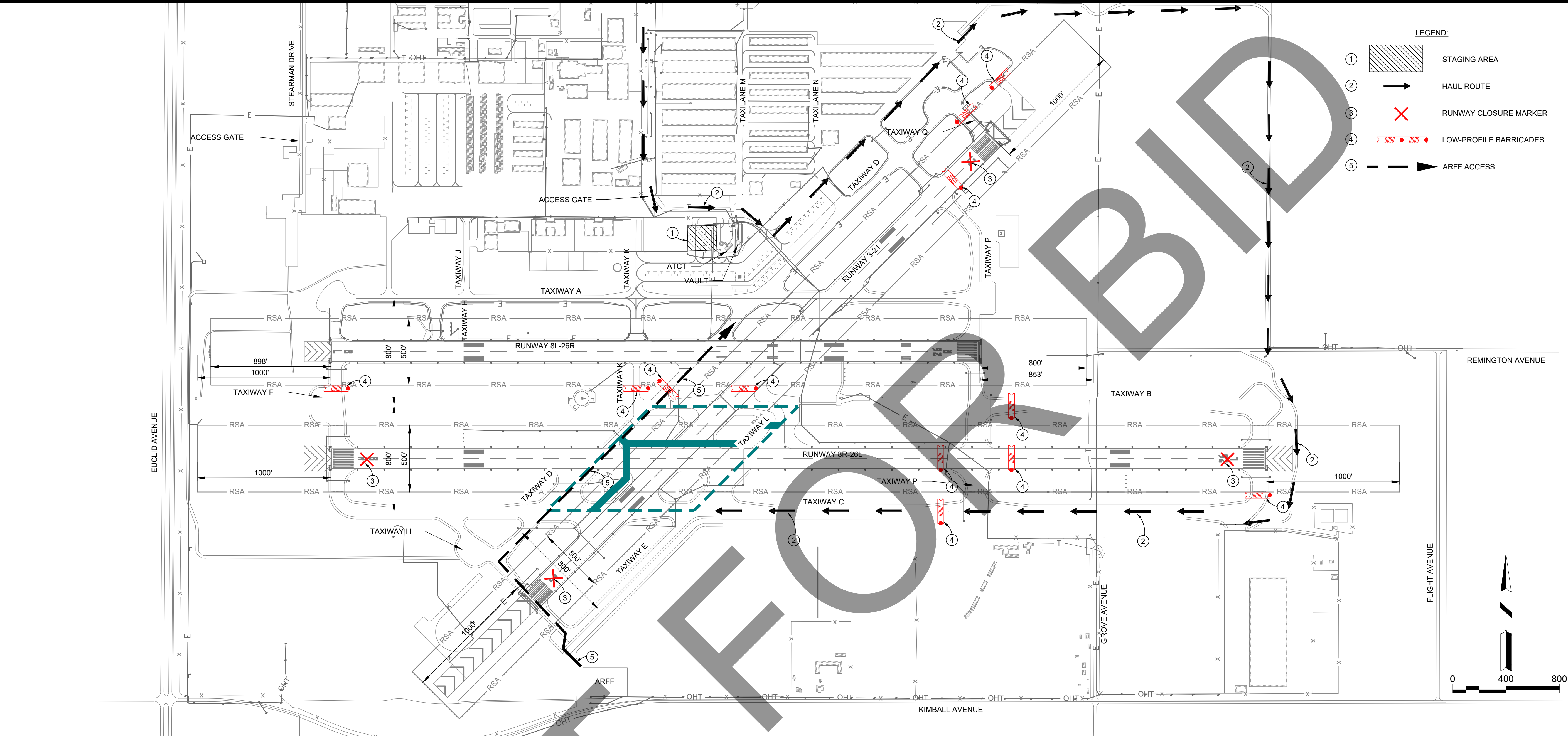
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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
MOB	N/A	NORMAL HOURS	• MOBILIZATION • SUBMITTALS • SCHEDULE COORDINATION	NONE	NONE	30 DAYS	
1	A	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 21	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	5 DAYS	
2	B	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 3	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	4 DAYS	
3	C	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8L	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	
4	D	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8R	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
5	E	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26R	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	

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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
6	F	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26L	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
7	G	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8R-26L AND RW 3-21 INTERSECTION	RW 8R-26L RW 3-21	RW 8L-26R TW A TO TW Q	1 DAY	
8	H	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8L-26R AND RW 3-21 INTERSECTION	RW 8L-26R RW 3-21	RW 8R-26L, TW A TO TW Q	2 DAYS	
9	I	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION BACK TO VAULT ROOM	APRON AREA, AS SHOWN ON PLANS	TW D (NORTH OF TW A, SOUTH OF TW N)	6 DAYS	APRON AREA TO BE CLOSED ONLY AS NEEDED.

WORK AREA LEGEND:

	WORK AREA A		WORK AREA F
	WORK AREA B		WORK AREA G
	WORK AREA C		WORK AREA H
	WORK AREA D		WORK AREA I
	WORK AREA E		

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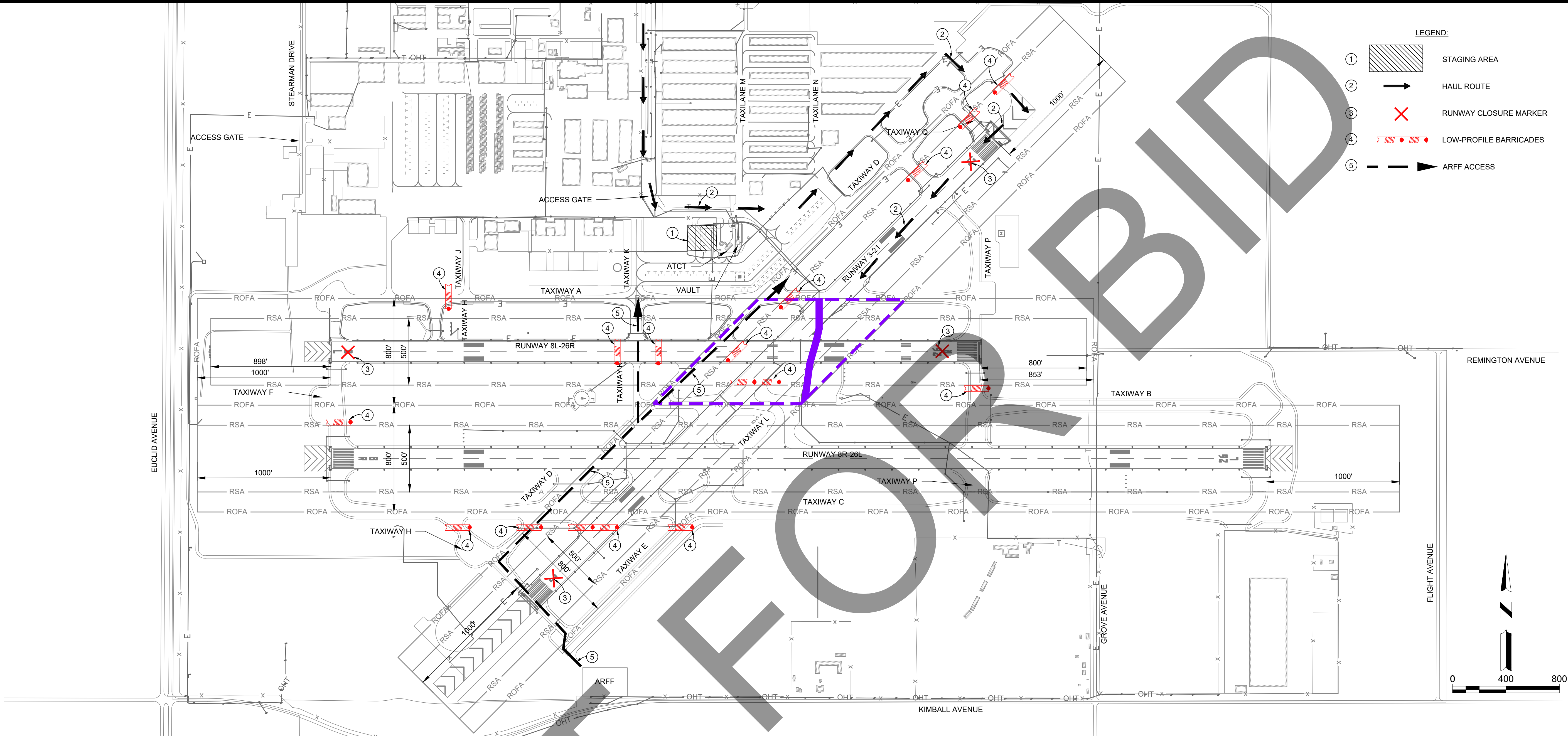
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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
MOB	N/A	NORMAL HOURS	• MOBILIZATION • SUBMITTALS • SCHEDULE COORDINATION	NONE	NONE	30 DAYS	
1	A	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 21	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	5 DAYS	
2	B	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 3	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	4 DAYS	
3	C	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8L	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	
4	D	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8R	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
5	E	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26R	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	

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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
6	F	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26L	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
7	G	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8R-26L AND RW 3-21 INTERSECTION	RW 8R-26L RW 3-21	RW 8L-26R TW A TO TW Q	1 DAY	
8	H	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8L-26R AND RW 3-21 INTERSECTION	RW 8L-26R RW 3-21	RW 8R-26L, TW A TO TW Q	2 DAYS	
9	I	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION BACK TO VAULT ROOM	APRON AREA, AS SHOWN ON PLANS	TW D (NORTH OF TW A, SOUTH OF TW N)	6 DAYS	APRON AREA TO BE CLOSED ONLY AS NEEDED.

WORK AREA LEGEND:

WORK AREA A	WORK AREA F
WORK AREA B	WORK AREA G
WORK AREA C	WORK AREA H
WORK AREA D	WORK AREA I
WORK AREA E	

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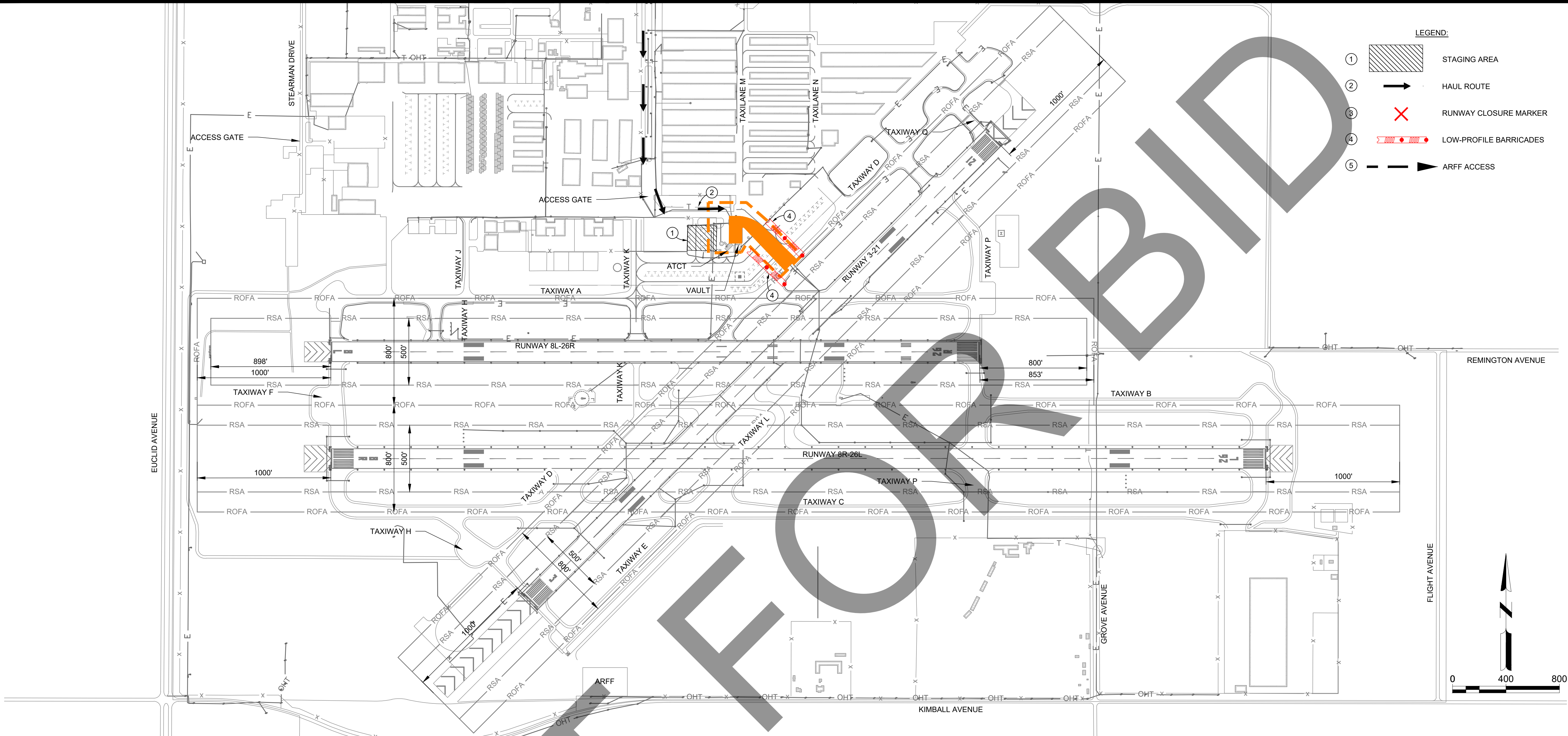
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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
MOB	N/A	NORMAL HOURS	• MOBILIZATION • SUBMITTALS • SCHEDULE COORDINATION	NONE	NONE	30 DAYS	
1	A	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 21	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	5 DAYS	
2	B	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 3	RW 3-21	RW 8L-26R, RW 8R-26L TW A TO TW Q	4 DAYS	
3	C	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8L	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	
4	D	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 8R	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
5	E	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26R	RW 8L-26R	RW 8R-26L, RW 3-21 TW A TO TW Q	3 DAYS	

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PHASE	WORK AREA	WORK HOURS	WORK	PAVEMENT CLOSURES FOR PHASE	OPERATIONAL THRU TRAFFIC PER WORK AREA	CALENDAR DAYS	WORK AREA NOTES
6	F	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION • CABLE INSTALLATION • REIL INSTALLATION AT RW 26L	RW 8R-26L	RW 8L-26R, RW 3-21 TW A TO TW Q	5 DAYS	
7	G	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8R-26L AND RW 3-21 INTERSECTION	RW 8R-26L RW 3-21	RW 8L-26R TW A TO TW Q	1 DAY	
8	H	M-F 07:00 - 17:00	• CABLE AND INSTALLATION AT RW 8L-26R AND RW 3-21 INTERSECTION	RW 8L-26R RW 3-21	RW 8R-26L, TW A TO TW Q	2 DAYS	
9	I	M-F 07:00 - 17:00	• CABLE & CONDUIT INSTALLATION BACK TO VAULT ROOM	APRON AREA, AS SHOWN ON PLANS	TW D (NORTH OF TW A, SOUTH OF TW N)	8 DAYS	APRON AREA TO BE CLOSED ONLY AS NEEDED.

WORK AREA LEGEND:

	WORK AREA A		WORK AREA F
	WORK AREA B		WORK AREA G
	WORK AREA C		WORK AREA H
	WORK AREA D		WORK AREA I
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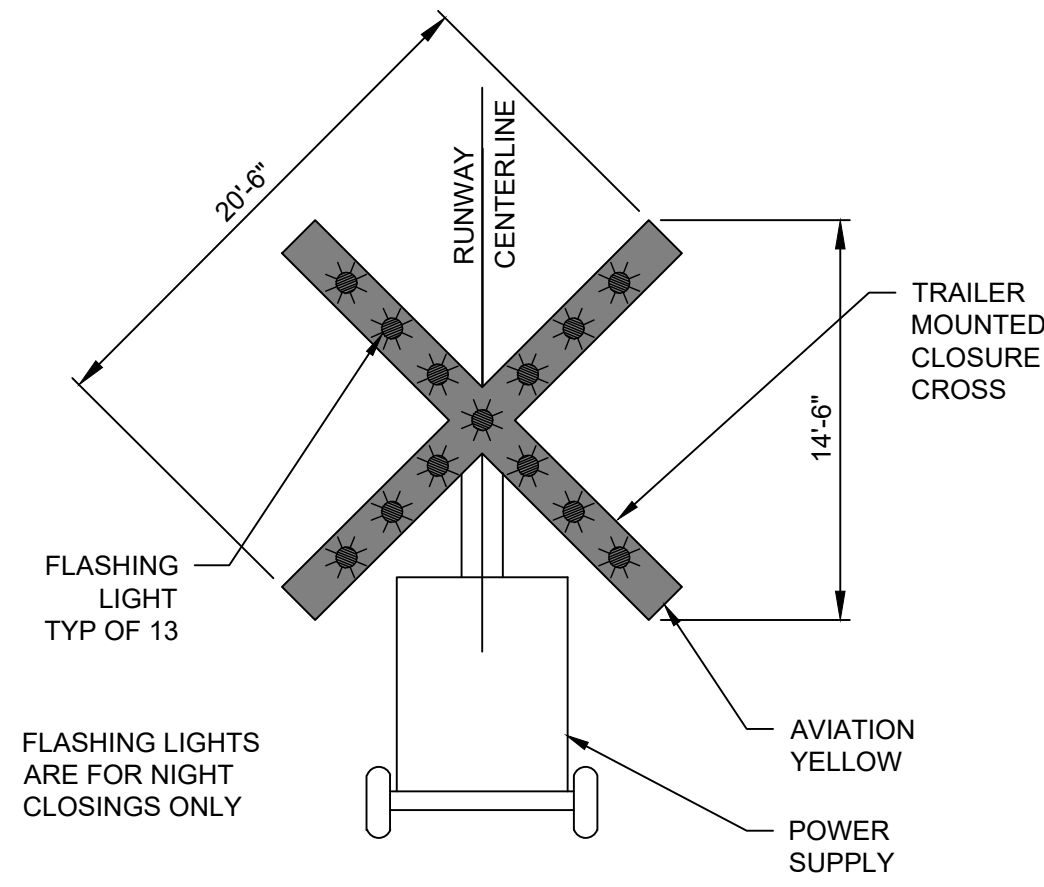
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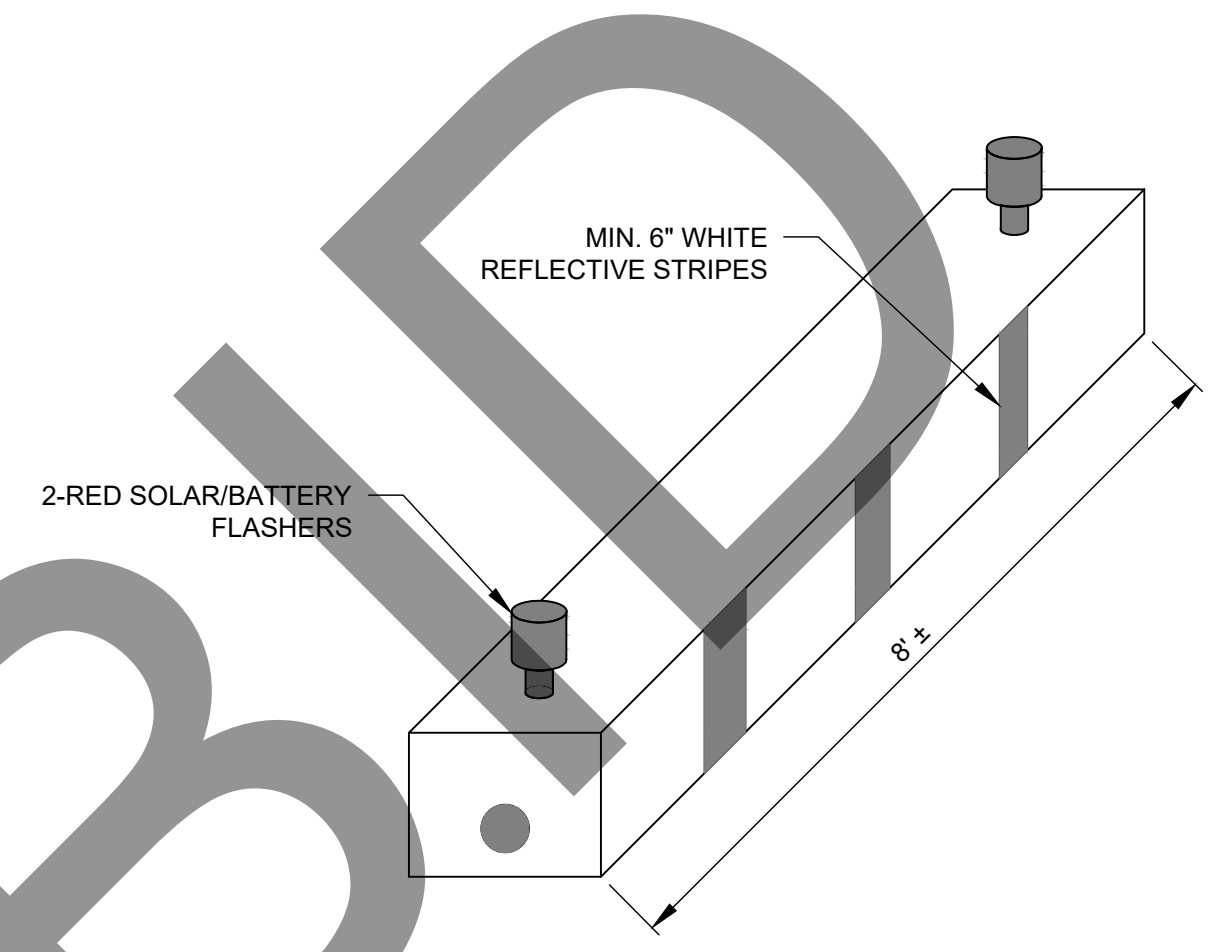
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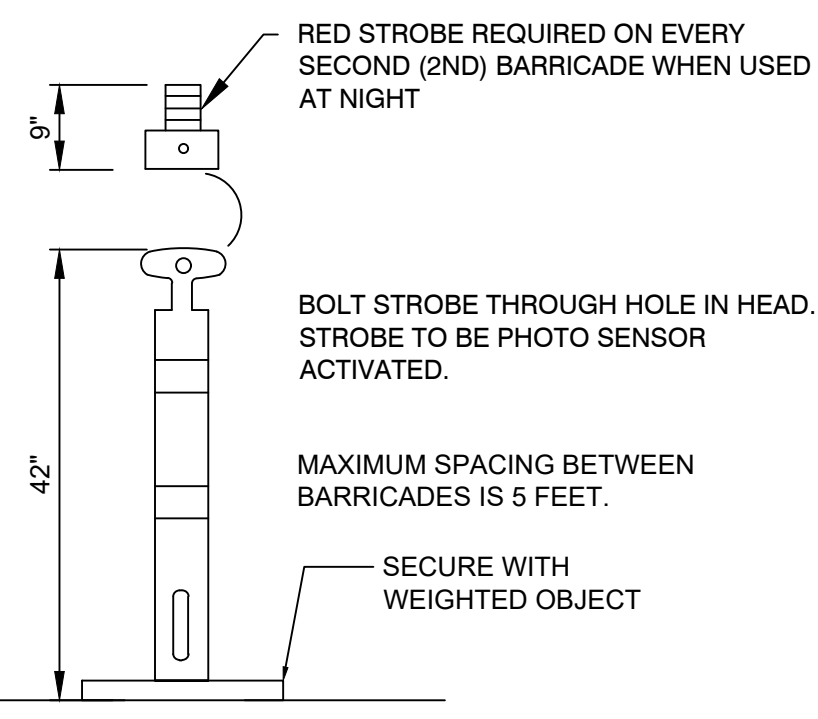
- NOTES:
1. TEMPORARY RUNWAY CLOSURE MARKERS TO BE SUPPLIED, AND PLACED BY THE AIRPORT. DISTRICT WILL BE RESPONSIBLE FOR PLACING AND MAINTAINING CLOSURE MARKERS.

3 **RUNWAY CLOSURE MARKERS (TRAILER MOUNTED)**
NO SCALE



- NOTES:
1. BARRICADES SHALL BE LOW PROFILE BARRIER, UV RESISTANT POLYETHYLENE WATER FILLED, ORANGE AND WHITE, WITH FLASHING SOLAR AND BATTERY POWERED LIGHTS. BARRICADES SHALL BE SPACED A MAXIMUM OF 5 FEET APART UNLESS DIRECTED OTHERWISE BY THE DISTRICT.

1 **LOW PROFILE BARRICADE DETAIL**
NO SCALE



2 **DELINEATOR DETAIL**
NO SCALE

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CHINO AIRPORT
REILS FOR RUNWAY 3-21, RUNWAY 8L-26R,
AND RUNWAY 8R-26L PROJECT AND
VAULT UPGRADE PROJECT
7000 MERRILL AVE
CHINO, CA 91710

ISSUED
ISSUED FOR BID

NOT FOR CONSTRUCTION

M&H NO.: 4665437-211181.01
DATE: FEBRUARY 28, 2023
DESIGNED BY: CJM
DRAWN BY: SKN
CHECKED BY: BWB
DO NOT SCALE DRAWINGS

SHEET CONTENTS
CONSTRUCTION
SAFETY AND PHASING
DETAILS

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NOT FOR BID