



**COUNTY** *of* **VENTURA**

**Harbor Department**

PLANS & SPECIFICATIONS  
FOR

Channel Islands Harbor  
PARKING LOT REHABILITATION – KIDDIE BEACH

Specification Number: HD 24-01

Project Number: HD 24-01

October 11, 2023

**ADDENDUM #1- 11/06/2023**

**ADDENDUM #2 & #3- 11/09/2023**

**COUNTY OF VENTURA  
HARBOR DEPARTMENT**

**NOTICE INVITING BIDS, PROPOSAL FORM, & SPECIFICATIONS**

**FOR**

**PROJECT NAME: KIDDIE BEACH PARKING LOT REHABILITATION- CHANNEL ISLANDS HARBOR**

**LOCATION: KIDDIE BEACH, 4301 S. VICTORIA AVE., OXNARD, CA 93035**

**SPEC. NO.: HD 24-01**

**DESIGNED BY: ENCOMPASS CONSULTANT GROUP**

**REVIEWED BY: HARBOR DEPARTMENT**

**PROJECT ADMINISTRATOR: DANIELLE TARR**

**PROJECT MANAGER: JIM AZBELL**

**APPROVED BY:**

**X**

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Michael Tripp  
Director- Harbor Department

**BIDS WILL BE RECEIVED ON:  
NOVEMBER 13<sup>TH</sup>, 2023  
AND OPENED AT 2:00 P.M  
at County of Ventura Harbor Patrol  
Public Counter,  
Channel Islands Harbor,  
3900 Pelican Way, Oxnard,  
California 93035**

Construction bidding documents, including plans, specifications, addenda and any supplementary documents are now available on the County of Ventura Harbor Department Web Site. Printed copies may also be purchased at COAST REPROGRAPHICS, 1710 DONLON STREET, STE 2, VENTURA, CA 93003

**NOTICE TO BIDDERS, SUBCONTRACTORS AND SUPPLIERS**  
**SOURCES OF INFORMATION**

**DURING BIDDING PERIOD**

PLAN HOLDERS LIST & OTHER INFORMATION IS AVAILABLE ON THE INTERNET AT:  
[www.coastplanroom.com](http://www.coastplanroom.com) and [www.channelslandsharbor.org](http://www.channelslandsharbor.org)

PROJECT DOCUMENTS ON PLAN ROOMS AT:

<https://www.coastplanroom.com/jobs/public?ver=1.1>

**TECHNICAL QUESTIONS** on plans and specifications

Please **EMAIL questions** early in the bidding period as an addendum may be required.

**FOR BID QUESTIONS, or to confirm number of Addenda issued,**

**EMAIL TO:**

[danielle.tarr@ventura.org](mailto:danielle.tarr@ventura.org)

**Spec Number must be referenced on all bid questions**

**Please do not call other staff members or consultant.**

Note that our consultants are directed to refer all calls to the Project Managers.

**DIRECTIONS TO VENTURA COUNTY HARBOR DEPARTMENT**

**From US101 (Ventura Freeway)**, take Victoria Ave off ramp, south (towards beach) on S. Victoria Ave. then right on Pelican Way.

**Harbor Patrol** The public counter is located in the Harbor Patrol temporary trailer at the end of the cul-de-sac where bids can be placed in the **bid box**.

**ONLY AFTER BID OPENING**

**BID RESULTS** are available on the internet site shown above, usually within **24 hours after** bids are opened and Include abstracts of unit prices, totals of all bids & subcontractor's list for low & 2<sup>nd</sup> bidder.

**LOW BIDDER - ONLY AFTER AWARD OF CONTRACT**

**ALL QUESTIONS** concerning project **AFTER AWARD** should be directed to the Project Manager named in the Notice of Award

Any other information can be requested at (805) 973-5950

COUNTY OF VENTURA- Channel Islands Harbor  
PARKING LOT REHABILITATION – KIDDIE BEACH  
SPECIFICATION NO.: HD24-01 PROJECT NO: HD24-01

TABLE OF CONTENTS

Notice of Inviting Bids.....	1 page
Proposal.....	8 pages
Prevailing Rates of Wages.....	1 page
Excerpts from the California Labor Code.....	13 pages
Non-discrimination Assurances.....	2 pages
Excerpts from PCC 9204 January 1, 2017.....	4 pages
Ventura County Standard Specifications Table of Contents.....	8 pages
Ventura County Standard Specifications.....	75 pages
Special Provisions – Table of Contents.....	1 page
Special Provisions (1000-1019) .....	83 pages
Appendix K – Unlisted Subcontractor’s List.....	1 page
Plans.....	14 sheets

**COUNTY OF VENTURA**  
**NOTICE INVITING FORMAL BIDS**

Sealed bids will be received in the bid box at the County of Ventura – Harbor Department, Harbor Patrol Public Counter, 3900 Pelican Way, Oxnard, California 93035, until **2:00 p.m.** on **NOVEMBER 13<sup>TH</sup>, 2023**, and afterwards publicly opened, for **PARKINGLOT REHABILITATION – KIDDIE BEACH**, for Specification No. **HD24-01**, which consists of parking lot resurfacing, sidewalk and ADA path of travel improvements, Driveway replacement, and new power service from SCE to replace existing. New pedestrian lighting and replacement of exterior lighting and new EVCS.

The estimated cost of construction is \$ **220,000**.

The plans, specifications and proposal forms for this project are filed in the office of the Ventura County Harbor Department and are, by reference, made a part of this Notice. Construction bidding documents, including plans, specifications, addenda and any supplementary documents are now available on the project web site at: <https://www.coastplanroom.com/jobs/public?ver=1.1>

where the documents may be viewed, downloaded and printed.

Printed copies of the document can be purchased at most commercial printing companies that have internet access.

For general information concerning bidding document, call 805-973-5950. For technical questions concerning the bidding documents email: [Danielle.tarr@ventura.org](mailto:Danielle.tarr@ventura.org) PLEASE DO NOT CALL THE UNDERSIGNED.

Bids must be submitted on the proposal form furnished with said documents. Subcontractor list must include a valid Contractor's License Number. Contractor and any subcontractors must be registered with the Department of Industrial Relations prior to bid time and shall be verified during bid verification processes.

Each bid must be accompanied by a bid guarantee in the amount of not less than 10% of the amount bid, **PAYABLE TO THE COUNTY OF VENTURA** and guaranteeing that the bidder will enter into a contract in accordance with the terms of the bidding documents if award is made. The bid guarantee shall be in one of the following forms: a bid bond written by an admitted surety insurer on the form included with the Proposal form, a cashier's check drawn by a National bank, a check certified by a National bank or cash. An electronically transmitted copy of the bid bond form, included in the Proposal form, may be used but the form must have the original signatures of the principal and surety. Copies of the completed bond will not be accepted.

Bidders must have a Class **A** California Contractors license, and will be required to furnish a Performance Bond and a Payment Bond, each in the amount of 100% of the contract price.

In accordance with Section 22300 of the Public Contract Code, securities may be substituted for funds withheld.

Bidders, contractors, and other interested parties can obtain wage rates pertaining to Ventura County projects at the link provided below.

California general prevailing wage rates for construction can be obtained from the following Web site: <http://www.dir.ca.gov/DLSR/PWD/index.htm>.

The awarded contractor must post copies of the prevailing wage determinations at each job site.



## **PROPOSAL** **Instruction to Bidders**

- 1. LICENSING OF BIDDER.** Before submitting bids, bidders shall be licensed in accordance with the provisions of Sections 7000 through 7145 of the Business and Professions Code of the State of California in the classification required for the work bid on. The bidder's license number, classification, and expiration date shall be inserted on **page 7** of the proposal form. The bidder's name shall correspond in all respects with the name shown on the license. License numbers and names are checked with the State.
- 2. SITE INSPECTION.** Personally visit the worksite before submitting your bid to ascertain the existence of any surface or subsurface conditions affecting the cost of the work.
- 3. INTERPRETATION AND QUESTIONS.** Carefully review the plans and specifications for any errors, omissions, or ambiguities. If you discover any or have specific questions, notify the Harbor Department far enough in advance of the bid opening to allow time for the issuance of appropriate written addenda, if necessary. Send the notification about any errors, omissions, ambiguities or questions to [danielle.tarr@ventura.org](mailto:danielle.tarr@ventura.org). Written addenda shall be the sole means for modifying the plans and/or specifications prior to the bid opening. The Harbor shall not be bound by oral communications purportedly modifying or interpreting the plans and/or specifications regardless of when or by whom such oral communications are made and you should not rely upon such oral communications in preparing your bid.
- 4. BID ITEMS.** State in figures the unit prices, lump sum prices and extensions as indicated which shall be the prices for which you propose to supply all materials and services and perform all work required by the plans and specifications. All items described are to be construed as complete and in place. Include in the bid amount for items listed on the proposal form the cost of performing all work shown on the plans or required by the specifications for which a specific bid item is not provided. Bid on all items listed under Schedule of Work and Prices unless otherwise indicated in the proposal form.
- 5. SIGNING OF BID.** Fill in all indicated blanks in this proposal using typewriter or ink and sign with ink. Proposals signed by an agent other than an owner, partner or corporate officer shall be accompanied by a power-of-attorney. Proposal form must be dated.
- 6. NON-COLLUSION AFFIDAVIT.** The non-collusion affidavit required by Public Contract Code 7106 is included on **page 5** of this Proposal.
- 7. BID FORM NOT TO BE ALTERED.** Do not change the wording of this proposal. Any additions, deletions, conditions, limitations or provisions by the bidder will render the proposal irregular and may cause its rejection.
- 8. CORRECTING BID.** Explain over your signature any erasures or deletions of information entered by the bidder in this proposal. Modifications submitted separately from this form will not be accepted.

9. **BID GUARANTEE.** Each bid must be accompanied by a bid guarantee in the amount of not less than 10% of the amount bid and guaranteeing that the bidder will enter into a contract in accordance with the terms of the bidding documents if award is made to him. The bid guarantee shall be in one of the following forms: A bid bond written by an admitted surety insurer on the form included with the proposal form, a cashier's check drawn by a national bank, a check certified by a national bank or cash. An electronically transmitted copy (FAX) of the bid bond form included in the proposal form may be used, but the form must have the original signatures of the principal and surety. A FAX of the completed bond will not be accepted. Note: Performance and Payment Bonds are required from the bidder to whom a contract is awarded. See specifications Subsection 2-4 for contract bond requirements including limitations on the sureties that may issue the bonds.

10. **SUBMITTING BID.** Submit your bid on one copy only of this proposal form, with addenda acknowledged by inserting the addenda numbers on **page 7** of this proposal and with bid guarantee attached, in a sealed envelope addressed to:

Harbor Department, County of Ventura, Harbor Patrol Public Counter,  
Temporary Trailer at 3900 Pelican Way., Oxnard, California 93035. For proper handling, mark envelope as "SEALED BID", and show the project title and the bidder's name and address. Do not enclose other documents in the bid envelope.

**IMPORTANT:** Proposals received that are not signed will not be considered.

Late bids will not be opened or considered.

Bids must be on this form. Electronically transmitted bids, bid modifications or bid withdrawals will not be considered.

Notwithstanding anything stated, directed or indicated in the other bidding documents, the only items to be included with this proposal are:

1. This proposal form, signed and dated with addenda acknowledged.
2. The bid bond with original signatures of surety representative and contractor, or other bid guarantee as specified in 9 above.
3. Subcontractors and off-job fabricators list completed in accordance with Public Contract Code Section 4104.

11. **TIME OF BID CLOSURE.** The bid box will be closed promptly at the time specified on the first sheet of the proposal form. The person opening bids will not accept bids that are not in the bid box at closing time. Time can be obtained from <http://www.time.gov/timezone.cgi?Pacific/d/-8> (local standard time). Note that clocks in the building may not be set to the correct time and should not be relied upon.

12. **DELIVERY OF BID.** Bids delivered in person must be placed in the bid box at the Harbor Patrol Public Counter located at 3900 Pelican Way, Oxnard, CA 93035. The Harbor Department, Public Counter is located in the Channel Islands Harbor (CIH) Harbor Patrol temporary trailer, which is adjacent to the CIH entrance channel off Pelican Way. The CIH Harbor Patrol temporary trailer is reached by taking the Victoria Avenue exit off the 101 Freeway, proceed south approximately 5 miles to Channel Islands Boulevard, continue on Victoria Avenue approximately 1 mile to Pelican Way and turn right. The CIH Harbor Patrol temporary trailer is at the end of Pelican Way on the right.

**13. MAILED BIDS (Including Express Delivery).** Bids received by the Harbor Department prior to 2:00 pm on the bid opening date will be considered to have been placed in the bid box on time, whether or not actually delivered to the bid box on time. U. S. Postal Service Special delivery, Registered and Certified mail may slow actual receipt of bids. Bidder is responsible for sending bid early enough to insure delivery to the County on time.

Mark bids, not placed directly in the bid box, in large letters on the outside of the delivery envelope "SEALED BID" and show the Spec no.

Electronically transmitted bids or modifications will not be considered.

**14. WITHDRAWAL OF PROPOSAL.** Proposals may be withdrawn by the bidder prior to the time stated for opening bids upon written request, signed by the bidder or his authorized agent and submitted in the same manner as a bid. To retrieve a bid from the bid box may take 10 or more minutes as it requires a written request to withdraw the bid, the positive identification of the person requesting the withdrawal, and the opening of the bid box.

**15. ERRORS.** Bidder will not be released on account of errors. Where a discrepancy occurs between unit prices and totals, the unit price shall govern in computing the total. If a unit price is omitted, it will be determined from the item total, if entered. If both the unit price and line total for any item are omitted, the bid will be considered non-responsive in accordance with Paragraph 4 above. If the total Bid Price is not equal to the sum of the Item Totals (as corrected) the Total Bid Price will be corrected. If no monetary symbol (\$ or ¢) is entered with a unit price, lump sum or extension, a dollar sign will be assumed to be the bidder's intent.

**16. SUBCONTRACTOR LICENSE NUMBERS.** License numbers for subcontractors must be provided at the time the bid is received.

**17. PUBLIC WORKS CONTRACTOR REGISTRATION PROGRAM.** No contractor or subcontractor may be listed on a bid proposal 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 requirement for bid purposes only under Labor Code section 1771.1(a)]

No contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5

**18. LABOR COMPLIANCE MONITORING.** This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The Prime Contractor shall post job site notices prescribed by regulation.

(See Chapter 8, California Code Regulation section 16451(d) for notice that previously was required for projects monitored by the Compliance Monitoring Unit.)

## PROPOSAL

I, the person whose signature is affixed to **page 7** of this proposal, submit this proposal to the **Board of Supervisors of the County of Ventura** and hereby declare:

1. That the bidder has read this proposal and has abided by and agrees to the conditions herein and has carefully examined the project plans and read the specifications and does hereby propose to furnish all materials and do all the work required to complete the work in accordance with the plans and specifications for the unit prices or lump sums named in the Schedule of Work and Prices.

2. That the addenda indicated on **page 7** of this proposal are acknowledged.

3. That the bidder, as Principal, acknowledges himself as being bound by the attached bond or other acceptable bid guarantee.

4. **NONCOLLUSION DECLARATION**

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

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

Signature of Officer \_\_\_\_\_

Printed Name of officer: \_\_\_\_\_

## PROPOSAL

Contractor's Name \_\_\_\_\_

### List of Subcontractors

Listing shall comply with the provisions of California Public Contract Code, Section 4104.

<b>Name of Subcontractor</b>	<b>Contractor's License Number</b>	<b>Business Address</b>	<b>Items of Work</b>

If more space is needed, attach additional sheets.

Public Contract Code Section 4104 provides that bidders must list:

(a)(1) The name, the location of the place of business, and the California contractor license number of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater.

(b) The portion of the work that will be done by each subcontractor under this act. The prime contractor shall list only one subcontractor for each portion as is defined by the prime contractor in his or her bid.

**NOTE: Contractor shall perform, with its own organization, contract work amounting to at least 50 percent of the Contract Price. See Specifications Section 2-3.2 for exceptions.**



Enter }  
Name & }  
Address } of  
Bonding }  
Company }

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS: That we \_\_\_\_\_

\_\_\_\_\_, Principal,

and \_\_\_\_\_

\_\_\_\_\_, Surety, are held and firmly bound  
unto

**COUNTY OF VENTURA** Obligee,

in the sum of Ten Percent of the total amount of the Bid for the payment of which we bind ourselves,  
our legal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has submitted or is about to submit a bid or proposal to Obligee on a contract for

**PARKING LOT REHABILITATION – KIDDIE BEACH**

NOW, THEREFORE, if that contract be awarded to principal and principal shall, within such time as specified, duly execute the contract in the prescribed form and deliver the same to obligee with all required bonds/performance securities, certificates of insurance and such other items as required in the bidding or contract documents then this obligation shall be null and void; otherwise to remain in full force and effect, and if the contract is awarded to principal and principal fails, within the time specified, to duly execute the contract in the prescribed form and deliver the same to obligee with all said required items, then surety shall pay obligee the full sum of this bond.

Surety, for value received, hereby agrees that no extension of time, change, alteration, modification, or addition to the bidding or contract documents, or of the work required thereunder, shall release or exonerate surety on this bond or in any way affect the obligation of this bond; and surety does hereby waive notice of same.

Signed, sealed and dated

\_\_\_\_\_  
(Principal)

by \_\_\_\_\_ (Seal)

\_\_\_\_\_  
(Surety)

by \_\_\_\_\_  
Attorney-in-Fact

**INDICATE COMPLETE ADDRESS OF SURETY TO WHICH  
CORRESPONDENCE CONCERNING THIS BOND SHOULD BE  
DIRECTED.**

Telephone No. \_\_\_\_\_

## **PREVAILING WAGE REQUIREMENTS**

**COUNTY OF VENTURA  
HARBOR DEPARTMENT**

**PREVAILING RATES OF WAGES**

As provided in Subsection 7-2.2 of these specifications, and in accordance with Section 1770 (*Amended by Stats. 2017, Ch. 28, Sec. 17. (SB 96) Effective June 27, 2017*), et. seq. of the California Labor Code, determinations of the generally prevailing wages for various classes of workers in Ventura County have been made by the California Director of Industrial Relations as required by the California Labor Code.

As required by California Labor Code Section 1777.5, properly indentured apprentices shall be employed on the work in the minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification. Travel and subsistence shall be paid in accordance with California Labor Code Section 1773.8.

The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section. The stipulations shall fix the responsibility of compliance with this section for all apprenticeable occupations with the prime contractor.

The determinations made by the State are available on the Internet at

<http://www.dir.ca.gov/DLSR/PWD/Index.htm>

and are on file in the office of the County of Ventura Harbor Department

The rate fixed for each craft, classification, or type of work shall be not less than the prevailing rate paid in the craft, classification, or type of work.

The Contractor shall post a copy of the wage rates at each jobsite at a location readily available to the workers.

## **EXCERPTS FROM CALIFORNIA LABOR CODE**

## **Excerpts from the California Labor Code**

**These excerpts from the Labor Code include the sections listed in specification Section 7.2.2.2 that are required by Labor Code 1775(b)(1) to be included in all subcontracts. These excerpts also include sections recommended by the CA Department of Industrial Relations that contain information on the contractor registration requirements. These sections are furnished for the convenience of the contractor and in no way limit the required compliance with all laws.**

**1725.5.** 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.

*(Amended by Stats. 2017, Ch. 28, Sec. 15. (SB 96) Effective June 27, 2017.)*

**1771.** Except for public works projects of one thousand dollars (\$1,000) or less, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in this chapter, shall be paid to all workers employed on public works.

This section is applicable only to work performed under contract, and is not applicable to work carried out by a public agency with its own forces. This section is applicable to contracts let for maintenance work.

*(Amended by Stats. 1981, Ch. 449, Sec. 1.)*

**1771.1.** (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.

*(Amended by Stats. 2018, Ch. 455, Sec. 2. (SB 877) Effective September 17, 2018.)*

**1775.** (a) (1) The contractor and any subcontractor under the contractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit not more than two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates as determined by the director for the work or craft in which the worker is employed for any public work done under the contract by the contractor or, except as provided in subdivision (b), by any subcontractor under the contractor.

(2) (A) The amount of the penalty shall be determined by the Labor Commissioner based on consideration of both of the following:

(i) Whether the failure of the contractor or subcontractor to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of the contractor or subcontractor.

(ii) Whether the contractor or subcontractor has a prior record of failing to meet its prevailing wage obligations.

(B) (i) The penalty may not be less than forty dollars (\$40) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, unless the failure of the contractor or subcontractor to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of the contractor or subcontractor.

(ii) The penalty may not be less than eighty dollars (\$80) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, if the contractor or subcontractor has been assessed penalties within the previous three years for failing to meet its prevailing wage obligations on a separate contract, unless those penalties were subsequently withdrawn or overturned.

(iii) The penalty may not be less than one hundred twenty dollars (\$120) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, if the Labor Commissioner determines that the violation was willful, as defined in subdivision (c) of Section 1777.1.

(C) If the amount due under this section is collected from the contractor or subcontractor, any outstanding wage claim under Chapter 1 (commencing with Section 1720) of Part 7 of Division 2 against that contractor or subcontractor shall be satisfied before applying that amount to the penalty imposed on that contractor or subcontractor pursuant to this section.

(D) The determination of the Labor Commissioner as to the amount of the penalty shall be reviewable only for abuse of discretion.

(E) The difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the contractor or subcontractor, and the body awarding the contract shall cause to be inserted in the contract a stipulation that this section will be complied with.

(b) If a worker employed by a subcontractor on a public works project is not paid the general prevailing rate of per diem wages by the subcontractor, the prime contractor of the project is not liable for any penalties under subdivision (a) unless the prime contractor had knowledge of that failure of the subcontractor to pay the specified prevailing rate of wages to those workers or unless the prime contractor fails to comply with all of the following requirements:

(1) The contract executed between the contractor and the subcontractor for the performance of work on the public works project shall include a copy of the provisions of this section and Sections **1771, 1776, 1777.5, 1813, and 1815**.

(2) The contractor shall monitor the payment of the specified general prevailing rate of per diem wages by the subcontractor to the employees, by periodic review of the certified payroll records of the subcontractor.

(3) Upon becoming aware of the failure of the subcontractor to pay his or her workers the specified prevailing rate of wages, the contractor shall diligently take corrective action to halt or rectify the failure, including, but not limited to, retaining sufficient funds due the subcontractor for work performed on the public works project.

(4) Prior to making final payment to the subcontractor for work performed on the public works project, the contractor shall obtain an affidavit signed under penalty of perjury from the subcontractor that the subcontractor has paid the specified general prevailing rate of per diem wages to his or her employees on the public works project and any amounts due pursuant to Section 1813.

(c) The Division of Labor Standards Enforcement shall notify the contractor on a public works project within 15 days of the receipt by the Division of Labor Standards Enforcement of a complaint of the failure of a subcontractor on that public works project to pay workers the general prevailing rate of per diem wages.

*(Amended by Stats. 2011, Ch. 677, Sec. 1. (AB 551) Effective January 1, 2012.)*

**1776** (a) Each contractor and subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

(1) The information contained in the payroll record is true and correct.

(2) The employer has complied with the requirements of Sections 1771, 1811, and 1815 for any work performed by his or her employees on the public works project.

(b) The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the contractor on the following basis:

(1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.

(2) A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the contract and the Division of Labor Standards Enforcement of the Department of Industrial Relations.

(3) A certified copy of all payroll records enumerated in subdivision (a) shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through either the body awarding the contract or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the contractor, subcontractors, and the entity through which the request was made. The public may not be given access to the records at the principal office of the contractor.

(C) Unless required to be furnished directly to the Labor Commissioner in accordance with paragraph (3) of subdivision (a) of Section 1771.4, the certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the division. The payroll records may consist of printouts of payroll data that are maintained as computer records, if the printouts contain the same information as the forms provided by the division and the printouts are verified in the manner specified in subdivision (a).

(d) A contractor or subcontractor shall file a certified copy of the records enumerated in subdivision (a) with the entity that requested the records within 10 days after receipt of a written request.

(e) Except as provided in subdivision (f), any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the awarding body or the Division of Labor Standards Enforcement shall be marked or obliterated to prevent disclosure of an individual's name, address, and social security number. The name and address of the contractor awarded the contract or the subcontractor performing the contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a multiemployer Taft-Hartley trust fund (29 U.S.C. Sec. 186(c)(5)) that requests the records for the purposes of allocating contributions to participants shall be marked or obliterated only to prevent disclosure of an individual's full social security number, but shall provide the last four digits of the social security number. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (29 U.S.C. Sec. 175a) shall be marked or obliterated only to prevent disclosure of an individual's social security number.

(f) (1) Notwithstanding any other provision of law, agencies that are included in the Joint Enforcement Strike Force on the Underground Economy established pursuant to Section 329 of the Unemployment Insurance Code and other law enforcement agencies investigating violations of law shall, upon request, be provided nonredacted copies of certified payroll records. Any copies of records or certified payroll made available for inspection and furnished upon request to the public by an agency included in the Joint Enforcement Strike Force on the Underground Economy or to a law enforcement agency investigating a violation of law shall be marked or redacted to prevent disclosure of an individual's name, address, and social security number.

(2) An employer shall not be liable for damages in a civil action for any reasonable act or omission taken in good faith in compliance with this subdivision.

(g) The contractor shall inform the body awarding the contract of the location of the records enumerated under subdivision (a), including the street address, city, and county, and shall, within five working days, provide a notice of a change of location and address.

(h) The contractor or subcontractor has 10 days in which to comply, subsequent to receipt of a written notice requesting the records enumerated in subdivision (a). In the event that the contractor or subcontractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit one hundred dollars (\$100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. A contractor is not subject to a penalty assessment pursuant to this section due to the failure of a subcontractor to comply with this section.

(i) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section.

(j) The director shall adopt rules consistent with the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code) and the Information Practices Act of 1977 (Title 1.8 (commencing with Section 1798) of Part 4 of Division 3 of the Civil Code) governing the release of these records, including the establishment of reasonable fees to be charged for reproducing copies of records required by this section. *(Amended by Stats. 2014, Ch. 28, Sec. 71. (SB 854) Effective June 20, 2014.)*

**1777.5.** (a) (1) This chapter does not prevent the employment upon public works of properly registered apprentices who are active participants in an approved apprenticeship program.

(2) For purposes of this chapter, "apprenticeship program" means a program under the jurisdiction of the California Apprenticeship Council established pursuant to Section 3070.

(b) (1) Every apprentice employed upon public works shall be paid the prevailing rate of per diem wages for apprentices in the trade to which he or she is registered and shall be employed only at the work of the craft or trade to which he or she is registered.

(2) Unless otherwise provided by a collective bargaining agreement, when a contractor requests the dispatch of an apprentice pursuant to this section to perform work on a public works project and requires the apprentice to fill out an application or undergo testing, training, an examination, or other preemployment process as a condition of employment, the apprentice shall be paid for the time spent on the required preemployment activity, including travel time to and from the required activity, if any, at the prevailing rate of per diem wages for apprentices in the trade to which he or she is registered. Unless otherwise provided by a collective bargaining agreement, a contractor is not required to compensate an apprentice for the time spent on preemployment activities if the apprentice is required to take a preemployment drug or alcohol test and he or she fails to pass that test.

(c) Only apprentices, as defined in Section 3077, who are in training under apprenticeship standards that have been approved by the Chief of the Division of Apprenticeship Standards and who are parties to written apprentice agreements under Chapter 4 (commencing with Section 3070) of Division 3 are eligible to be employed at the apprentice wage rate on public works. The employment and training of each apprentice shall be in accordance with either of the following:

(1) The apprenticeship standards and apprentice agreements under which he or she is training.

(2) The rules and regulations of the California Apprenticeship Council.

(d) If the contractor to whom the contract is awarded by the state or any political subdivision, in performing any of the work under the contract, employs workers in any apprenticeable craft or trade, the contractor shall employ apprentices in at least the ratio set forth in this section and may apply to any apprenticeship program in the craft or trade that can provide apprentices to the site of the public work for a certificate approving the contractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected. However, the decision of the apprenticeship program to approve or deny a certificate shall be subject to review by the Administrator of Apprenticeship. The apprenticeship program or programs, upon approving the contractor, shall arrange for the dispatch of apprentices to the contractor. A contractor covered by an apprenticeship program's standards shall not be required to submit any additional application in order to include additional public works contracts under that program. "Apprenticeable craft or trade," as used in this section, means a craft or trade determined as an apprenticeable occupation in accordance with rules and regulations prescribed by the California Apprenticeship Council. As used in this section, "contractor" includes any subcontractor under a contractor who performs any public works not excluded by subdivision (o).

(e) Before commencing work on a contract for public works, every contractor shall submit contract award information to an applicable apprenticeship program that can supply apprentices to the site of the public work. The information submitted shall include an estimate of journeyman hours to be performed under the contract, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also be submitted to the awarding body, if requested by the awarding body. Within 60 days after concluding work on the contract, each contractor and subcontractor shall submit to the awarding body, if requested, and to the apprenticeship program a verified statement of the journeyman and apprentice hours performed on the contract. The information under this subdivision shall be public. The apprenticeship programs shall retain this information for 12 months.

(f) The apprenticeship program supplying apprentices to the area of the site of the public work shall ensure equal employment and affirmative action in apprenticeship for women and minorities.

(g) The ratio of work performed by apprentices to journeymen employed in a particular craft or trade on the public work may be no higher than the ratio stipulated in the apprenticeship standards under which the apprenticeship program operates if the contractor agrees to be bound by those standards. However, except as otherwise provided in this section, in no case shall the ratio be less than one hour of apprentice work for every five hours of journeyman work.

(h) This ratio of apprentice work to journeyman work shall apply during any day or portion of a day when any journeyman is employed at the jobsite and shall be computed on the basis of the hours worked during the day by journeymen so employed. Any work performed by a journeyman in excess of eight hours per day or 40 hours per week shall not be used to calculate the ratio. The contractor shall employ apprentices for the number of hours computed as above before the end of the contract or, in the case of a subcontractor, before the end of the subcontract. However, the contractor shall 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 jobsite. When an hourly apprenticeship ratio is not feasible for a particular craft or trade, the Administrator of Apprenticeship, upon application of an apprenticeship program, may order a minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification.

(i) A contractor covered by this section who has agreed to be covered by an apprenticeship program's standards upon the issuance of the approval certificate, or who has been previously approved for an apprenticeship program in the craft or trade, shall employ the number of apprentices or the ratio of apprentices to journeymen stipulated in the applicable apprenticeship standards, but in no event less than the 1-to-5 ratio required by subdivision (g).

(j) Upon proper showing by a contractor that he or she employs apprentices in a particular craft or trade in the state on all of his or her contracts on an annual average of not less than one hour of apprentice work for every five hours of labor performed by journeymen, the Administrator of Apprenticeship may grant a certificate exempting the contractor from the 1-to-5 hourly ratio, as set forth in this section for that craft or trade.

(k) An apprenticeship program has the discretion to grant to a participating contractor or contractor association 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 section when it finds that any one of the following conditions is met:

(1) Unemployment for the previous three-month period in the area exceeds an average of 15 percent.

(2) The number of apprentices in training in the area exceeds a ratio of 1 to 5.

(3) There is a showing that the apprenticeable craft or trade is replacing at least one-thirtieth of its journeymen annually through apprenticeship training, either on a statewide basis or on a local basis.

(4) Assignment of an apprentice to any work performed under a public works contract would create a condition that would jeopardize his or her life or the life, safety, or property of fellow employees or the public at large, or the specific task to which the apprentice is to be assigned is of a nature that training cannot be provided by a journeyman.

(l) If an exemption is granted pursuant to subdivision (k) to an organization that represents contractors in a specific trade from the 1-to-5 ratio on a local or statewide basis, the member contractors shall not be required to submit individual applications for approval to local joint apprenticeship committees, if they are already covered by the local apprenticeship standards.

(m) (1) A contractor to whom a contract is awarded, who, in performing any of the work under the contract, employs journeymen or apprentices in any apprenticeable craft or trade shall contribute to the California Apprenticeship Council the same amount that the director determines is the prevailing amount of apprenticeship training contributions in the area of the public works site. A contractor may take as a credit for payments to the council any amounts paid by the contractor to an approved apprenticeship program that can supply apprentices to the site of the public works project. The contractor may add the amount of the contributions in computing his or her bid for the contract.

(2) (A) At the conclusion of the 2002–03 fiscal year, and each fiscal year thereafter, the California Apprenticeship Council shall distribute training contributions received by the council under this subdivision, less the expenses of the Department of Industrial Relations for administering this subdivision, by making grants to approved apprenticeship programs for the purpose of training apprentices. The grant funds shall be distributed as follows:

(i) If there is an approved multiemployer apprenticeship program serving the same craft or trade and geographic area for which the training contributions were made to the council, a grant to that program shall be made.

(ii) If there are two or more approved multiemployer apprenticeship programs serving the same craft or trade and county for which the training contributions were made to the council, the grant shall be divided among those programs based on the number of apprentices from that county registered in each program.

(iii) All training contributions not distributed under clauses (i) and (ii) shall be used to defray the future expenses of the Department of Industrial Relations for the administration and enforcement of apprenticeship standards and requirements under this code.

(B) An apprenticeship program shall only be eligible to receive grant funds pursuant to this subdivision if the apprenticeship program agrees, prior to the receipt of any grant funds, to keep adequate records that document the expenditure of grant funds and to make all records available to the Department of Industrial Relations so that the Department of Industrial Relations is able to verify that grant funds were used solely for training apprentices. For purposes of this subparagraph, adequate records include, but are not limited to, invoices, receipts, and canceled checks that account for the expenditure of grant funds. This subparagraph shall not be deemed to require an apprenticeship program to provide the Department of Industrial Relations with more documentation than is necessary to verify the appropriate expenditure of grant funds made pursuant to this subdivision.

(C) The Department of Industrial Relations shall verify that grants made pursuant to this subdivision are used solely to fund training apprentices. If an apprenticeship program is unable to demonstrate how grant funds are expended or if an apprenticeship program is found to be using grant funds for purposes other than training apprentices, then the apprenticeship program shall not be eligible to receive any future grant pursuant to this subdivision and the Department of Industrial Relations may initiate the process to rescind the registration of the apprenticeship program.

(3) All training contributions received pursuant to this subdivision shall be deposited in the Apprenticeship Training Contribution Fund, which is hereby created in the State Treasury. Upon appropriation by the Legislature, all moneys in the Apprenticeship Training Contribution Fund shall be used for the purpose of carrying out this subdivision and to pay the expenses of the Department of Industrial Relations.

(n) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section. The stipulations shall fix the responsibility of compliance with this section for all apprenticeable occupations with the prime contractor.

(o) This section does not apply to contracts of general contractors or to contracts of specialty contractors not bidding for work through a general or prime contractor when the contracts of general contractors or those specialty contractors involve less than thirty thousand dollars (\$30,000).

(p) An awarding body that implements an approved labor compliance program in accordance with subdivision (b) of Section 1771.5 may, with the approval of the director, assist in the enforcement of this section under the terms and conditions prescribed by the director. *(Amended by Stats. 2018, Ch. 704, Sec. 17. (AB 235) Effective September 22, 2018.)*

**1813.** The contractor or subcontractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars (\$25) for each worker employed in the execution of the contract by the respective contractor or subcontractor for each calendar day during which the worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of this article. In awarding any contract for public work, the awarding body shall cause to be inserted in the contract a stipulation to this effect. The awarding body shall take cognizance of all violations of this article committed in the course of the execution of the contract, and shall report them to the Division of Labor Standards Enforcement.

*(Amended (as added by Stats. 1997, Ch. 757, Sec. 6) by Stats. 2002, Ch. 28, Sec. 3. Effective January 1, 2003.)*

**1815.** Notwithstanding the provisions of Sections 1810 to 1814, inclusive, of this code, and notwithstanding any stipulation inserted in any contract pursuant to the requirements of said sections, work performed by employees of contractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon public work upon compensation for all hours worked in excess of 8 hours per day at not less than 1<sup>1</sup>/<sub>2</sub> times the basic rate of pay.

*(Amended by Stats. 1963, Ch. 964.)*

## **NON-DISCRIMINATION ASSURANCES**

## Non-Discrimination Assurances

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 Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, age, sex, 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 Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. Solicitation 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 Acts and the Regulations relative to Non-discrimination on the grounds of race, color, national origin, age, sex, or disability.

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 Recipient or the FHWA to be pertinent to ascertain compliance with such Acts, Regulations, 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 Recipient or the FHWA, 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 Recipient will impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
  1. withholding payments to the contractor under the contract until the contractor complies; and/or
  2. 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 Recipient or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

**PUBLIC CONTRACT CODE 9204  
DISPUTE RESOLUTION PROCESS**

**EXCERPTS FROM PUBLIC CONTRACT CODE 9204**

**EFFECTIVE DATE JANUARY 1, 2017**

Please note section 9204 of the Public Contract Code, set forth in full below. Contractor must follow the contractual dispute resolution process specified in the Ventura County Standard Specifications, which is consistent with section 9204.

\* \* \*

(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, 2027, and as of that date is repealed, unless a later enacted statute that is enacted before January 1, 2027, deletes or extends that date.

**VENTURA COUNTY  
STANDARD SPECIFICATIONS**

**VENTURA COUNTY STANDARD SPECIFICATIONS - TABLE OF CONTENTS**  
**PART 1 - GENERAL PROVISION**

**SECTION 0 - SSPWC ADOPTION AND MODIFICATION**

<b>0-1</b>	<b>STANDARD SPECIFICATIONS</b> .....	<b>1</b>
<b>0-2</b>	<b>DELETIONS</b> .....	<b>1</b>
<b>0-3</b>	<b>NUMBERING OF SECTIONS</b> .....	<b>1</b>
<b>0-4</b>	<b>ADDITIONS</b> .....	<b>1</b>

**SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE AND SYMBOL**

<b>1-1</b>	<b>GENERAL</b> .....	<b>2</b>
<b>1-2</b>	<b>TERMS AND DEFINITIONS</b> .....	<b>2</b>
<b>1-3</b>	<b>ABBREVIATIONS</b> .....	<b>4</b>
1-3.1	General .....	4
1-3.2	Common Usage .....	4
1-3.3	Institutions .....	7
1-3.4	Building Codes .....	7
1-3.5	Reference Documents .....	7
<b>1-4</b>	<b>UNITS OF MEASURE</b> .....	<b>8</b>
1-4.1	General .....	8
1-4.1.1	Units for Work .....	8
1-4.2	Units of Measure and Their Abbreviations .....	8
<b>1-5</b>	<b>SYMBOLS</b> .....	<b>8</b>

**SECTION 2 - SCOPE AND CONTROL OF WORK**

<b>2-1</b>	<b>AWARD AND EXECUTION OF CONTRACT</b> .....	<b>9</b>
2-1.1	Award of Contract .....	9
2-1.2	Notice of Award .....	9
2-1.3	Execution of Contract Documents .....	9
2-1.4	Failure to Execute Documents .....	9
2-1.5	Return of Proposal Guarantees .....	9
<b>2-2</b>	<b>ASSIGNMENT</b> .....	<b>9</b>
<b>2-3</b>	<b>SUBCONTRACTS</b> .....	<b>10</b>
2-3.1	General .....	10
2-3.1.1	Use of Debarred Subcontractors Prohibited .....	10
2-3.2	Additional Responsibilities .....	10
2-3.3	Status of Subcontractors .....	10
2-3.3.1	Subcontracts .....	10
2-3.3.2	Contractor Responsible .....	10
2-3.3.3	Specialty Contractors .....	11
<b>2-4</b>	<b>CONTRACT BONDS</b> .....	<b>11</b>
2-4.1	Bond Forms .....	11
<b>2-5</b>	<b>PLANS AND SPECIFICATIONS</b> .....	<b>11</b>
2-5.1	General .....	11
2-5.1.1	Specifications Captions .....	11
2-5.2	Precedence of Contract Documents .....	12
2-5.3	Shop Drawings, Working Drawings, and Submittals .....	12
2-5.3.1	General .....	12
2-5.3.2	Working Drawings .....	12
2-5.3.3	Shop Drawings .....	13
2-5.3.4	Supporting Information .....	13
2-5.4	Record Drawings .....	13
<b>2-6</b>	<b>WORK TO BE DONE</b> .....	<b>13</b>
2-6.1	Manufacturer's Recommendations .....	13
2-6.2	Testing of Installed Components .....	13
2-6.3	Training of Agency Personnel .....	13
<b>2-7</b>	<b>SUBSURFACE DATA</b> .....	<b>14</b>
<b>2-8</b>	<b>RIGHTS-OF-WAY</b> .....	<b>14</b>

**VENTURA COUNTY STANDARD SPECIFICATIONS - TABLE OF CONTENTS**

<b>2-9</b>	<b>SURVEYING</b> .....	<b>14</b>
2-9.1	Permanent Survey Markers .....	14
2-9.2	Survey Service.....	14
2-9.2.1	Open Areas .....	14
2-9.2.2	Utilities.....	14
2-9.3	Contractor's Surveys .....	14
2-9.3.1	Errors in Surveys.....	14
2-9.4	Line and Grade.....	14
2-9.5	Quantity Surveys .....	14
2-9.6	Payment for Surveys .....	15
<b>2-10</b>	<b>AUTHORITY OF BOARD AND ENGINEER</b> .....	<b>15</b>
2-10.1	Decisions in Writing .....	15
<b>2-11</b>	<b>INSPECTION</b> .....	<b>15</b>
2-11.1	Permit Inspections .....	15
2-11.2	Structural Observation .....	15
<b>2-12</b>	<b>SPECIAL NOTICES</b> .....	<b>15</b>
<b>2-13</b>	<b>AGENCY PERSONNEL AND AUTHORITY</b> .....	<b>15</b>
2-13.1	General.....	15
2-13.2	Engineer .....	16
2-13.3	Department Directors (Public Works Agency) .....	16
2-13.4	Project manager .....	17
2-13.5	Inspector.....	17
2-13.6	Other Agency Personnel and Consultants .....	17
2-13.6.1	Materials Engineer .....	17
2-13.6.2	Surveyors & Technicians.....	17
2-13.6.3	Other Persons .....	17
2-13.6.4	Consultants .....	17
<b><u>SECTION 3 - CHANGES IN WORK</u></b>		
<b>3-1</b>	<b>CHANGES REQUESTED BY THE CONTRACTOR</b> .....	<b>18</b>
3-1.1	General.....	18
3-1.2	Payment for Changes Requested by the Contractor.....	18
<b>3-2</b>	<b>CHANGES INITIATED BY THE AGENCY</b> .....	<b>18</b>
3-2.1	General.....	18
3-2.2	Payment for Changes Initiated by the Agency .....	18
3-2.2.1	Contract Unit Prices .....	18
3-2.2.2	Stipulated Unit Prices .....	18
3-2.2.3	Pricing.....	18
3-2.2.4	Non-Agreed Prices .....	18
<b>3-3</b>	<b>EXTRA WORK</b> .....	<b>18</b>
3-3.1	General.....	18
3-3.2	Payment .....	18
3-3.2.1	General .....	18
3-3.2.2	Basis for Establishing Costs .....	19
3-3.2.3	Markup .....	20
3-3.3	Daily Extra Work Reports by Contractor .....	20
<b>3-4</b>	<b>CHANGED CONDITIONS</b> .....	<b>21</b>
<b>3-5</b>	<b>DISPUTED WORK</b> .....	<b>21</b>

**VENTURA COUNTY STANDARD SPECIFICATIONS - TABLE OF CONTENTS**  
**SECTION 4 - CONTROL OF MATERIALS**

<b>4-1</b>	<b>MATERIALS AND WORKMANSHIP .....</b>	<b>22</b>
4-1.1	General.....	22
4-1.1.1	Materials Furnished by Agency .....	22
4-1.2	Protection of Work and Materials .....	22
4-1.3	Inspection Requirements .....	22
4-1.3.1	General .....	22
4-1.3.2	Inspection of Materials Not Locally Produced.....	22
4-1.3.3	Inspection by the Agency .....	23
4-1.3.4	Certificates of Compliance. ....	23
4-1.4	Tests of Materials .....	23
4-1.5	Certification.....	23
4-1.6	Trade Names or Equals.....	23
4-1.6.1	Compatibility with Design. ....	23
4-1.6.2	Trade Names Listed.....	24
4-1.7	Weighing Equipment .....	24
4-1.8	Calibration of Testing Equipment.....	24

**SECTION 5 - UTILITIES**

<b>5-1</b>	<b>LOCATION.....</b>	<b>25</b>
<b>5-2</b>	<b>PROTECTION.....</b>	<b>25</b>
<b>5-3</b>	<b>REMOVAL.....</b>	<b>25</b>
<b>5-4</b>	<b>RELOCATION.....</b>	<b>26</b>
<b>5-5</b>	<b>DELAYS.....</b>	<b>26</b>
5-5.1	Cooperation During Utility Relocation.....	26
<b>5-6</b>	<b>COOPERATION.....</b>	<b>26</b>

**SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK**

<b>6-1</b>	<b>CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK.....</b>	<b>27</b>
6-1.1	Beginning of Work .....	28
6-1.2	Starting Work.....	28
6-1.3	Work Sequence.....	28
6-1.4	Resources Required.....	28
<b>6-2</b>	<b>PROSECUTION OF WORK.....</b>	<b>28</b>
<b>6-3</b>	<b>SUSPENSION OF WORK.....</b>	<b>28</b>
6-3.1	General.....	28
6-3.2	Archaeological and Paleontological Discoveries.....	29
6-3.3	Temporary Suspension of Work .....	29
<b>6-4</b>	<b>TERMINATION OF CONTRACT FOR DEFAULT .....</b>	<b>29</b>
6-4.1	General.....	29
6-4.2	Notice to Cure .....	29
6-4.3	Notice of Termination for Default.....	29
6-4.4	Responsibilities of the Surety .....	29
6-4.5	Payment.....	30
<b>6-5</b>	<b>TERMINATION OF CONTRACT.....</b>	<b>30</b>
<b>6-6</b>	<b>DELAYS AND EXTENSIONS OF TIME .....</b>	<b>30</b>
6-6.1	General.....	30
6-6.2	Extensions of Time.....	30
6-6.3	Payment for Delays to Contractor.....	30
6-6.4	Written Notice and Report .....	31
6-6.4.1	Documentation of Delays.....	31
<b>6-7</b>	<b>TIME OF COMPLETION .....</b>	<b>31</b>
6-7.1	General.....	31
6-7.2	Working Day.....	31
6-7.2.1	Holidays .....	31
6-7.2.2	Landscape Maintenance Period.....	32
6-7.3	Contract Time Accounting.....	32
6-7.4	Starting Date for Contract Time and Notice to Proceed.....	32

# VENTURA COUNTY STANDARD SPECIFICATIONS - TABLE OF CONTENTS

<b>6-8</b>	<b>COMPLETION, ACCEPTANCE AND WARRANTY.....</b>	<b>32</b>
6-8.1	Completion and Acceptance.....	32
6-8.2	Warranty and Correction.....	32
6-8.3	No Waiver of Legal Rights.....	33
6-8.4	Landscape Maintenance Period.....	33
6-8.5	Non-complying Work.....	33
6-8.6	Written Warranties.....	33
<b>6-9</b>	<b>LIQUIDATED DAMAGES.....</b>	<b>33</b>
<b>6-10</b>	<b>USE OF IMPROVEMENT DURING CONSTRUCTION.....</b>	<b>33</b>
6-10.1	Use of Improvements - Exceptions.....	33
<b>6-11</b>	<b>NOTICE OF POTENTIAL CLAIM FOR ADDITIONAL COMPENSATION.....</b>	<b>34</b>
<b>6-12</b>	<b>DISPUTES AND CLAIMS; PROCEDURE.....</b>	<b>34</b>
6-12.1	GENERAL.....	34
6-12.2	ADMINISTRATIVE REVIEW.....	35
6-12.3	MEDIATION.....	35
6-12.4	ARBITRATION.....	36
<b>6-13</b>	<b>CONTRACTOR'S WORK HOURS.....</b>	<b>36</b>
6-13.1	Working Hours Limitations.....	36
6-13.2	Regular Work Schedule.....	36
6-13.3	Exceptions.....	36

## SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

<b>7-1</b>	<b>CONTRACTOR'S EQUIPMENT AND FACILITIES.....</b>	<b>37</b>
7-1.1	General.....	37
7-1.2	Temporary Utility Services.....	37
7-1.3	Crushing and Screening Operations.....	37
<b>7-2</b>	<b>LABOR.....</b>	<b>37</b>
7-2.1	General.....	37
7-2.1.1	Special Qualifications.....	37
7-2.2	Laws.....	37
7-2.2.1	Apprentices.....	37
7-2.2.2	Contractors' Duties Concerning Labor Code Compliance.....	37
7-2.3	Payroll Records.....	38
7-2.4	Hours of Labor.....	38
<b>7-3</b>	<b>INDEPENDENCE OF CONTRACTOR, INDEMNIFICATION AND POLLUTION.....</b>	<b>39</b>
7-3.1	Independence of Contractor.....	39
7-3.2	Indemnification and Hold Harmless Clause.....	39
7-3.3	Contamination and Pollution.....	39
<b>7-4</b>	<b>INSURANCE REQUIREMENTS.....</b>	<b>39</b>
7-4.1	Workers' Compensation Insurance.....	39
7-4.1.1	Coverage.....	39
7-4.1.2	Certification.....	39
7-4.2	Commercial General Liability Insurance.....	40
7-4.2.1	Insurance Classes.....	40
7-4.2.2	Coverage Exceptions.....	40
7-4.2.3	Excess Liability Policies.....	40
7-4.3	Commercial Automobile Liability Insurance.....	40
7-4.4	Property Insurance.....	40
7-4.5	Other Insurance Provisions.....	40
7-4.5.1	Insurance Company Qualifications.....	40
7-4.5.2	Primary Coverage.....	40
7-4.5.3	Aggregate Limits Exceeded.....	40
7-4.5.4	Liability in Excess of Limits.....	40
7-4.5.5	Additional Insured Endorsements.....	40
7-4.5.6	Waiver of Subrogation Rights.....	40
7-4.5.7	Cancellation Notice Required.....	41
7-4.5.8	Documentation Required.....	41

# VENTURA COUNTY STANDARD SPECIFICATIONS - TABLE OF CONTENTS

<b>7-5 PERMITS.....</b>	<b>41</b>
7-5.1 Highway and Railroad Permits.....	41
7-5.2 Grading Ordinance.....	41
7-5.2.1 General.....	41
7-5.2.2 Permits Required.....	41
7-5.2.3 Imported and Exported Material.....	41
7-5.2.4 Exemptions from Permit.....	41
7-5.3 Building Permit.....	42
7-5.3.1 Agency Furnished Permits.....	42
7-5.3.2 Contractor Furnished Permits.....	42
7-5.4 Coastal Zone Permits.....	42
7-5.4.1 Agency Furnished Permits.....	42
7-5.4.2 Contractor Furnished Permits.....	42
<b>7-6 THE CONTRACTOR'S REPRESENTATIVE.....</b>	<b>42</b>
<b>7-7 COOPERATION AND COLLATERAL WORK.....</b>	<b>42</b>
<b>7-8 WORK SITE MAINTENANCE.....</b>	<b>42</b>
7-8.1 General.....	42
7-8.2 Air Pollution Control.....	42
7-8.3 Noise Control.....	42
7-8.4 Storage of Equipment and Materials.....	42
7-8.4.1 General.....	42
7-8.4.2 Storage in Public Streets.....	42
7-8.5 Sanitary Sewers.....	43
7-8.5.1 General.....	43
7-8.5.2 Sewage Bypass and Pumping Plan.....	43
7-8.5.3 Spill Prevention and Emergency Response Plan.....	43
7-8.6 Water Pollution Control.....	43
7-8.6.1 Compliance with NPDES General Construction Permit.....	44
7-8.6.2 Compliance with NPDES MS4 Permit.....	44
7-8.6.3 Plan.....	45
7-8.6.4 Measures.....	45
7-8.6.5 Monitoring and Reporting.....	45
7-8.6.6 Dewatering Activities.....	45
7-8.6.7 Payment.....	46
7-8.7 Drainage Control.....	46
7-8.8 Final Cleaning.....	46
<b>7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS.....</b>	<b>47</b>
<b>7-10 PUBLIC CONVENIENCE AND SAFETY.....</b>	<b>47</b>
7-10.1 Access.....	47
7-10.2 Traffic Control.....	47
7-10.3 Haul Roads.....	48
7-10.4 Safety.....	48
7-10.4.1 Work Site Safety.....	48
7-10.4.2 Safety Orders.....	48
7-10.4.3 Use of Explosives.....	48
7-10.4.4 Hazardous Substances.....	49
7-10.4.5 Confined Spaces.....	49
7-10.4.5.1 Confined Space Entry Program (CSEP).....	49
7-10.4.5.2 Permit-Required Confined Spaces.....	49
7-10.5 Security and Protective Devices.....	49
7-10.5.1 General.....	49
7-10.5.2 Security Fencing.....	49
7-10.5.3 Steel Plate Covers.....	50
<b>7-11 PATENT FEES OR ROYALTIES.....</b>	<b>50</b>
<b>7-12 ADVERTISING.....</b>	<b>50</b>
<b>7-13 LAWS TO BE OBSERVED.....</b>	<b>50</b>
7-13.1 Mined Material.....	50
<b>7-14 ANTITRUST CLAIMS.....</b>	<b>50</b>
<b>7-15 RECYCLABLE CONSTRUCTION &amp; DEMOLITION WASTES.....</b>	<b>50</b>
<b>7-16 EQUAL EMPLOYMENT OPPORTUNITY.....</b>	<b>50</b>
<b>7-17 LOSS OR DAMAGE TO THE WORK.....</b>	<b>50</b>
<b>7-18 ACTS OF GOD.....</b>	<b>50</b>

**VENTURA COUNTY STANDARD SPECIFICATIONS - TABLE OF CONTENTS**

**SECTION 8 - FACILITIES FOR AGENCY PERSONNEL**

**8-1 GENERAL ..... 51**  
**8-2 EQUIPMENT FOR FIELD OFFICES..... 51**

**SECTION 9 - MEASUREMENT AND PAYMENT**

**9-1 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK..... 52**  
    9-1.1 General..... 53  
    9-1.2 Methods of Measurement..... 53  
    9-1.3 Certified Weights ..... 53  
    9-1.4 Units of Measurement..... 53  
**9-2 LUMP SUM BID ITEMS..... 53**  
**9-3 PAYMENT ..... 53**  
    9-3.1 General..... 53  
    9-3.2 Partial and Final Payment..... 53  
        9-3.2.1 Release of Withheld Contract Funds ..... 53  
        9-3.2.2 Timely Progress Payments ..... 54  
    9-3.3 Delivered Materials ..... 55  
    9-3.4 Mobilization..... 55  
        9-3.4.1 Scope..... 55  
        9-3.4.2 Payment..... 56  
**9-4 TERMINATION OF AGENCY LIABILITY..... 56**

**SECTION 10 - DIVERSION, CONTROL AND REMOVAL OF WATER**

**10-1 DESCRIPTION. .... 57**  
**10-2 REQUIREMENTS..... 57**  
**10-3 DIVERSION AND CONTROL WORKS..... 57**  
**10-4 PAYMENT ..... 57**

**PART 2 CONSTRUCTION MATERIALS**

**SECTION 200 - ROCK MATERIALS**

**200-1 ROCK PRODUCTS ..... 58**  
    200-1.6 Stone for Riprap..... 58  
        200-1.6.1A Alternate Stone for Riprap. .... 58  
        200-1.6.2 Riprap Size..... 58

**SECTION 206 - MISCELLANEOUS METAL ITEMS**

**206-3 GRAY IRON AND DUCTILE CASTINGS ..... 59**  
    206-3.3.2A Manhole Frame and Cover Sets..... 59  
**206-5 METAL RAILINGS..... 59**  
    206-5.2 Flexible Metal Guard Rail Materials ..... 59  
        206-5.2A Flexible Metal Guard Rail Materials; Modification..... 59

**SECTION 210 - PAINT AND PROTECTIVE COATINGS**

**210-6 STORM DRAIN HARDWARE ..... 59**

**SECTION 211 - SOIL AND AGGREGATE TESTS**

**211-6 SIEVE ANALYSIS..... 60**  
**211-7 Sand Equivalent Test..... 60**  
**211-8 R-VALUE. .... 60**  
**211-9 SPECIFIC GRAVITY AND ABSORPTION ..... 60**  
**211-10 LOS ANGELES RATTLER TEST ..... 60**  
**211-11 SOUNDNESS. .... 60**  
**211-12 WET AND DRY LOSS ..... 60**  
**211-13 SOLUBILITY..... 60**  
**211-14 Permeability Test..... 60**

**VENTURA COUNTY STANDARD SPECIFICATIONS - TABLE OF CONTENTS**  
**PART 3 CONSTRUCTION METHODS**

**SECTION 301 - TREATED SOILS, SUBGRADE PREPARATION AND PLACEMENT OF BASE MATERIALS**

<b>301-1</b>	<b>SUBGRADE PREPARATION.....</b>	<b>61</b>
301-1.3	Relative Compaction .....	61
301-1.3.1	Firm, Hard and Unyielding. ....	61
301-1.4	Subgrade Tolerances .....	61
<b>301-2</b>	<b>UNTREATED BASE .....</b>	<b>61</b>
301-2.3	Compacting .....	61
301-2.3.1	Tolerances .....	61

**SECTION 302 - ROADWAY SURFACING**

<b>302-5</b>	<b>ASPHALT CONCRETE PAVEMENT .....</b>	<b>61</b>
302-5.1	General.....	61
302-5.1.1	Asphalt Concrete Berms .....	61
302-5.4	Tack Coat .....	61
302-5.4.1	Fog Seal.....	61
302-5.9	Measurement and Payment.....	61
302-5.9.1	Measurement and Payment for Asphalt Berm .....	61
302-5.9.2	Measurement and Payment for Fog Seal, Tack Coat, and Prime Coat .....	61

**SECTION 303 - CONCRETE AND MASONRY CONSTRUCTION**

<b>303-5</b>	<b>CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, .....</b>	<b>62</b>
303-5.1	Requirements .....	62
303-5.1.4	Concrete Substitution.....	62

**SECTION 306 - UNDERGROUND CONDUIT CONSTRUCTION**

<b>306-1</b>	<b>OPEN TRENCH OPERATIONS .....</b>	<b>62</b>
306-1.2	Installation of Pipe.....	62
306-1.2.1	Bedding.....	62
306-1.2.1.1	Bedding Material .....	62
306-1.2.1.2	Sewer Pipe Bedding .....	62
306-1.2.1.3	Flexible Pipe Bedding .....	62
<b>306-9</b>	<b>DISINFECTION.....</b>	<b>63</b>
<b>306-10</b>	<b>WATERWORKS APPURTENANCES .....</b>	<b>63</b>
306-10.1	Valves .....	63
306-10.2	Valve Boxes.....	63
306-10.3	Thrust Devices.....	63
306-10.4	Fire Hydrants .....	63
306-10.5	Fire Hydrant Barricades .....	63

**SECTION 310 - PAINTING**

<b>310-5</b>	<b>Painting Various Surfaces.....</b>	<b>64</b>
310-5.6	Painting Traffic Striping, Pavement Markings, and Curb Markings .....	64
310-5.6.8A	Application of Paint - Two Coats .....	64

**VENTURA COUNTY STANDARD SPECIFICATIONS - TABLE OF CONTENTS**  
**PART 4**

**SECTION 400 - ALTERNATE ROCK PRODUCTS,**  
**ASPHALT CONCRETE, PORTLAND CEMENT CONCRETE AND UNTREATED BASE MATERIAL**

<b>400-1. Rock Products .....</b>	<b>65</b>
400-1.1 Requirements .....	65
400-1.1.1 General .....	65
<b>400-3 Portland Cement Concrete.....</b>	<b>65</b>
<b>400-4 Asphalt Concrete .....</b>	<b>65</b>

**APPENDICES**

<b>APPENDIX A</b>	<b>ACCORD CERTIFICATE OF LIABILITY INSURANCE.....</b>	<b>66</b>
<b>APPENDIX B-1</b>	<b>CONSTRUCTION ELEMENT VS. TIME CHART FORM .....</b>	<b>67</b>
<b>APPENDIX B-2</b>	<b>WORK COMPLETE VS. TIME CHART FORM.....</b>	<b>68</b>
<b>APPENDIX C-1</b>	<b>CONSTRUCTION ELEMENT VS. TIME CHART SAMPLE .....</b>	<b>69</b>
<b>APPENDIX C-2</b>	<b>WORK COMPLETE VS. TIME CHART SAMPLE .....</b>	<b>70</b>
<b>APPENDIX D</b>	<b>ESCROW AGREEMENT FORM SAMPLE.....</b>	<b>71</b>
<b>APPENDIX E</b>	<b>BLANK .....</b>	<b>75</b>
<b>APPENDIX F</b>	<b>RELEASE ON CONTRACT FORM.....</b>	<b>76</b>
<b>APPENDIX G</b>	<b>PERFORMANCE AND PAYMENT BOND - SAMPLE SHOWING WORDING ...</b>	<b>77</b>

**COUNTY OF VENTURA  
HARBOR DEPARTMENT  
STANDARD SPECIFICATIONS  
PART 1 - GENERAL PROVISIONS**

**SECTION 0 - SSPWC ADOPTION AND MODIFICATIONS**

**0-1 STANDARD SPECIFICATIONS**

Except as hereinafter provided or as modified by the Special Provisions, the provisions of Parts 2 through 5 of the 2015 edition of the Standard Specifications for Public Works Construction (referred to as SSPWC), published by BNi Building News, Los Angeles, are part of these Standard Specifications.

**0-2 DELETIONS**

The following portions of SSPWC are hereby deleted: Part 1 and Sections 200-1.6.2, and 301-1.4.

**0-3 NUMBERING OF SECTIONS**

The numbering in these modifications is compatible with the numbering in SSPWC. References to whole sections of SSPWC and these modifications are preceded by the word "Section", references to parts of sections show numbers only, such as "211-5", except at the beginning of a sentence, the word "Section" precedes the number. Standard Special Provisions, if included, are numbered as Sections 901 through 999. The Special Provisions are numbered starting with Section 1000 or higher.

Cross-references contained in SSPWC to sections deleted by 0-2 hereof shall be references to the sections of like number contained herein.

**0-4 ADDITIONS**

The sections that follow, either, replace sections of like number in SSPWC which were deleted in 0-2 above, modify sections of SSPWC, or add material not in SSPWC.

## **SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE AND SYMBOLS**

**1-1 GENERAL** Unless otherwise stated, the words directed, required, permitted, ordered, instructed, designated, considered necessary, prescribed, approved, acceptable, satisfactory, or words of like meaning, refer to actions, expressions, and prerogatives of the Engineer.

### **1-2 TERMS AND DEFINITIONS**

**Acceptance**--The formal written acceptance by the Agency of the Work which has been completed in all respects in accordance with the Plans and Specifications and any Modifications thereof.

**Addendum**--Written or graphic instrument issued prior to the opening of Bids which clarifies, corrects or changes the bidding or Contract Documents. The term "Addendum" shall include bulletins and all other types of written notices issued to potential bidders prior to opening of Bids.

**Agency**--The legal entity for which the Work is being performed.

**Agreement**--See Contract.

**Base**--A layer of specified material of planned thickness placed immediately below the pavement or surfacing.

**Bid**--The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work.

**Bidder**--Any individual, firm, partnership, corporation, or combination thereof, submitting a Bid for the Work, acting directly or through a duly authorized representative.

**Board**--The officer or body constituting the awarding authority of the Agency.

**Bond**--Bid, performance and payment bond or other instrument of security.

**Cash Contract**--A contract financed by means other than special assessments.

**Certificate of Compliance**--A written document signed and submitted by a supplier or manufacturer that certifies that the material or assembled material supplied to the Work site conforms to the requirements of the Contract Documents.

**Change Order**--A written order to the Contractor signed by the Agency directing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract time issued after the effective date of the Contract. A Change Order may or may not also be signed by the Contractor.

**Code**--The terms Government Code, Labor Code, etc. refer to codes of the State of California.

**Consultant**--A professional engineer, architect, landscape architect or other professional who designed the project or performed other services for the Agency on the project.

**Contract**--The written agreement between the Agency and the Contractor covering the Work.

**Contract Documents**--The Contract, Addenda, notice inviting bids, instruction to bidders; Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Contract, the Bonds, permits from jurisdictional regulatory agencies, Special Provisions, Plans, Standard Plans, Standard Specifications, Reference Specifications, Change Orders and Supplemental Agreements.

**Contractor**--The individual, partnership, corporation, joint venture, or other legal entity having a Contract with the Agency to perform the Work. In the case of work being done under permit issued by the Agency, the Permittee shall be construed to be the Contractor. The term "prime contractor" shall mean Contractor.

**Contract Price**--The total amount of money for which the Contract is awarded.

**Contract Unit Price**--The amount shown in the Bid for a single unit of an item of work.

**County Sealer**--The Sealer of Weights and Measures of the county in which the Contract is let.

**Days**--Days shall mean consecutive calendar days unless otherwise specified.

**Daily Extra Work Reports**--Reports on Agency furnished forms as required by 3-3.

**Disputed Work**--Work in which Agency and Contractor are in disagreement.

**Due Notice**--A written notification, given in due time, of a proposed action where such notification is required by the Contract to be given a specified interval of time (usually 48 hours or two Working Days) prior to the commencement of the contemplated action. Notification may be from Engineer to Contractor or from Contractor to Engineer.

**Electrolier**--Street light assembly complete, including foundation, standard, luminaire arm, luminaire, etc.

## 1-2 DEFINITIONS (Continued)

- Engineer--The Director of Public Works Agency acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.
- Field Directive--A written communication from the Engineer to the Contractor that does not make any Modification to the Contract Documents. It is used only to answer Contractor's questions and to provide decisions as specified in the Contract Documents.
- Geotextile--Synthetic fiber used in civil engineering applications, serving the primary function of separation and filtration.
- House Connection Sewer--A sewer, within a public street or right of way, proposed to connect any parcel, lot, or part of a lot with a main line sewer.
- House Sewer--A sewer, wholly within private property, proposed to connect any building to a house connection sewer.
- Luminaire--The lamp housing including the optical and socket assemblies (and ballast if so specified).
- Major Bid Item--A single Contract item constituting 10% or more of the original Contract Price.
- Mast Arm--The structural member or bracket, which, when mounted on a Standard, supports the luminaire.
- Modification--Includes Change Orders and Supplemental Agreements. A Modification may only be issued after the effective date of the Contract.
- Notice of Award--The written notice by the Agency to the successful Bidder stating that upon compliance by it with the required conditions, the Agency will execute the Contract.
- Notice to Proceed--A written notice given by the Agency to the Contractor fixing the date on which the Contract time will start.
- Owner--Same meaning as Agency.
- Person--Any individual, firm, association, partnership, corporation, trust, joint venture, or other legal entity.
- Plans--The drawings, profiles, cross sections, Standard Plans, working drawings, shop drawings, and supplemental drawings, or reproductions thereof, approved by the Engineer, which show the location, character, dimensions, or details of the Work.
- Private Contract--Work subject to Agency inspection, control, and approval, involving private funds, not administered by the Agency.
- Prompt--The briefest interval of time required for a considered reply, including time required for approval by a governing body.
- Proposal--See Bid.
- Reference Specifications--Those bulletins, standards, rules, methods of analysis or testing, codes, and specifications of other agencies, engineering societies, or industrial associations referred to in the Contract Documents. These refer to the latest edition, including amendments in effect and published at the time of advertising the project or issuing the permit, unless specifically referred to by edition, volume, or date.
- Roadway--The portion of a street reserved for vehicular use.
- Service Connection--All or any portion of the conduit cable or duct including meter, between a utility distribution line and an individual consumer
- Service Lateral Connection--The interface of the House Connection Sewer with the host pipe.
- Sewer--Any conduit intended for the reception and transfer of sewage and fluid industrial waste.
- Shop Drawings--Drawings showing details of manufactured or assembled products proposed to be incorporated in the Work.
- Special Provisions--Any provisions which supplement or modify the Standard Specifications.
- Specifications--Standard Specifications, Reference Specifications, Standard Special Provisions, Special Provisions, and specifications in Change Orders or Supplemental Agreements between the Contractor and the Board.
- Standard--The shaft or pole used to support street lighting luminaire, traffic signal heads, mast arms, etc.
- Standard Plans--Details of standard structures, devices, or instructions referred to on the Plans or in the Specifications by title or number.
- Standard Special Provisions-- Special Provisions prepared in standardized form numbered in the series 401 through 499.

## 1-2 DEFINITIONS (Continued)

Standard Specifications--Parts 1 through 6 of this document. See Section 0. References to whole sections will be preceded by the word "Section", references to parts of sections will show numbers only, such as "3-2", except at the beginning of a sentence, the word "Section" precedes the number.

State--The State of California.

State Standard Plans--Standard Plans prepared by State of California, Business and Transportation Agency, Department of Transportation.

Stipulated Unit Price--Unit prices established by Agency in the Contract Documents.

Storm Drain--Any conduit and appurtenances intended for the reception and transfer of storm water.

Street--Any road, highway, parkway, freeway, alley, walk or way.

Subbase--A layer of specified material of planned thickness between a base and the subgrade.

Subcontractor--An individual, firm or corporation having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the Work.

Subgrade--For roadways, that portion of the roadbed on which pavement, surfacing, base, subbase, or a layer of other material is placed. For structures, the soil prepared to support a structure.

Supervision--Supervision, where used to indicate supervision by the Engineer, shall mean the performance of obligations, and the exercise of rights, specifically imposed upon and granted to the Agency in becoming a party to the Contract. Except as specifically stated herein, supervision by the Agency shall not mean active and direct superintendence of details of the Work.

Supplemental Agreement--A written amendment of the Contract Documents signed by both parties.

Surety--See 2-4.

Utility--Tracks, overhead or underground wires, pipelines, conduits, ducts, or structures, sewers or storm drains owned, operated or maintained in or across a public right of way or private easement.

Work--That which is proposed to be constructed or done under the Contract or permit, including the furnishing of all labor, materials, equipment, and services.

Working Day--See 6-7.2 and 6.7.2.1.

Working Drawings--Drawings showing details not shown on the Plans which are required to designed by the Contractor

## 1-3 ABBREVIATIONS

**1-3.1 General.** The abbreviations herein, together with others in general use, are applicable to these Standard Specifications and to all other Contract Documents.

All abbreviations and symbols used on Plans for structural steel construction shall conform to those given by the "Manual of Steel Construction" published by the American Institute of Steel Construction, Inc.

### 1-3.2 Common Usage

<u>Abbreviation</u>	<u>Word or Words</u>	<u>Abbreviation</u>	<u>Word or Words</u>
Aban	Abandon	l	Liters
Aband	Abandoned	Lab	Laboratory
ABS	Acrylonitrile-butadiene-styrene	Lat	Lateral
AC	Asphalt Concrete	LD	Local depression
ACP	Asbestos cement pipe	LED	Light Emitting Diode
ADA	Americans with Disabilities Act of 1990 (Public Law 101-336, 104 Stat. 1990,42 USC 12101-12213 (as amended))	LH	Lamp hole
Alt	Alternate	LL	Live load
AmerStd	American Standard	LOL	Layout line
APC	Air Placed Concrete	Long	Longitudinal
ARAM	Asphalt Rubber Aggregate Membrane	LP	Lamp post
ARHM	Asphalt Rubber Hot Mix	LPS	Low pressure sodium (Light)
AWG	American Wire Gage (non-ferrous wire)	LS	Lump sum
BW	Back of wall	LTS	Lime treated soil
BC	Beginning of curve	m	Meters
BCR	Beginning of curb return	Maint	Maintenance
Bdry	Boundary	Max	Maximum
BF	Bottom of footing	MC	Medium curing
BM	Bench mark	MCR	Middle of curb return
BMPs	Best Management Practices	Meas	Measure
BVC	Beginning of vertical curve	MH	Manhole, maintenance hole
C&G	Curb & Gutter	Mil Spec	Military specification
C&G	Curb and gutter	Min	Minimum
CAB	Crushed aggregate base	Misc	Miscellaneous

<u>Abbreviation</u>	<u>Word or Words</u>	<u>Abbreviation</u>	<u>Word or Words</u>
CALOSHA	California Occupational Safety and Health Administration	Mon	Monument
CALTRANS	California Department of Transportation	MSDS	Material Safety Data Sheet
CAP	Corrugated aluminum pipe	Mult	Multiple
CB	Catch Basin	MUTCD	Manual on Uniform Traffic Control Devices
Cb	Curb	MVL	Mercury vapor light
CBP	Catch Basin Connection Pipe	N/A	No applicable
CBR	California Bearing Ratio	NRCPP	Nonreinforced concrete pipe
C-C	Center to center	Obs	Obsolete
CCFRPM	Centrifugally Cast Fiberglass Reinforced Plastic Mortar	oc	On center
CCR	California Code of Regulations	OD	Outside diameter
CCTV	Closed Circuit TV	OE	Outer edge
CF	Cubic foot	Opp	Opposite
CF	Curb face	Orig	Original
CFR	Code of Federal Regulations	PAV	Pressure Aging Vessel
CFS	Cubic feet per second	PB	Pull box
CHDPE	Corrugated High Density Polyethylene	PC	Point of curvature
CIP	Cast iron pipe	PCC	Point of compound curvature
CIPP	Cast-in-place pipe	PCC	Portland cement concrete
CIPPC	Cast-in-place Concrete Pipe	PCVC	Point of compound vertical curve
CL	Clearance, center line	PE	Polyethylene
CLF	Chain link fence	PG	Performance Graded
CLSM	Controlled Low Strength Material	PI	Point of intersection
CMB	Crushed miscellaneous base	PL	Property line
CMC	Cement mortar-coated	PLI	Pounds per linear inch
CML	Cement mortar-lined	PMB	Processed miscellaneous base
cms	Cubic meters per second	POC	Point on curve
CO	Cleanout (Sewer)	POT	Point on tangent
Col	Column	PP	Power pole
Conc	Concrete	PRC	Point of reverse curve
Conn	Connection	PRCB	Precast Reinforced Concrete Box
Const	Construct, Construction	PRVC	Point of reverse vertical curve
Coord	Coordinate	PSI	Pounds per square inch
CQS	Cationic Quick-Setting	PT	Point of tangency
CRM	Crumb Rubber Modifier	PVC	Polyvinyl chloride
CRS	Cationic Rapid-Setting	Pvmt	Pavement
CSEP	Confined Space Entry Plan	Pvt R/W	Private right of way
CSP	Corrugated steel pipe	Q	Rate of flow in cms (CFS)
CSPA	Corrugated steel pipe arch	Quad	Quadrangle, Quadrant
CSS	Cationic Slow-Setting	R	Radius or Resistance value
CT	California Test	R&O	Rock and Oil
CTB	Cement treated base	R/W	Right of way
CV	Check valve	RA	Reclaimed Asphalt or Recycling agent
CY	Cubic yard	RAC	Recycled asphalt concrete
D	Depth, Load of pipe	RAP	Reclaimed asphalt pavement
db	Decibels	RBAC	Rubberized asphalt concrete
Dbl	Double	RC	Reinforced concrete or Rapid Curing
DF	Douglas Fir	RCB	Reinforced concrete box
Dia	Diameter	RCE	Registered civil engineer
DIP	Ductile iron pipe	RCP	Reinforced concrete pipe
DL	Dead load	RCV	Remote control valve
DT	Drain tile	Ref	Reference
Dwg	Drawing	Reinf	Reinforced or reinforcement
Dwy Appr	Driveway approach	Res	Reservoir
Dwy	Driveway	RGE	Registered geotechnical engineer
Ea	Each	RPPCC	Reclaimed Plastic Portland Cement Concrete
EC	End of curve	RR	Railroad
ECR	End of curb return	RSE	Registered structural engineer
EF	Each face	RTE	Registered traffic engineer
EG	Edge of gutter	RTFO	Rolling Thin Film Oven
EGL	Energy grade line	RW	Reclaimed Water
EI	Elevation	S	Slope
ELC	Electrolier lighting conduit	S/W	Sidewalk
ELT	Extra long ton of slurry	SC	Slow curing
Eng	Engineer, Engineering	SCCP	Steel cylinder concrete pipe
EP	Edge of pavement	SCNs	Supplementary Cementitious Materials
Esmt	Easement	SD	Storm drain
ETB	Emulsion treated base	SDR	Standard dimension ratio

<u>Abbreviation</u>	<u>Word or Words</u>	<u>Abbreviation</u>	<u>Word or Words</u>
EVC	End of vertical curve	SE	Sand Equivalent
Exc	Excavation	Sec	Section
Exist or Ex	Existing	SF	Square foot
Exp Jt	Expansion joint	SG	Specific gravity
F & C	Frame and cover	SI	International System of Units (Metric)
F & I	Furnish and install	SLC	Service Lateral Connection
F/W	Face of wall	Spec	Specifications
Fab	Fabricate	SR	Standard ratio
FAS	Flashing arrow sign	SS	Sanitary sewer
FD	Floor drain	SSB	Select sub-base
Fdn	Foundation	SSP	Structural steel plate pipe
Fed Spec	Federal Specification	SSPA	Structural steel plate pipe arch
FG	Finished grade	St Hwy	State highway
FL	Flow line	Sta	Station
FS	Finished surface	Std	Standard
ft - lb	foot – pound	Str Gr	Straight grade
Ftg	footing	Str	Straight
FW	Face of wall	Struc	Structural/Structure
Ga	Gauge	SW	Sidewalk
Galv	Galvanized	SWD	Sidewalk drain
GG	Gap graded	SWPPP	Storm Water Pollution Prevention Plan
GIP	Galvanized iron pipe	SY	Square Yard
GL	Ground line or grade line	T/W	Top of wall
GM	Gas meter	Tan	Tangent
GP	Guy pole	TC	Top of curb
Gr	Grade	TCP	Traffic control plan
Grtg	Grating	Tel	Telephone
GSP	Galvanized steel pipe	TF	Top of footing
H	High or height	Topo	Topography
HB	Hose bib	Tr	Tract
HC	House connection	Trans	Transition
HDPE	High density Polyethylene	TRMAC	Tire rubber modified asphalt concrete
HDWL	Headwall	TS	Traffic signal or transition structure
HGL	Hydraulic grade line	TSC	Traffic signal conduit
Hor, Horiz	Horizontal	TSS	Traffic signal standard
Hp	Horsepower	TTC	Temporary traffic control
HPG	High pressure gas	TW	Top of wall
HPS	High pressure sodium (Light)	Typ	Typical
HRWRA	High Range Water Reducing Admixture	U.S.	United States
Hyd, Hydr	Hydraulic	U.S.C.	United States Code
ID	Inside diameter	USA	Underground Service Alert
Incl	Include, Including	Var	Varies, Variable
Insp	Inspection	VB	Valve box
Inv	Invert	VC	Vertical curve
IP	Iron pipe	VCP	Vitrified clay pipe
J	Joules	Vert	Vertical
JC	Junction chamber	Vol	Volume
Jct	Junction	VTCSH	Vehicle Traffic Controls Signal Heads
JS	Junction structure	W	Width or Wider
Jt	Joint	WATCH	Work Area Traffic Control Handbook
kg	Kilograms	WI	Wrought iron
kPa	KiloPascals	WM	Water meter
L	Length	WPJ	Weakened plane joint
		WTAT	Wet Track Abrasion Test
		X Conn	Cross connection
		x (as in 2x4)	by
		X-Sec	Cross section

**1-3.3 Institutions.**

<u>Abbreviation</u>	<u>Word or Words</u>
AAN.....	American Association of Nurserymen
AASHTO .....	American Association of State Highway and Transportation Officials
ACI.....	American Concrete Institute
AGC .....	Associated General Contractors of America
AISC .....	American Institute of Steel Construction
ANSI.....	American National Standards Institute
API .....	American Petroleum Institute
APWA.....	American Public Works Association
AREA .....	American Railway Engineering Association
ASHRAE .....	American Society of Heating, Refrigeration and Air-Conditioning Engineers
ASME .....	American Society of Mechanical Engineers
ASTM .....	American Society for Testing and Materials
AWPA.....	American Wood Preserver's Association
AWS.....	American Welding Society
AWWA.....	American Water Works Association
CBSC .....	California Building Standards Commission
CRSI.....	Concrete Reinforcing Steel Institute
EIA .....	Electronic Industries Association
EPA.....	Environmental Protection Agency
ETL.....	Electrical Testing Laboratories
FCC.....	Federal Communications Commission
IAPMO .....	International Association of Plumbing and Mechanical Officials
ICC.....	International Code Council
IEEE .....	Institute of Electrical and Electronics Engineers
IMSA .....	International Municipal Signal Association
ITE.....	Institute of Traffic Engineers
NEMA.....	National Electrical Manufacturers Association
NFPA.....	National Fire Protection Association
NOAA .....	National Oceanic and Atmospheric Administration (Department of Commerce)
RUS.....	Rural Utility Service
UL .....	Underwriters' Laboratories, Inc.
USGS .....	United State Geological Survey
WFCA.....	Western Fire Chiefs Association

**1-3.4 Building Codes.** The Ventura County Building Code (VCBC) and Ventura County Fire Code (VCFC) are applicable to the Work. VCBC and VCFC adopt by reference a number of uniform and national codes. Where such codes are referenced directly in the Specifications, such references shall be to the VCBC or VCFC which adopt and modify certain provisions in the referenced codes.

<u>Abbreviation</u>	<u>Code</u>	<u>Publisher</u>
CBC.....	California Building Code.....	CBSC
DBC .....	Uniform Code for Abatement of Dangerous Building.....	ICC
UBC .....	Uniform Building Code.....	ICC
UFC .....	Uniform Fire Code .....	ICC and WFCA
UHC.....	Uniform Housing Code.....	ICC
UMC.....	Uniform Mechanical Code.....	IAPMO
UPC .....	Uniform Plumbing Code.....	IAPMO
NEC .....	National Electrical Code.....	NFPA

**1-3.5 Reference Documents.**

<u>Abbreviation</u>	<u>Document</u>
HDM	Highway Design Manual, State of California, Department of Transportation, Latest Edition
MUTCD	Manual on Uniform Traffic Control Devices
SSP	Standard Plans, State of California, Department of Transportation, latest edition
SPPWC	Standard Plans for Public Works Construction, Latest edition, published by BNi Building News, Los Angeles,
SSPWC	Standard Specifications for Public Works Construction, (See Section 0-1)
SSS	Standard Specifications, State of California, Department of Transportation, latest edition
VCSS	Ventura County Standard Specifications (Division 1, Sections 0 through 10, of which this section is a part)

## 1-4 UNITS OF MEASURE

### 1-4.1 General.

The International System of Units, also referred to as SI or the metric system, is the principal measurement system in these Specifications and shall be used for construction, unless otherwise stated in the Contract Documents. U. S. Standard Measure, also called U. S. Customary System, are included in parenthesis. SI units and U. S. Standard Measure in parenthesis may or may not be exactly equivalent. If U. S. Standard Measures are specified for use in the Contract Documents, then all values used for construction shall be U. S. Standard Measures shown in parentheses. However, certain material Specifications and test requirements contained herein use SI units specifically and conversions to U. S. Measures have not been included in these circumstances. When U. S. Standard Measures are not included in parentheses, the SI units shall control.

Reference is also made to ASTM E 380 for definitions of various units of the SI system and a more extensive set of conversion factors.

### 1-4.1.1 Units for Work.

Where U. S. Standard Measure units are shown on the Plans or are specified, U. S. Standard Measure shall be used for the Work.

### 1-4.2 Units of Measure, Equivalents and Abbreviations

One U.S. Customary Unit	(abbreviation)	Is Equal To	#	SI Unit
mil (=0.001 in)		25.4	micrometers	( $\mu\text{m}$ )
inch	(in)	25.4	millimeter	(mm)
inch	(in)	2.54	centimeter	(cm)
foot	(ft)	0.3048	meter	(m)
yard	(yd)	0.9144	meter	(m)
mile		1.6093	kilometer	(km)
square foot	(ft <sup>2</sup> )	0.0929	square meter	(m <sup>2</sup> )
square yard	(yd <sup>2</sup> )	0.8361	square meter	(m <sup>2</sup> )
cubic foot	(ft <sup>3</sup> )	0.0283	cubic meter	(m <sup>3</sup> )
cubic yard	(yd <sup>3</sup> )	0.7646	cubic meter	(m <sup>3</sup> )
acre (=43,560 ft <sup>2</sup> )		0.4047	hectare (1ha=10,000m <sup>2</sup> )	(ha)
gallon	(gal)	3.7854	Liter	(L)
fluid ounce	(fl. oz.)	29.5735	milliliter	(mL)
pound mass (avoirdupois)	(lbs)	0.4536	kilogram	(kg)
ounce mass	(oz)	0.02835	kilogram	(kg)
ounce mass	(oz)	28.35	grams	(g)
Ton (=2000 lb avoirdupois)		0.9072	Tonne (1 Tonne = 1000 kg)	
Poise		0.10	Pascal-second	(Pa-s)
centistoke	(cs)	1.00	square millimeter/sec.	(mm <sup>2</sup> /s)
pound force	(lbf)	4.4482	Newton	(N)
pound per square inch	(psi)	6.8948	Kilopascal	(kPa)
pound force per foot	(lbf/ft)	14.594	Newton per meter	(N/M)
foot-pound force	(ft-lbf)	1.3558	Joules	(J)
foot-pound force per second	([ft-lbf]/s)	1.3558	Watt	(W)
part per million	(ppm)	1.00	milligram/liter	(mg/L)
Degree Fahrenheit	(°F)	0.5555	Degree Celsius	(°C)

Temperature: Celsius to Fahrenheit	Temperature: Fahrenheit to Celsius
Temperature °F = (1.8 x °C) + 32	Temperature °C = (°F - 32) / 1.8

SI Units Used in Both Systems		
Ampere (A)	second (s)	Candela (cd)
Volt (V)	decibel (db)	Lumen (lm)

Common Metric Prefixes					
kilo (k)	10 <sup>3</sup>	milli (m)	10 <sup>-3</sup>	nano (n)	10 <sup>-9</sup>
centi (c)	10 <sup>-2</sup>	micro ( $\mu$ )	10 <sup>-6</sup>	pico (p)	10 <sup>-12</sup>

### 1-5 SYMBOLS

° Degree	P <sub>L</sub> Property line	% Percent
' Feet or minutes	S <sub>L</sub> Survey line or station line	# Number
" Inches or seconds	C <sub>L</sub> Center line	/ per or of (between words)
Δ Delta, the central angle or angle between tangents		∠ Angle

## SECTION 2 - SCOPE AND CONTROL OF WORK

### 2-1 AWARD AND EXECUTION OF CONTRACT

**2-1.1 Award of Contract.** The right is reserved to waive minor irregularities in the proposals and to reject any or all proposals. The award of the Contract, if it be awarded, will be to the lowest responsive, responsible Bidder, determined as provided on the Proposal Form, whose Proposal complies with all the requirements prescribed. Such award, if made, will be made within the number of Days stated in the Proposal form. If the lowest responsible Bidder refuses or fails to execute the Contract, the Agency may, within 45 additional Days, consider the next lowest Bidder to be the lowest responsive, responsible Bidder. The periods of time specified above within which the award of Contract may be made shall be subject to extension for such further period as may be agreed upon in writing by the Bidder concerned. If the Bidder's bid guarantee was in the form of a bid bond, the Bidder shall also submit a statement from the Surety that the bond has been extended for the same period.

Proposals not accompanied by a properly executed Noncollusion Affidavit required by Public Contract Code Section 7106 will be considered nonresponsive and will not be considered for award.

All bids will be compared on the basis of the quantities, amounts and unit prices, or lump sums, as shown on the Bid Proposal.

Before award, the Bidder may be required to furnish acceptable evidence of adequate capability, equipment and financial resources to adequately perform the Work. Bidders found not to be so qualified may have their bids rejected. If reasonable cause exists to believe collusion exists among Bidders, or that prices Bid are unbalanced between Bid items, any or all proposals may be rejected.

Award will not be made to a Bidder who is listed by the State Labor Commissioner as ineligible to bid, work on, or be awarded public works projects.

**2-1.2 Notice of Award.** Within one Day after award of Contract by the Board, the Bidder to whom Contract is awarded will be notified of award by email and telephone, or if no contact is made by telephone, then by mail. Within three business days after award of Contract, a Notice of Award will be sent, transmitting the Contract Documents to such Bidder for execution. If telephone contact is made, the Bidder may request that the Contract Documents be held in Agency's office to be picked up.

**2-1.3 Execution of Contract Documents.** On receipt of the Contract Documents, the Bidder shall promptly obtain the required insurance coverage, certificates of insurance, power-of-attorney and Contract bonds, execute the Contract, and transmit all required documents to the Agency.

**2-1.4 Failure to Execute Documents.** Should the Bidder fail to furnish Agency all required documents, properly executed, prior to the starting day of the Contract time computed as provided in 6-7.4 and stated in the Notice of Award, Agency may thereafter declare the Bidder to be in default and its Proposal guarantee forfeited.

**2-1.5 Return of Proposal Guarantees.** Within 10 Days after the award of the Contract, Agency will return the Proposal guarantees, other than Bidder's bonds, accompanying such of the proposals as are not to be further considered in making the award. The low and second Bidder's Proposal guarantee will be held until the Contract has been executed, after which all Proposal guarantees, except Bidders' bonds and any guarantees which have been forfeited, will be returned to the respective Bidders whose proposals they accompany.

**2-2 ASSIGNMENT.** No Contract or portion thereof may be assigned without consent of the Board except that the Contractor may assign money due or which will accrue to it under the Contract. If given written notice, such assignment will be recognized by the Board to the extent permitted by law, but any assignment of money shall be subject to all proper withholdings in favor of the Agency and to all deductions provided for in the Contract. All money withheld, whether assigned or not, shall be subject to being used by the Agency for completion of the Work, should the Contractor be in default.

## 2-3 SUBCONTRACTS.

**2-3.1 General.** Each Bidder shall comply with the Chapter of the Public Contract Code including Sections 4100 through 4113. The following excerpts or summaries of some of the requirements of that Chapter are included below for information.

The Bidder shall set forth in the Bid, as provided in 4104:

"(a) (1) The name, the location of the place of business, and the California contractor license number of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater.

(2) An inadvertent error in listing the California contractor license number provided pursuant to paragraph (1) shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the corrected contractor's license number is submitted to the public entity by the prime contractor within 24 hours after the bid opening and provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor."

If the Contractor fails to specify a Subcontractor, or specifies more than one Subcontractor for the same portion of the Work to be performed under the Contract (in excess of one-half of 1 percent of the Contractor's total bid), the Contractor shall be qualified to perform that portion itself, and shall perform that portion itself except as otherwise provided in the Code.

Except as provided in Section 4107, no prime contractor, whose Bid is accepted, shall substitute any person or Subcontractor in place of the Subcontractor listed in the original bid other than for causes and by procedures established in Section 4107.5 which provides procedures to correct a clerical error in the listing of a Subcontractor.

Section 4110 provides that a Contractor violating any of the provisions of the Chapter violates the Contract and the Board may exercise the option either to cancel the Contract or assess the Contractor a penalty in an amount of not more than 10 percent of the subcontract involved, after a public hearing.

**2-3.1.1 Use of Debarred Subcontractors Prohibited.** The Contractor is prohibited from performing work using a Subcontractor who is listed by the State Labor Commissioner as ineligible to work on public works projects.

**2-3.2 Additional Responsibilities.** The Contractor shall give personal attention to the fulfillment of the Contract and shall keep the Work under its control.

Except where the required Contractor's License Class is "B", the Contractor shall perform, with its own organization, Contract work amounting to at least 50 percent of the Contract Price except that any designated "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed may be deducted from the Contract Price before computing the amount required to be performed by the Contractor with its own organization. "Specialty Items" will be identified by the Agency in the Bid or Proposal with an "[S]". Where an entire item is subcontracted, the value of work subcontracted will be based on the Contract Unit Price. This will be determined from information submitted by the Contractor, and subject to approval by the Engineer.

Before the work of any Subcontractor is started, the Contractor shall submit to the Engineer for approval a written statement showing the work to be subcontracted giving the name, contractor license number, registration with the Department of Industrial Relations, and business of each Subcontractor and description and value of each portion of work to be subcontracted.

**2-3.3 Status of Subcontractors.** Subcontractors shall be considered employees of the Contractor, and the Contractor shall be responsible for their work.

**2-3.3.1 Subcontracts.** The Contractor shall incorporate into all subcontracts, and the Subcontractor shall incorporate into all lower tier subcontracts, all of the Plans and Specifications which are part of the Contract between the Contractor and the Agency.

**2-3.3.2 Contractor Responsible.** The Contractor is responsible for properly performing and completing all Work required by the Contract whether or not it employs subcontractors for certain portions of the Work. It shall coordinate the sequence and timing of its efforts and that of its subcontractors to insure the proper and timely completion of the Work.

**2-3.3.3 Specialty Contractors.** Where a specialty Contractor's license is required by law or by the Specifications in order to perform certain portions of the Work, the Contractor may perform such portion with its own forces if it holds the proper license. Otherwise, it shall employ a properly licensed subcontractor to perform that portion of the Work. Such requirement to employ a subcontractor does not modify the other requirements of 2-3.

**2-4 CONTRACT BONDS.** Before execution of the Contract by the Agency, the Bidder shall file surety bonds with the Agency to be approved by the Board in the amounts and for the purposes noted below. Bonds issued by a Surety who is listed in the latest version of U.S. Department of Treasury Circular 570, who is authorized to issue bonds in California, and whose bonding limitation shown in said circular is sufficient to provide bonds in the amount required by the Contract shall be deemed to be approved unless specifically rejected by the Agency. Bonds from all other sureties shall be accompanied by all of the documents enumerated in Code of Civil Procedure 995.660(a). The Bidder shall pay all bond premiums, costs, and incidentals.

Each bond shall incorporate, by reference, the Contract and be signed by both the Bidder and Surety and the signature of the authorized agent of the Surety shall be notarized.

The Bidder shall provide two good and sufficient surety bonds. The "Payment Bond" (Material and Labor Bond) shall be for not less than 100 percent of the Contract Price, to satisfy claims of material suppliers and mechanics and laborers employed by it on the Work. The bond shall be maintained by the Contractor in full force and effect until the Work is accepted by the Agency, and until all claims for materials and labor are paid, and shall otherwise comply with the Civil Code.

The "Performance Bond" shall be for 100 percent of the Contract Price to guaranty faithful performance of all Work, within the time prescribed, in a manner satisfactory to the Agency, and that all materials and workmanship will be free from original or developed defects. The bond must remain in effect until the end of the warranty period set forth in 6.8-2.

Should any bond become insufficient, the Contractor shall renew the bond within 10 Days after receiving notice from the Agency.

Should any Surety at any time be unsatisfactory to the Board, notice will be given the Contractor to that effect. No further payments shall be deemed due or will be made under the Contract until a new Surety shall qualify and be accepted by the Board.

Changes in the Work, or extensions of time, made pursuant to the Contract, shall in no way release the Contractor or Surety from its obligations. Notice of such changes or extensions shall be waived by the Surety.

**2-4.1 Bond Forms.** Bonds shall be on forms furnished by Agency.

## **2-5 PLANS AND SPECIFICATIONS**

**2-5.1 General.** The Contractor shall keep at the work site a copy of the Plans and Specifications, to which the Engineer shall have access at all times.

The Plans, Specifications, and other Contract Documents shall govern the Work. The Contract Documents are intended to be complementary and cooperative. Anything specified in the Specifications and not shown on the Plans, or shown on the Plans and not specified in the Specifications, shall be as though shown or specified in both. The Plans shall be supplemented by such working drawings and shop drawings as are necessary to adequately control the Work.

The Contractor shall ascertain the existence of any conditions affecting the cost of the Work through reasonable examination of the work site prior to submitting the Bid..

Existing improvements visible at the work site, for which no specific disposition is made on the Plans, but which interfere with the completion of the Work, shall be removed and disposed of by the Contractor.

The Contractor shall, upon discovering any error or omission in the Plans or Specifications, immediately call it to the attention of the Engineer.

**2-5.1.1 Specifications Captions.** Captions accompanying specification parts, sections and paragraphs are for convenience of reference only and do not limit the content of such part, section or paragraph.

The division of the Plans into parts and the division of the Specifications into divisions and sections are for the ease of reference only and does not imply the division of work between trades or subcontractors.

**2-5.2 Precedence of Contract Documents.** If there is a conflict between any of the Contract Documents, the document highest in precedence shall control. The precedence shall be as follows:

- 1) Permits issued by jurisdictional regulatory agencies.
- 2) Change Orders and Supplemental Agreements; whichever occurs last.
- 3) Contract/Agreement.
- 4) Addenda.
- 5) Bid/Proposal.
- 6) Special Provisions.
- 7) Plans.
- 8) Standard Plans.
- 9) Standard Specifications.
- 10) Reference Specifications.

Detail drawings shall take precedence over general drawings.

**2-5.3 Shop Drawings, Working Drawings, and Submittals.**

**2-5.3.1 General.** Submittals shall be provided, at the Contractor's expense, as required in 2-5.3.2, 2-5.3.3 and 2-5.3.4, when required by the Plans or Special Provisions, or when requested by the Engineer.

Materials shall neither be furnished nor fabricated, nor shall any work for which submittals are required be performed, before the required submittals have been reviewed and accepted by the Engineer. Neither review nor acceptance of submittals by the Engineer shall relieve the Contractor from responsibility for errors, omissions, or deviations from the Contract Documents, unless such deviations were specifically called to the attention of the Engineer in the letter of transmittal. The Contractor shall be responsible for the correctness of the submittals.

The Contractor shall allow a minimum of 20 working days for review of submittals unless otherwise specified in the Special Provisions. Each submittal shall be accompanied by a letter of transmittal.

**2-5.3.2 Working Drawings.** Working drawings shall be of a size and scale to clearly show all necessary details.

Six copies and one reproducible shall be submitted. If no revisions are required, 3 of the copies will be returned to the Contractor. If revisions are required, the Engineer will return one copy along with the reproducible for resubmission. Upon acceptance, the Engineer will return 2 of the copies to the Contractor and retain the remaining copies and the reproducible.

Working drawings are required in the following subsections:

**TABLE 2-5.3.2 (A)**

Item	Section Number	Title	Subject
1	7-8.5.2	Sanitary Sewers	Sewage Bypass and Pumping
2	7.8.6.3	Water Pollution Control	Storm Water Pollution Prevention Plan
3	7-8.6.6	Water Pollution Control	Dewatering Plan
4	7-10.2.2	Work Area Traffic Control	Traffic Control Plan
5	7-10.4..2.2	Safety	Trench Shoring
6	207-8.4	Joints	Vitrified Clay Pipe
7	207-10.2.1	General	Fabricated Steel Pipe
8	300-3.2	Cofferdams	Structure Excavation & Backfill
9	303-1.6.1	General	Falsework
10	303-1.7.1	General	Placing Reinforcement
11	303-3.1	General	Prestressed Concrete Construction
12	304-1.1.1	Shop Drawings	Structural Steel
13	304-1.1.2	Falsework Plans	Structural Steel
14	304-2.1	General	Metal Hand Railings
15	306-2.1	General	Jacking Operations
16	306-3.1	General	Tunneling Operations
17	306-3.4	Tunnel Supports	Tunneling Operations
18	306-6	Remodeling Existing Sewer Facilities	Polyethylene Liner Installation
19	306-8	Microtunneling	Microtunneling Operations

Working drawings listed above as Items 4, 5, 8, 9, 11, 12, 13, 15 and 18 shall be prepared by a Civil or Structural Engineer registered by the State of California.

**2-5.3.3 Shop Drawings.** Shop drawings are drawings showing details of manufactured or assembled products proposed to be incorporated into the Work. Shop drawings required shall be as specified in the Special Provisions.

**2-5.3.4 Supporting Information.** Supporting information is information required by the Specifications for the purposes of administration of the Contract, analysis for verification of conformance with the Specifications, the operation and maintenance of a manufactured product or system to be constructed as part of the Work, and other information as may be required by the Engineer. Six copies of the supporting information shall be submitted to the Engineer prior to the start of the Work unless otherwise specified in the Special Provisions or directed by the Engineer. Supporting information for systems shall be bound together and include all manufactured items for the system. If resubmittal is not required, three copies will be returned to the Contractor. Supporting information shall consist of the following and is required unless otherwise specified in the Special Provisions:

- 1) List of Subcontractors per 2-3.2.
- 2) List of Materials per 4-1.4.
- 3) Certificates of Compliance per 4-1.5.
- 4) Construction Schedule per 6-1.
- 5) Spill Prevention and Emergency Response Plan per 7-8.5.3
- 6) Confined Space Entry Program per 7-10.4.5.1
- 7) Lean concrete base mix designs per 200-4
- 8) Concrete mix designs per 201-1.1.
- 9) Asphalt concrete mix designs per 203-6.1.
- 10) Pipeline layout diagrams per 207-2.1
- 11) Equipment and materials list per 307-1
- 12) Controller cabinet wiring diagrams per 307-17.2.2
- 13) Data, including, but not limited to, catalog sheets, manufacturer's brochures, technical bulletins, specifications, diagrams, product samples, and other information necessary to describe a system, product or item. This information is required for irrigation systems, street lighting systems, and traffic signals, and may also be required for any product, manufactured item, or system.

**2-5.4 Record Drawings.** The Contractor shall prepare and maintain a set of prints in the Engineer's Field Office on which the locations and description of all plumbing, mechanical, and electrical facilities, which were not detailed fully on the Plans, are marked in colored pencil. Such prints shall also indicate any authorized changes from the original Plans. Such prints shall be furnished to the Engineer before final Acceptance of the Work.

**2-6 WORK TO BE DONE.** The Contractor shall perform all work necessary to complete the Contract in a satisfactory manner. Unless otherwise provided, it shall furnish all materials, equipment, tools, labor and incidentals necessary to complete the Work.

All work under the Contract shall be performed in accordance with the highest standards prevailing in the trades unless otherwise specified on the Plans or in the Special Provisions. Unless otherwise specified, it is the intent that the Contractor will construct a complete facility ready for use.

**2-6.1 Manufacturer's Recommendations.** Where the manufacturer of any materials or equipment provides written recommendations or instructions for its use or method of installation (including labels, tags, manuals, or trade literature), such recommendations or instructions shall be complied with except where the Contract Documents specifically require deviations.

**2-6.2 Testing of Installed Components.** Where the specifications provide that any component of the Work is to be tested, calibrated or adjusted during or after installation, such testing shall be performed by a qualified firm, approved by the Engineer. The firm performing the testing or calibration shall be employed by and paid for by the Contractor.

**2-6.3 Training of Agency Personnel.** Where the specifications provide for training of Agency personnel in the use or maintenance of any component of the Work, the Contractor shall arrange for and pay for competent personnel to perform the training. Contractor shall schedule the training with the Engineer.

**2-7 SUBSURFACE DATA.** All soil and test hole data, groundwater elevations, and soil analyses shown on the Plans or included in the Specifications apply only at the location of the test holes and to the depths shown. Soil test reports for test holes which have been drilled are available for inspection at the office of the Engineer. Additional subsurface exploration may be performed by Bidders or the Contractor at their own expense.

The indicated groundwater elevation is that existing at the date specified in the data. It is the Contractor's responsibility to determine and allow for the groundwater elevation on the date the Work is performed. A difference in groundwater elevation between what is shown in soil boring logs and what is actually encountered during construction will not be considered as a basis for Extra Work per 3-3.

Opinions, recommendations or conclusions contained in any soils report, soil boring logs, subsurface materials investigation, geological report or other similar studies, tests or reports, prepared for the Agency, are not a part of the Contract. Contractor shall be responsible for forming its own opinions and conclusions from the facts set forth in such reports.

**2-8 RIGHTS-OF-WAY.** Rights-of-way, easements or rights-of-entry for the Work will be provided by the Agency. Unless otherwise provided, the Contractor shall make arrangements, pay for, and assume all responsibility for acquiring, using, and disposing of additional work areas and facilities temporarily required. The Contractor shall indemnify and hold the Agency harmless from all claims for damages caused by such actions.

## **2-9 SURVEYING**

**2-9.1 Permanent Survey Markers.** The Contractor shall notify the Engineer at least 7 Days before starting work to allow for the preservation of survey monuments, lot stakes (tagged), and bench marks. The Engineer, or the owner at its cost, shall file a Corner Record Form referencing survey monuments subject to disturbance in the Office of the County Surveyor prior to the start of construction and also prior to the completion of construction for the replacement of survey monuments. The Contractor shall not disturb survey monuments, lot stakes (tagged), or bench marks without the consent of the Engineer or the owner on Private Contracts. The Contractor shall bear the expense of replacing any that may be disturbed without permission. Replacement shall be done only under the direction of the Engineer by a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the state.

When a change is made in the finished elevation of the pavement of any roadway in which a permanent survey monument is located, the Contractor shall adjust the monument cover to the new grade within 7 Days of finished paving unless otherwise specified.

**2-9.2 Survey Service.** The Engineer will set only the horizontal and vertical control survey points shown on the Plans. These will be set prior to the commencement of construction. The Contractor shall preserve these points as well as any other surveys established by the Engineer for use by the Contractor for the duration of their usefulness. If any survey points established by Engineer are lost or disturbed and need to be replaced, such replacement shall be by the Engineer at the expense of the Contractor. The Contractor shall employ engineers or surveyors to perform adequate surveys and staking necessary to construct the Work to the lines, elevations and grades shown on the Plans and for the Engineer's use in checking such work. Copies of the field notes or diagrams used in setting stakes shall be promptly furnished to the Engineer.

**2-9.2.1 Open Areas.** Where dimensions are not given on the Plans for parking lots, landscaped areas or graded areas, distances shall be scaled. Unless otherwise indicated, straight grades and smooth vertical curves shall be set between indicated elevations. Finished surfaces shall be sloped to drain in order to eliminate ponding of water.

**2-9.2.2 Utilities.** Section 5-5.1 requires the Contractor's cooperation during the relocation of utilities, which may require the setting of lines and grades when needed by utility owners performing relocations.

**2-9.3 Contractor's Surveys.** Surveying by private engineers and surveyors on the Work shall conform to the quality and practice required by the Engineer.

**2-9.3.1 Errors in Surveys.** The Contractor is responsible for the accuracy of all surveys except those performed by the Engineer. To assure that a survey point set by the Engineer has not been disturbed since it was set and that it was accurately set, all surveys by the Contractor shall be based on at least two survey points set by the Engineer or by other governmental surveys, in accordance with good survey practice. Should discrepancies be found between such points, the Engineer shall be notified and construction shall not proceed until the discrepancy has been resolved.

**2-9.4 Line and Grade.** All Work upon completion shall conform to the lines, elevations, and grades shown on the Plans.

**2-9.5 Quantity Surveys.** The Engineer will perform all quantity surveys for payment purposes, however, in performing such quantity surveys, it may make use of surveys performed by the Contractor.

**2-9.6 Payment for Surveys.** Payment for performing all of the surveying and staking as required by the Specifications and such additional surveying and staking as required by the Contractor will be made at the lump sum price set forth in the Proposal and shall be full compensation for furnishing all labor, equipment, instruments and materials necessary to perform the Work. If no bid item for surveying is included in the Proposal, the cost of surveying shall be included in the prices bid for other applicable items of work.

**2-10 AUTHORITY OF BOARD AND ENGINEER.** The Board has the final authority in all matters affecting the Work. Within the scope of the Contract, the Engineer has the authority to enforce compliance with the Plans and Specifications. The Contractor shall promptly comply with instructions from the Engineer or its authorized representative.

On all questions relating to quantities, the acceptability of material, equipment, or work, the execution, progress or sequence of work, and the interpretation of Specifications or drawings, the decision of the Engineer is final and binding, and shall be precedent to any payment under the Contract, unless otherwise ordered by the Board.

**2-10.1 Decisions in Writing.** Any and all decisions of the Engineer interpreting Specifications or drawings shall be in writing. Any purported "interpretation" which is not in writing shall not be binding upon the Agency and should not be relied upon by the Contractor.

### **2-11 INSPECTION**

The Work is subject to inspection and approval of the Engineer. The Contractor shall notify the Engineer before noon of the working day before inspection is required. Work shall be done only in the presence of the Engineer, unless otherwise authorized. Any work done without proper inspection will be subject to rejection. The Engineer and any authorized representatives shall at all times have access to the Work during its construction at shops and yards as well as the Work site. The Contractor shall provide every reasonable facility for ascertaining that the materials and workmanship are in accordance with these specifications. Inspection of the Work shall not relieve the Contractor of the obligation to fulfill all conditions of the Contract.

**2-11.1 Permit Inspections.** The Contractor shall arrange for code compliance inspections by all agencies issuing permits for the Work. The Work shall not continue beyond mandatory inspection points without clearance from the controlling agency. Each agency involved shall be notified in accordance with the code they enforce or in accordance with their standard operating procedures. No extensions of time will be granted for delays occasioned by such inspections except where, through no fault of the Contractor, the inspection is delayed more than one Day beyond normal response time after proper notification has been given. It shall be the Contractor's responsibility to see that any required inspection record card is signed off before proceeding with the next phase of the Work and completely signed off on completion of the Work.

**2-11.2 Structural Observation.** When the plans indicate that "Structural Observation" of specific work is required prior to Permit Inspection, Contractor shall notify Engineer, in writing, at least five working days prior to the date Contractor plans to have the work ready for structural observation. If the work is not ready for structural observation on the date indicated, Contractor shall reimburse Agency the cost of structural observer's visit to the Work site. If the work to be observed is substantially complete but is found to need correction before approval by the structural observer, Contractor shall give notice of a new date, as required above.

**2-12 SPECIAL NOTICES.** When specified in the Specifications or as directed by the Engineer, any notice required to be given in accordance with this subsection shall be in writing, dated, and signed by the Contractor or the Engineer. Such notices shall be served by any of the following methods:

- a) Personal delivery with proof of delivery which may be made by declaration under penalty of perjury by any person over the age of 18 years. The proof of delivery shall show that delivery was performed in accordance with these provisions. Service shall be effective on the date of delivery. Notices given to the Contractor by personal delivery may be made to the Contractor's authorized representative at the Work site; or
- b) Certified mail addressed to the mailing address of the recipient postage prepaid; return receipt requested. Service shall be effective on the date of the receipt of the mailing.

Simultaneously, the Agency may send the same notice by regular mail. If a notice that is sent by certified mail is returned unsigned, then delivery shall be effective pursuant to regular mail, provided the notice that was sent by regular mail is not returned.

### **2-13 AGENCY PERSONNEL AND AUTHORITY**

**2-13.1 General.** The Board has complete authority for the project within the limits prescribed by law. Pursuant to resolutions duly adopted by the Board, the authority to perform certain functions has been delegated to the Director of Public Works. Agency staff personnel and Consultants delegated thereto by the Director are authorized to perform functions limited as set forth in the following list of personnel and designated duties.

**2-13.2 Engineer.** The Director of the Public Works Agency of the County of Ventura is the Engineer and has general authority to administer the Contract. The Engineer has the following specific authority:

(a) To issue Contract Change Orders (CCO) and to settle claims subsequent to Acceptance as follows:

<u>Original Contract Amount</u>	<u>Maximum Amount of any Change Order or Claim Settlement</u>
\$50,000 or less .....	\$5,000
greater than \$50,000 and not over \$250,000 .....	10% of the original Contract amount
greater than \$250,000 and not over \$3,950,000 .....	\$25,000 plus 5% of the original Contract cost in excess of \$250,000.
greater than \$3,950,000 .....	\$210,000

CCOs and claim settlements exceeding the amounts set forth above require Board approval.

- (b) To make final adjustments of quantities (FAQ) on unit price items.
- (c) To accept the Work when the Contractor has completed all obligations of the Contract, in accordance with the Plans, Specifications and other Contract Documents. The Engineer also has authority to make and record the Notice of Completion.
- (d) To approve progress and final payments under the Contract, including the provisions for withholding funds.
- (e) To determine whether performance on the Work is satisfactory. Satisfactory performance includes compliance with all contract requirements.
- (f) To approve the substitution of a Subcontractor, where allowed by law, if the listed Subcontractor does not object when notified.
- (g) To suspend the Work for the benefit of the Agency.
- (h) In the absence of the Agency Director, a Public Works Agency Department Director, as Deputy Director of Public Works, may exercise the Engineer's authority. Such action will be indicated by "Acting" with the Department Director's signature.

**2-13.3 Department Director (Public Works Agency).** The Department Director responsible for the project is designated in the Notice to Proceed. The Department Director has the following authority:

(a) To issue Contract Change Orders (CCO) as follows:

<u>Original Contract Amount</u>	<u>Maximum Amount of any Change Order</u>
Less than \$500,000.....	\$5,000
\$500,000 to \$1,000,000 .....	1% of Bid Price
Greater than \$1,000,000.....	\$10,000

- (b) To issue extensions of Contract time in accordance with the Contract Documents.
- (c) To make final adjustment of quantities where the total does not exceed the amounts listed in (a) above.
- (d) To approve the substitution of subcontractors, where allowed by law, if the listed Subcontractor does not object when notified.
- (e) To determine when the Work has been completed and acknowledge in writing the completion of the Work.

**2-13.4 Project manager.** The Project manager responsible for the project is designated in the Notice to Proceed. This person may also be referred to as Project Engineer. The Project manager has the following authority:

- (a) To interpret the Plans and Specifications.
- (b) To make minor changes in the location or features of the Work where no change in cost is involved. Such changes in cost may not be the net of multiple changes.
- (c) To approve substitutes for material and equipment specified by proprietary names when such material and equipment meet the Contract requirements.
- (d) To approve shop drawings and submittals.
- (e) To issue stop work orders when necessary to enforce the provisions of the Contract.
- (f) To make determinations of each Working Day to be charged against the Contract time in accordance with 6-7.3.
- (g) To take over a portion of the Work for Agency's use in accordance with 6-10.
- (h) To receive all correspondence and other documents from the Contractor.
- (i) To inspect the Work and perform Final Inspection subject to review by the Department Director and the Engineer.

**2-13.5 Inspector.** One or more inspectors will be assigned to the project by the Project manager. Substitutes may be used during absence of the assigned inspector. The Inspector has the following authority subject to review by the Project manager, Department Director and the Engineer:

- (a) To view and inspect the Work, sample and test components (at the Work site and at offsite manufacturing locations), and to discuss the Work with the Contractor's field representative.
- (b) To determine compliance with the Plans, Specifications and other Contract Documents and to issue warnings of noncompliance.
- (c) To issue stop work notices in the following two instances only:
  - 1) Where a safety hazard exists that has an immediate potential for serious injury or death.
  - 2) Where the operation in progress, if continued for even a short period of time, could be adverse to the Agency's interests.

#### **2-13.6 Other Agency Personnel and Consultants.**

**2-13.6.1 Materials Engineer.** The Materials Engineer is designated in the Notice to Proceed. The Materials Engineer may assign one or more Materials Inspectors to the project.

Materials Inspectors have authority to sample and test material at the Work site and at offsite manufacturing or storage locations. They may furnish available written test results to the Contractor's field representative. At batch plants, they may issue warnings of noncompliance, but stop notices require the signature of the Materials Engineer or Project manager.

**2-13.6.2 Surveyors & Technicians.** Surveyors and technicians shall have free access to the site to perform their duties but have no authority related to Contract administration.

**2-13.6.3 Other Persons.** Other Agency personnel who are not involved in construction administration and the general public may be present at the site because it is their present place of work, as client/customers, as visitors, as future users of the facility, or as persons who will maintain the completed facility. Where the facility is to continue in use during construction, work access for Agency workers and client/customers shall be maintained as provided in the Special Provisions. Where the facility (or portion where construction is being performed) is not in use during construction, admittance to the Work site by Agency personnel not involved in construction administration and visitors may be allowed by the Contractor or by the inspector, subject to compliance with safety regulations. Such persons have no authority under the Contract and the Agency is not responsible for their comments, suggestions or directions.

**2-13.6.4 Consultants.** Consultants hired by the Agency shall have free access to the site to perform their duties but have no authority related to Contract administration, unless such duties are specifically identified in writing to the Contractor. When so identified, Consultant may perform the duties of certain Agency personnel described above.

## SECTION 3 - CHANGES IN WORK

### 3-1 CHANGES REQUESTED BY THE CONTRACTOR

**3-1.1 General.** Changes in specified methods of construction may be made at the Contractor's request when approved in writing by the Engineer. Changes in the Plans and Specifications, requested in writing by the Contractor, which do not materially affect the Work and which are not detrimental to the Work or to the interests of the Agency, may be granted by the Board to facilitate the Work, when approved in writing by the Engineer. Nothing herein shall be construed as granting a right to the Contractor to demand acceptance of such changes.

**3-1.2 Payment for Changes Requested by the Contractor.** If such changes are granted, they shall be made at a reduction in cost or at no additional cost to the Agency. All costs to the Agency in reviewing the proposed change, or testing materials involved therein, shall be paid for by the Contractor, whether or not the change is approved.

### 3-2 CHANGES INITIATED BY THE AGENCY

**3-2.1 General.** The Agency may change the Plans, Specifications, character of the Work, or quantity of work, provided the total arithmetic dollar value of all such changes, both additive and deductive, does not exceed 25 percent of the Contract Price. Should it become necessary to exceed this limitation, the change shall be by written Supplemental Agreement between the Contractor and Agency, unless both parties agree to proceed with the change by Change Order.

Change orders shall be in writing and state the dollar value of the change or establish method of payment, any adjustment in Contract time, and, when negotiated prices are involved, shall provide for the Contractor's signature indicating its acceptance.

#### 3-2.2 Payment for Changes Initiated by the Agency.

**3-2.2.1 Contract Unit Prices.** If a change is ordered in an item of work covered by a Contract unit price, and such change does not involve a substantial change in the character of the Work from that shown on the Plans or included in the Specifications, an adjustment in payment will be made based upon the increase or decrease in quantity and the Contract unit price. In the case of such an increase or decrease in a Major Bid Item, the use of this basis for the adjustment of payment will be limited to that portion of the change which, together with all previous changes to that item, is not in excess of 25% of the total cost of such item based on the original quantity and Contract unit price.

If a change is ordered in an item of work covered by a Contract unit price, and such change does involve a substantial change in the character of the Work from that shown on the Plans or included in the Specifications, an adjustment in payment will be made in accordance with 3-2.2.3.

Should any Contract item be deleted in its entirety, payment will be made only for actual costs incurred prior to notification of such deletion.

**3-2.2.2 Stipulated Unit Prices.** Stipulated unit prices are those established by the Agency in the Contract Documents, as distinguished from Contract unit prices submitted by the Contractor. Stipulated unit prices may be used for the adjustment of Contract changes.

**3-2.2.3 Pricing.** Adjustments in payments for changes other than those set forth in 3-2.2.1 and 3-2.2.2 will be determined by agreement between Contractor and Agency. If unable to reach agreement, the Agency may direct the Contractor to proceed on the basis of Extra Work in accordance with 3-3 or as set forth in 3-2.2.4.

**3-2.2.4 Non-Agreed Prices.** Agency may issue a change order directing the Contractor to proceed at a price set by the Agency or on the basis of Extra Work. If the Agency sets a price for the work covered by the change order, Contractor is entitled to payment for such work in accordance with 3-3 to the extent payment in accordance with 3-3 exceeds the price set by the Agency.

### 3-3 EXTRA WORK

**3-3.1 General.** New or unforeseen work will be classed as "Extra Work" when the Engineer determines that it is not covered by Contract Unit Prices or Stipulated Unit Prices.

#### 3-3.2 Payment.

**3-3.2.1 General.** When the price for the Extra Work cannot be agreed upon, the Agency will pay for the Extra Work based on the accumulation of costs as provided herein.

### 3-3.2.2 Basis for Establishing Costs

**(a) Labor.** The cost of labor will be the current cost for wages prevailing for each craft or type of workers performing the Extra Work at the time the Extra Work is done, plus payment of health and welfare, pension, vacation, apprenticeship funds, and other direct costs included in the prevailing rates applicable to the project, as well as assessments or benefits required by lawful collective bargaining agreements. To the total of these labor costs, the labor surcharge set forth in the current CALTRANS Labor Surcharge and Equipment Rental Rates publication shall be applied.

The use of a labor classification which would increase the Extra Work cost will not be permitted unless the Contractor establishes the necessity for such additional costs.

Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for the equipment rental. The labor cost for foremen shall be proportioned to all of their assigned work and only that applicable to Extra Work shall be paid. A foreman is defined as a lead working journeyman.

Nondirect labor costs including superintendence, payroll taxes, all types of insurance, and all other labor costs, not specifically provided for, shall be considered to be paid for as part of the markup of 3-3.2.3(a)(1).

**(b) Materials.** The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available and delivered to the Work site in the quantities involved, plus sales tax, freight and delivery.

The Agency reserves the right to approve materials and sources of supply, or to supply materials to the Contractor if necessary for the progress of the Work. No markup shall be applied to any material provided by the Agency.

**(c) Tool and Equipment Rental.** No payment will be made for the use of tools which have a replacement value of \$200 or less.

Regardless of ownership, the rates to be used for determining equipment rental costs shall not exceed the following:

- (1) For equipment that is listed in the current CALTRANS Labor Surcharge and Equipment Rental Rates publication, the rates shown therein. The right of way delay and overtime/multiple shift factors contained therein shall be used as applicable.
- (2) For equipment not listed in said CALTRANS publication, the listed rates prevailing locally at equipment rental agencies, or distributors, at the time the work is performed.
- (3) For equipment rental that includes operators and helpers, the applicable cost from (1) or (2) above, plus the applicable labor costs as determined in accordance with (a) above.

The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.

Necessary loading and transportation costs for equipment used on the Extra Work shall be added to the other costs.

If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the Agency than holding it at the work site, it shall be returned, unless the Contractor elects to keep it at the work site at no expense to the Agency.

All equipment shall be acceptable to the Engineer, in good working condition, and suitable for the purpose for which it is to be used. Manufacturer's ratings and manufacturer's approved modifications shall be used to classify equipment and it shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

The reported rental rates for equipment already at the work site shall be for the duration of its use on the Extra Work, commencing at the time it is first put into actual operation on the Extra Work, plus the time required to move it from its previous site, and move it back to its previous site or to a closer site of next use.

**3-3.2.2 Basis for Establishing Costs (Continued)**

**(d) Other Items.** The Agency may authorize other items which may be required on the Extra Work. Such items include labor, service, material and equipment which are different in their nature from those required for the Work specified in the Contract and which are of a type not ordinarily available from the Contractor or any of its subcontractors.

Invoices covering all such items in detail shall be submitted with the request for payment.

**(e) Invoices.** Vendors' invoices for material, equipment rental, and other expenditures, shall be submitted with the request for payment. If the request for payment is not substantiated by invoices or other documentation, the Agency may establish the cost of the item involved at the lowest price which was current at the time of the report.

**3-3.2.3 Markup**

**(a) Work by Contractor.** The following percentage shall be added to the Contractor's costs and shall constitute the markup for all overhead and profits, and all other cost not specifically provided for:

- (1) Labor ..... 33%
- (2) Materials ..... 15%
- (3) Equipment Rental ..... 15%
- (4) Other Items and Expenditures .... 15%

To the sum of the cost and markups provided for in this section, 1 percent shall be added as compensation for bonding.

**(b) Work by Subcontractor.** When all or any part of the Extra Work is performed by a Subcontractor, the markup established in 3-3.2.3(a) shall be applied to the Subcontractor's actual cost of such work. A markup of 10% on the first \$5,000 of the subcontracted portion of the Extra Work and a markup of 5% on work in excess of \$5,000 of the subcontracted portion of the Extra Work may be added by the Contractor.

**3-3.3 Daily Extra Work Reports by Contractor.** When the price for the Extra Work cannot be agreed upon, the Contractor shall submit a Daily Extra Work Report to the Engineer on forms furnished by the Agency, together with applicable delivery tickets, listing all labor, materials, and equipment involved for that day, and for other services and expenditures when authorized. Failure to submit the Daily Extra Work Report, showing the labor and equipment hours and the quantity of materials used, by the close of the next Working Day may waive any rights for that day. Failure to submit fully completed Daily Extra Work Reports, with the required supporting documentation, within ten calendar days after the Engineer makes a written request for the such reports shall waive all rights for the work covered by the requested reports. An attempt shall be made to reconcile the Daily Extra Work Report daily, and it shall be signed by the Engineer and the Contractor. In the event of disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved immediately. Each party shall retain a signed copy of the Daily Extra Work Report. Daily Extra Work Reports by Subcontractors or others shall be submitted through the Contractor.

The Daily Extra Work Report shall:

- 1) Show names of workers, classifications, and hours worked.
- 2) Describe and list quantities of materials used.
- 3) Show type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable.
- 4) Describe other services and expenditures in such detail as the Agency may require.

In addition to the Daily Extra Work Reports, the Contractor shall furnish Certified Payroll Records for the labor included in the reports before payment will be made.

**3-4 CHANGED CONDITIONS.** The Contractor shall notify the Engineer in writing of the following work site conditions, hereinafter called changed conditions, promptly upon their discovery and before they are disturbed:

- 1) Subsurface or latent physical conditions differing materially from those represented in the Contract;
- 2) Unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character being performed; and
- 3) Material differing from that represented in the Contract which the Contractor believes may be 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.

The Engineer will promptly investigate conditions which appear to be changed conditions. If the Engineer determines that the conditions are changed conditions and that they will materially increase or decrease the costs of any portion of the Work, a Change Order will be issued adjusting the compensation for such portion of the Work in accordance with 3-2.2. If the Engineer determines that conditions are changed conditions and that they will materially affect the performance time, the Contractor, upon submitting a written request, will be granted an extension of time subject to the provisions of 6-6.

If the Engineer determines that the conditions of which it has been notified by the Contractor do not justify an adjustment in compensation, the Contractor will be so notified in writing. This notice will also advise the Contractor of its obligation to notify the Engineer, in writing, if the Contractor disagrees.

Should the Contractor disagree with such determination, it may submit a written notice of potential claim to the Engineer before commencing the disputed work. In the event of such a disagreement, the Contractor shall not be excused on account of that disagreement from any scheduled completion date provided for by the Contract, but shall proceed with all Work to be performed under the Contract. However, 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. The Contractor shall proceed as provided in 3-5.

The Contractor's failure to give notice of changed conditions promptly upon their discovery and before they are disturbed shall constitute a waiver of all claims in connection therewith.

**3-5 DISPUTED WORK.** If the Contractor and the Agency are unable to reach agreement on disputed work, the Agency may direct the Contractor to proceed with the Work. Payment shall be as later determined by mediation or arbitration, if the Agency and the Contractor agree thereto, or as fixed in a court of law.

Although not to be construed as proceeding under Extra Work provisions, the Contractor shall keep and furnish records of disputed work in accordance with 3-3.

## SECTION 4 - CONTROL OF MATERIALS

### 4-1 MATERIALS AND WORKMANSHIP

**4-1.1 General.** All materials, parts, and equipment furnished by the Contractor in the Work shall be new, high grade, and free from defects. Quality of work shall be in accordance with the generally accepted standards. Material and work quality shall be subject to the Engineer's approval.

Materials and work quality not conforming to the requirements of the Specifications shall be considered defective and will be subject to rejection. 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 Engineer.

If the Contractor fails to replace any defective or damaged work or material after reasonable notice, the Engineer may cause such work or materials to be replaced. The replacement expense will be deducted from the amount to be paid to the Contractor.

Used or secondhand materials, parts, and equipment may be used only if permitted by the Specifications.

**4-1.1.1 Materials Furnished by Agency.** Materials furnished by the Agency will be available at locations designated in the Special Provisions or if not designated in the Special Provisions, they will be delivered to a single location of Agency'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 Agency shall be considered as included in the price paid for the Contract item involving such furnished materials.

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 Agency 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.

**4-1.2 Protection of Work and Materials.** The Contractor shall provide and maintain storage facilities and employ such measures as will preserve the specified quality and fitness of materials to be used in the Work. Stored materials shall be reasonably accessible for inspection. The Contractor shall also adequately protect new and existing work and all items of equipment for the duration of the Contract.

The Contractor shall not, without the Agency's consent, assign, sell, mortgage, hypothecate, or remove equipment or materials which have been installed or delivered and which may be necessary for the completion of the Contract.

### 4-1.3 Inspection Requirements

**4-1.3.1 General.** Unless otherwise specified, inspection is required at the source for asphalt concrete pavement mixtures, structural concrete, metal fabrication, metal casting, welding, concrete pipe manufacture, protective coating application, and similar shop or plant operations. Steel pipe in sizes less than 450 mm (18 inches), vitrified clay and cast iron pipe in all sizes are acceptable upon certification as to compliance with the Specifications, subject to sampling and testing by the Agency. Standard items of equipment such as electric motors, conveyors, elevators, plumbing fixtures, etc., are subject to inspection at the Work site only. Special items of equipment such as designed electrical panel boards, large pumps, sewage plant equipment, etc., are subject to inspection at the source, normally only for performance testing. The Specifications may require inspection at the source for other items not typical of those listed in this section.

**4-1.3.2 Inspection of Materials Not Locally Produced.** When the Contractor intends to purchase materials, fabricated products, or equipment from sources located more than 80 km (50 miles) outside the geographical limits of the Agency, an inspector or accredited testing laboratory (approved by the Engineer), shall be engaged by the Contractor at its expense, to inspect the materials, equipment or process. This approval shall be obtained before producing any material or equipment. The inspector or representative of the testing laboratory shall evaluate the materials for conformance with the Plans and Specifications. The Contractor shall forward reports required by the Engineer. No materials or equipment shall be shipped nor shall any processing, fabrication or treatment of such materials be done without proper inspection by the approved agent. Approval by said agent shall not relieve the Contractor of responsibility for complying with the Contract requirements.

**4-1.3.3 Inspection by the Agency.** The Agency will provide all inspection and testing laboratory services within 80 km (50 miles) of the geographical limits of the Agency.

**4-1.3.4 Certificates of Compliance.** The Engineer may require certificates of compliance with the Specifications for materials or manufactured items produced outside of the Work site. Such certificates will not relieve the Contractor from the requirements of providing material and manufactured items complying with the Specifications even though they have been incorporated into the Work.

**4-1.4 Tests of Materials.** Before incorporation in the Work, the Contractor shall submit samples of materials, as the Engineer may require, at no cost to the Agency. The Contractor, at its own expense, shall deliver the materials for testing to the place and at the time designated by the Engineer. Unless otherwise provided, all initial testing and a reasonable amount of retesting shall be performed under the direction of the Engineer, and at no expense to the Contractor. If the Contractor is to provide and pay for testing, the Specifications will so state.

The Contractor shall notify the Engineer in writing, at least 15 Days in advance, of its intention to use materials for which tests are specified, to allow sufficient time to perform the tests. The notice shall name the proposed supplier and source of material.

If the notice of intent to use is sent before the materials are available for testing or inspection, or is sent so far in advance that the materials on hand at the time will not last but will be replaced by a new lot prior to use on the Work, it will be the Contractor's responsibility to re-notify the Engineer when samples which are representative may be obtained.

**4-1.5 Certification.** The Engineer may waive materials testing requirements of the Specifications and accept the manufacturer's written certification that the materials to be supplied meet those requirements. Materials test data may be required as part of the certification.

**4-1.6 Trade Names or Equals.** The Contractor may supply any of the materials specified or offer an equivalent. The Engineer shall determine whether the material offered is equivalent to that specified. Adequate time shall be allowed for the Engineer to make this determination.

Whenever any particular material, process, or equipment is indicated by patent, proprietary or brand name, or by name of manufacturer, such wording is used for the purpose of facilitating its description and shall be deemed to be followed by the words **or equal**. A listing of materials is not intended to be comprehensive, or in order of preference. The Contractor may offer any material, process, or equipment considered to be equivalent to that indicated. The substantiation of offers shall be submitted as provided in the Contract Documents.

The Contractor shall, at its expense, furnish data concerning items offered by it as equivalent to those specified. The Contractor shall have the material tested as required by the Engineer to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, and suitability are such that the item will fulfill its intended function.

Test methods shall be subject to the approval of the Engineer. Test results shall be reported promptly to the Engineer, who will evaluate the results and determine if the substitute item is equivalent. The Engineer's findings shall be final. Installation and use of a substitute item shall not be made until approved by the Engineer.

If a substitute offered by the Contractor is not found to be equal to the specified material, the Contractor shall furnish and install the specified material.

The specified Contract completion time shall not be affected by any circumstance developing from the provisions of this section.

**4-1.6.1 Compatibility with Design.** Where the size, configuration, weight, fastening locations, fastening strength, utility rough-in locations, and utility capacities of equipment or devices offered by the Contractor as equivalents do not conform to those provided for in the Contract Documents or those which are necessary for equipment or devices indicated by brand names, the Contractor shall bear all costs of redesign and changes in construction necessary to adapt the offered equipment or device to the Work.

Equipment or devices will not be considered "equal" where the life cycle cost of operation, utilities and maintenance of the offered alternate is greater than those listed by brand names. Life cycle costs shall mean utility charges (demand and usage charges), maintenance, operating personnel and replacement (equipment, installation and down time expenses) all reduced to an average annual rate using the current interest rate earned on funds invested by the County Treasurer.

**4-1.6.2 Trade Names Listed.** Where the Agency has listed products by brand or trade name on the Plans or in the Specifications, or both, this shall not be construed as meaning every product may be used without furnishing shop drawings, without redesign of the facility or without a change in utility rough-in requirements.

Where use of products listed on the Plans or in the Specifications, or both, or where use of a substitute proposed as an "equal" product requires shop drawings, redesign of the facility, or revisions in the size and location of rough-in utility connections, or in connecting work, the Contractor shall provide any necessary shop drawings, or shall cause the preparation of any necessary redesign or revisions to the Plans at its own expense and shall bear the full cost of any necessary additional construction or reconstruction work. No work described in shop drawings, a redesign, or a revision to the Plans shall be undertaken until such shop drawings, redesign, or revisions have been approved by the Engineer. Any proposed redesign or revision to the Plans shall be accompanied by complete computations and details prepared by an appropriate licensed design professional.

**4-1.7 Weighing Equipment.** All scales used for proportioning materials shall be inspected for accuracy and certified within the past 12 months by the State of California Bureau of Weights and Measures, by the County Director or Sealer of Weights and Measures, or by a scale mechanic registered with or licensed by the County.

The accuracy of the work of a scale service agency, except as stated herein, shall meet the standards of the California Business and Professions Code and the California Code of Regulations pertaining to weighing devices. A certificate of compliance shall be presented, prior to operation, to the Engineer for approval and shall be renewed whenever required by the Engineer at no cost to the Agency.

All scales shall be arranged so they may be read easily from the operator's platform or area. They shall indicate the true net weight without the application of any factor. The figures of the scales shall be clearly legible. Scales shall be accurate to within 1 percent when tested with the plant shut down. Weighing equipment shall be so insulated against vibration or moving of other operating equipment in the plant area that the error in weighing with the entire plant running will not exceed 2 percent for any setting nor 1.5 percent for any batch.

**4-1.8 Calibration of Testing Equipment.** Testing equipment, such as, but not limited to, pressure gages, metering devices, hydraulic systems, force (load) measuring instruments, and strain-measuring devices shall be calibrated by a testing agency acceptable to the Engineer at intervals not to exceed 12 months and following repairs, modification, or relocation of the equipment. Calibration certificates shall be provided when requested by the Engineer.

## SECTION 5 - UTILITIES

**5-1 LOCATION.** The Permittee (in the case of Private Contracts) and the Agency (in the case of Cash or Assessment Act Contracts), will search known substructure records and furnish the Contractor with copies of documents which describe the location of utility substructures, or will indicate on the Plans for the project those substructures (except for service connections) which may affect the Work. Information regarding removal, relocation, abandonment, or installation of new utilities will be furnished to prospective bidders.

Where underground main distribution conduits such as water, gas, sewer, electric power, telephone, or cable television are shown on the Plans, the Contractor shall assume that every property parcel will be served by a service connection for each type of utility.

As provided in Section 4216 of the California Government Code, at least 2 working days prior to commencing any excavation, the Contractor shall contact the regional notification center (Underground Service Alert of Southern California) and obtain an inquiry identification number.

The California Department of Transportation is not required by Section 4216 to become a member of the regional notification center. The Contractor shall contact it for location of its subsurface installations.

The Contractor shall determine the location and depth of all utilities, including service connections, which have been marked by the respective owners and which may affect or be affected by its operations. If no pay item is provided in the Contract for this work, full compensation for such work shall be considered as included in the prices bid for other items of work.

**5-2 PROTECTION.** The Contractor shall not interrupt the service function or disturb the support of any utility without authority from the owner or order from the Agency. All valves, switches, vaults, and meters shall be maintained readily accessible for emergency shutoff.

Where protection is required to ensure support of utilities located as shown on the Plans or in accordance with 5-1, the Contractor shall, unless otherwise provided, furnish and place the necessary protection at its expense.

Upon learning of the existence and location of any utility omitted from or shown incorrectly on the Plans, the Contractor shall immediately notify the Engineer in writing. When authorized by the Engineer, support or protection of the utility will be paid for as provided in 3-2.2.3 or 3-3.

The Contractor shall immediately notify the Engineer and the utility owner if any utility is disturbed or damaged. The Contractor shall bear the costs of repair or replacement of any utility damaged if located as noted in 5-1.

When placing concrete around or contiguous to any non-metallic utility installation, the Contractor shall at its expense:

1. Furnish and install a 50 mm (2 inch) cushion of expansion joint material or other similar resilient material; or
2. Provide a sleeve or other opening which will result in a 50 mm (2 inch) minimum-clear annular space between the concrete and the utility; or
3. Provide other acceptable means to prevent embedment in or bonding to the concrete.

Where concrete is used for backfill or for structures which would result in embedment, or partial embedment, of a metallic utility installation; or where the coating, bedding or other cathodic protection system is exposed or damaged by the Contractor's operations, the Contractor shall notify the Engineer and arrange to secure the advice of the affected utility owner regarding the procedures required to maintain or restore the integrity of the system.

**5-3 REMOVAL.** Unless otherwise specified, the Contractor shall remove all interfering portions of utilities shown on the Plans or indicated in the Bid documents as "abandoned" or "to be abandoned in place". Before starting removal operations, the Contractor shall ascertain from the Agency whether the abandonment is complete, and the costs involved in the removal and disposal shall be included in the Bid for the items of work necessitating such removals.

**5-4 RELOCATION.** When feasible, the owners responsible for utilities within the area affected by the Work will complete their necessary installations, relocations, repairs, or replacements before commencement of work by the Contractor. When the Plans or Specifications indicate that a utility installation is to be relocated, altered, or constructed by others, the Agency will conduct all negotiations with the owners and work will be done at no cost to the Contractor, except as provided in 301-1.6. Utilities which are relocated in order to avoid interference shall be protected in their position and the cost of such protection shall be included in the Bid for the items of work necessitating such relocation.

After award of the Contract, portions of utilities which are found to interfere with the Work will be relocated, altered or reconstructed by the owners, or the Engineer may order changes in the Work to avoid interference. Such changes will be paid for in accordance with 3-2.

When the Plans or Specifications provide for the Contractor to alter, relocate, or reconstruct a utility, all costs for such work shall be included in the Bid for the items of work necessitating such work. Temporary or permanent relocation or alteration of utilities requested by the Contractor for its convenience shall be its responsibility and it shall make all arrangements and bear all costs.

The utility owner will relocate service connections as necessary within the limits of the Work or within temporary construction or slope easements. When directed by the Engineer, the Contractor shall arrange for the relocation of service connections as necessary between the meter and property line, or between a meter and the limits of temporary construction or slope easements. The relocation of such service connections will be paid for in accordance with provisions of 3-3. Payment will include the restoration of all existing improvements which may be affected thereby. The Contractor may agree with the owner of any utility to disconnect and reconnect interfering service connections. The Agency will not be involved in any such agreement.

**5-5 DELAYS.** The Contractor shall notify the Engineer of its construction schedule insofar as it affects the protection, removal, or relocation of utilities. Said notification shall be included as a part of the construction schedule required in 6-1. The Contractor shall notify the Engineer in writing of any subsequent changes in the construction schedule which will affect the time available for protection, removal, or relocation of utilities.

The Contractor will not be entitled to damages or additional payment for delays attributable to utility relocations or alterations if correctly located, noted, and completed in accordance with 5-1.

The Contractor may be given an extension of time for unforeseen delays attributable to unreasonably protracted interference by utilities in performing work correctly shown on the Plans.

The Agency will assume responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities within the area affected by the Work if such utilities are not identified in the Contract Documents. The Contractor will not be assessed liquidated damages for any delay caused by failure of Agency to provide for the timely removal, relocation, or protection of such existing facilities.

If the Contractor sustains loss due to delays attributable to interferences, relocations, or alterations not covered by 5-1, which could not have been avoided by the judicious handling of forces, equipment, or plant, there shall be paid to the Contractor such amount as the Engineer may find to be fair and reasonable compensation for such part of the Contractor's actual loss as was unavoidable and the Contractor may be granted an extension of time.

**5-5.1 Cooperation During Utility Relocation.** When utilities are to be relocated during construction, the Contractor shall cooperate and coordinate with the respective utility owners so they may relocate their facilities to clear the Work. Delays in relocation of utilities which result from failure to cooperate and coordinate will not be a cause for an extension of time or Non-Working Days.

**5-6 COOPERATION.** When necessary, the Contractor shall so conduct its operations as to permit access to the Work site and provide time for utility work to be accomplished during the progress of the Work.

## SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK

**6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK.** The requirements of this section concerning submission of construction schedules shall not apply to projects where the time allowed to complete the Work is less than 25 Working Days or the total Contract Price bid is less than \$75,000 unless required by the special provisions.

The Contractor shall submit a construction schedule concurrently with the submittal of signed Contract, Contract bonds, and certificate of insurance. The Notice to Proceed will be delayed until the schedule is received. See 6-7.4, Starting of Contract Time.

When required by the Special Provisions, a revised schedule shall be submitted monthly prior to each progress payment closure date. Processing of the progress payment will be delayed until such revised schedule complying with this section is received.

The construction schedule shall be in the form of a Construction Element vs. Time Chart as shown in Appendix B-1 and a Work Complete vs. Time Chart as shown in Appendix B-2.

The B-1 Chart shall be in sufficient detail to show the chronological relationship of all activities of the project including, but not limited to, estimated starting and completion dates of various activities, submittal of shop drawings to the Engineer for approval, procurement of materials, and scheduling of equipment. The B-1 Chart shall recognize the requirements of 5-5. The B-1 Chart shall reflect obtaining all materials and completing all Work under the Contract within the specified time and in accordance with these Specifications. If the Contractor intends to complete the Work prior to the time for completion, the intended date of completion shall be set forth in the B-1 Chart and the Contractor shall execute a Contract Change Order that changes the number of Working Days allowed for completion to conform with such intended completion date. The Change Order shall not change the Contract Price.

The Contractor may submit a computer generated schedule in lieu of the form in Appendix B-1 and B-2, provided all of the elements shown on that form or specified herein are included.

An updated construction schedule shall be submitted prior to the next progress payment closure date whenever the actual percent Work complete versus percent time elapsed curve falls below and to the right of the dotted line shown on Appendix B-2.

If the Contractor desires to make a major change in its method of operations after commencing construction, or if its schedule fails to reflect the actual progress, it shall submit to the Agency a revised construction schedule in advance of beginning revised operations.

Revised and updated schedules shall show actual completion to the date of the revision in the lower segmented bar for each item.

The construction schedule shall be prepared as follows (see examples in Appendices C-1 and C-2):

1. On the B-1 Chart:
  - a. Enter the project name and Specification No. as shown on the notice inviting bids and the Contractors name.
  - b. List the items of Work either individually or combined where items are part of the same element of the Work.
  - c. Assign a value for each horizontal space plotting interval in Working Days as follows: 1 working day for total Contract time of less than 100 working days, 2 for 100 to 200 working days and 5 for longer projects. Enter the value used in the space provided in the lower part of the form.
  - d. At the end of performance time and draw a vertical line and label it "End Performance Time". Enter numbers at 10 times the plotting interval at the top of intermediate vertical lines.
  - e. Shade in a bar in the upper segmented section for each work item to indicate the period during which Work will be performed. Move-in time and delivery time for materials shall be shown if significant to the schedule.

## **6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK. (Continued)**

2. On the B-2 Chart:

- a. Enter the project name and Specification No. as shown on the notice inviting bids.
- b. At time intervals of 10 or 20 working days:
  - (1) Compute the cumulative dollar value of Work which is expected to be completed for each item of Work, including the value of the completed portion of lump-sum items.
  - (2) Divide the values computed in "b(1)" by the Total Contract Price to determine the percentage of the entire Contract planned for completion at the end of each time interval.
  - (3) Divide the days of performance time at the end of each time interval by the total Contract performance time to obtain the percentage of elapsed performance time.
- c. Plot each percentage of completion value figure computed in "b(2)" against the corresponding percentage of completion time computed in "b(3)" using scales on the bottom and left side of chart.
- d. Connect points plotted in "c" with a line which will show the planned progress for the entire job.

If the proposed percent Work complete versus percent time elapsed line falls below and to the right of the dotted line drawn on the B-2 Chart, the Contractor shall provide sufficient information and backup to show that the Work can be completed on time.

**6-1.1 Beginning of Work.** The issuance of Notice to Proceed by Agency shall constitute the Contractor's authority to enter upon the site of the Work and to begin operations provided it has also notified Engineer at least 24 hours in advance. Entry upon the site without authority will be treated as trespassing.

**6-1.2 Starting Work.** The Contractor may start work at any time after the Notice to Proceed is issued but work shall begin within 15 Days after the starting date for the Contract, or at such other time as may be indicated in the Special Provisions. The actual date on which the Contractor starts work will not affect the required time for completion as provided for in 6-7 and 6-7.1.

**6-1.3 Work Sequence.** If required by the Special Provisions, the Contractor shall start construction operations on that part of the Work designated by the Engineer.

**6-1.4 Resources Required.** The Work shall be conducted in such a manner and with sufficient materials, equipment, and labor to insure its completion in accordance with the Plans and Specifications within the time set forth in the Contract.

**6-2 PROSECUTION OF WORK.** To minimize public inconvenience and possible hazard and to restore streets and other Work areas to their original condition and former state of usefulness as soon as practicable, the Contractor shall diligently prosecute the Work to completion. If, in the Engineer's opinion, the Contractor fails to prosecute the Work to the extent that the above purposes are not being accomplished, the Contractor shall, upon orders from the Engineer, immediately take the steps necessary to fully accomplish said purposes. All costs of prosecuting the Work as described herein shall be absorbed in the Contractor's bid. Should the Contractor fail to take the necessary steps to fully accomplish said purposes, after orders of the Engineer to do so, the Engineer may suspend the Work in whole or in part, until the Contractor takes said steps.

As soon as possible under the provisions of these Specifications, the Contractor shall backfill all excavations and restore to usefulness all improvements existing prior to the start of the Work.

If Work is suspended through no fault of the Agency, all expenses and losses incurred by the Contractor during such suspensions shall be borne by the Contractor. If the Contractor fails to properly provide for public safety, traffic, and protection of the Work during periods of suspension, the Agency may elect to do so, and deduct the cost thereof from monies due the Contractor. Such action will not relieve the Contractor from liability.

## **6-3 SUSPENSION OF WORK**

**6-3.1 General.** The Work may be suspended in whole or in part when determined by the Engineer that the suspension is necessary in the interest of the Agency. The Contractor shall comply immediately with any written order of the Engineer. Such suspension shall be without liability to the Contractor on the part of the Agency except as otherwise specified in 6-6.3.

**6-3.2 Archaeological and Paleontological Discoveries.** If discovery is made of items of archaeological or paleontological interest, the Contractor shall immediately cease excavation in the area of discovery and shall not continue until ordered by the Engineer. When resumed, excavation operations within the area of discovery shall be as directed by the Engineer.

Discoveries which may be encountered may include, but not be limited to, dwelling sites, stone implements or other artifacts, animal bones, human bones and fossils.

The Contractor shall be entitled to an extension of time and compensation in accordance with the provisions of 6-6.

**6-3.3 Temporary Suspension of Work.** Should suspension of Work be ordered by reason of the failure of the Contractor to carry out orders or to perform any provisions of the Contract; or by reason of weather conditions being unsuitable for performing any item or items of Work; the Contractor, at its expense, shall do all the work necessary to provide a safe, smooth, and unobstructed passageway through construction for use by public traffic during the period of such suspension. In the event that the Contractor fails to perform the work above specified, the Agency may perform such work and the cost thereof will be deducted from monies due or to become due the Contractor.

If the Engineer orders a suspension of all of the Work, or a portion of the Work which is the current controlling operation or operations, due to unsuitable weather or to such other conditions as are considered unfavorable to the suitable prosecution of the Work, the days on which the suspension is in effect shall not be considered Working Days.

If a portion of Work at the time of such suspension is not a current controlling operation or operations, but subsequently does become the current controlling operation or operations, the determination of Working Days will be made on the basis of the then current controlling operation or operations.

If a suspension of Work is ordered by the Engineer due to the failure on the part of the Contractor to carry out orders given or to perform any provision of the Contract, the Days on which the suspension order is in effect shall be considered Working Days if such days are Working Days as defined.

#### **6-4 TERMINATION OF THE CONTRACT FOR DEFAULT..**

**6.4.1 General.** If, prior to the acceptance of the Work, the Contractor:

- a) becomes insolvent, assigns its assets for the benefit of its creditors, is unable to pay its debts as they become due, or is otherwise financially unable to complete the Work,
- b) abandons the Work by failing to report to the Work site and diligently prosecute the Work to completion,
- c) disregards written instructions from the Agency or materially violates provisions of the Contract Documents,
- d) fails to prosecute the Work according to the schedule approved by the Engineer,
- e) disregards laws or regulations of any public body having jurisdiction, or
- f) commits continuous or repeated violations of regulatory or statutory safety requirements, then the Agency will consider the Contractor in default of the Contract.

Notices, and other written communications regarding default between the Contractor, the Agency, and the Surety shall be transmitted in accordance with 2-12.

**6-4.2 Notice to Cure.** The Agency will issue a written notice to cure the default to the Contractor and its Surety. The Contractor shall commence satisfactory corrective actions within 5 Working Days after receipt.

**6-4.3 Notice of Termination for Default.** If the Contractor fails to commence satisfactory corrective action within 5 Working Days after receipt of the notice to cure, or to diligently continue satisfactory and timely correction of the default thereafter, then the Agency will consider the Contractor in default of the Contract and:

- a) will terminate the Contractor's right to perform under the Contract by issuing a written notice of termination for default to the Contractor and its Surety,
- b) may use any materials, equipment, tools or other facilities furnished by the Contractor to secure and maintain the Work site, and
- c) may furnish labor, equipment, and materials the Agency deems necessary to secure and maintain the Work site. The provisions of this subsection shall be in addition to all other legal rights and remedies available to the Agency.

**6-4.4 Responsibilities of the Surety.** Upon receipt of the written notice of termination for default, the Surety shall immediately assume all rights, obligations and liabilities of the Contractor under the Contract. If the Surety fails to protect and maintain the Work site, the Agency may do so, and may recover all costs incurred. The Surety shall notify the Agency that it is assuming all rights, obligations and liabilities of the Contractor under the Contract and all money that is due, or would become due, to the Contractor shall be payable to the Surety as the Work progresses, subject to the terms of the Contract.

Within 15 Working Days of receipt of the written notice of termination for default, the Surety shall submit to the Agency a written plan detailing the course of action it intends to take to remedy the default. The Agency will review the plan and notify the Surety if the plan is satisfactory. If the Surety fails to submit a satisfactory plan, or if the Surety fails to maintain progress according to the plan accepted by the Agency, the Agency may, upon 48 hours written notice, exclude the Surety from the premises, take possession of all material and equipment, and complete the Work in any way the Agency deems to be expedient. The cost of completing the Work by the Agency shall be charged against the Surety and may be deducted from any monies due, or which would become due, the Surety. If the amounts due under the Contract are insufficient for completion, the Surety shall pay to the Agency, within 30 days after the Agency submits an invoice, all costs in excess of the remaining Contract Price.

**6-4.5 Payment.** The Surety will be paid for completion of the Work in accordance with 9-3 less the value of damages caused to the Agency by acts of the Contractor.

**6-5 TERMINATION OF CONTRACT.** The Board may terminate the Contract at its own discretion or when conditions encountered during the Work make it impossible or impracticable to proceed, or when the Agency is prevented from proceeding with the Contract by act of God, by law, or by official action of a public authority.

The Agency will issue a written notice of termination for convenience in accordance with 2-12. Upon receipt, the Contractor shall immediately cease work, except work the Contractor is directed to complete by the Engineer or required to complete for public safety and convenience. The Contractor shall immediately notify Subcontractors and suppliers to immediately cease their work.

The Contractor will be paid without duplication for:

- a) work completed in accordance with the Contract Documents prior to the effective date of termination for convenience;
  - b) reasonable costs incurred in settlement of terminated contracts with Subcontractors, suppliers and others;
- and
- c) reasonable expenses directly attributable to termination.

The Contractor shall submit a final termination settlement proposal to the Agency no later than 90 days from the effective date of termination, unless extended, in writing, by the Agency upon written request by the Contractor.

If the Contractor fails to submit a proposal, the Agency may determine the amount, if any, due the Contractor as a result of the termination. The Agency will pay the Contractor the amount it determines to be reasonable. If the Contractor disagrees with the amount determined by the Agency as being reasonable, the Contractor shall provide notice to the Agency within 30 days of receipt of payment. Any amount due shall be as later determined by arbitration, if the Agency and the Contractor agree thereto, or as fixed in a court of law.

## **6-6 DELAYS AND EXTENSIONS OF TIME**

**6-6.1 General.** If delays are caused by unforeseen events beyond the control of the Contractor, such delays will entitle the Contractor to an extension of time as provided herein, but the Contractor will not be entitled to damages or additional payment due to such delays, except as provided in 6-6.3. Such unforeseen events may include war, government regulations, labor disputes, strikes, fires, floods, adverse weather necessitating cessation of work, other similar action of the elements, inability to obtain materials, equipment or labor, required Extra Work, or other specific events as may be further described in the Specifications.

No extension of time will be granted for a delay caused by the Contractor's inability to obtain materials unless the Contractor furnishes to the Engineer documentary proof of the inability to obtain such materials in a timely manner in accordance with the sequence of the Contractor's operations and the approved construction schedule.

If delays beyond the Contractor's control are caused by events other than those mentioned above, but substantially equal in gravity to those enumerated, and an extension of time is deemed by the Engineer to be in the best interests of the Agency, an extension of time may be granted, but the Contractor will not be entitled to damages or additional payment due to such delays, except as provided in 6-6.3.

If delays beyond the Contractor's control are caused solely by action or inaction by the Agency, such delays will entitle the Contractor to an extension of time as provided in 6-6.2.

**6-6.2 Extensions of Time.** Extensions of time, when granted, will be based upon the effect of delays to the Work as a whole and will not be granted for noncontrolling delays to minor included portions of Work unless it can be shown that such delays did, in fact, delay the progress of the Work as a whole.

**6-6.3 Payment for Delays to Contractor.** The Contractor will be compensated for damages incurred due to delays for which the Agency is responsible if such delays are unreasonable in the circumstances involved and were not within the contemplation of the parties when the Contract was awarded to the Contractor and delay the Work as a whole. Such actual costs will be determined by the Engineer. The Agency will not be liable for, and in making this determination the Engineer will exclude, all damages which the Engineer determines the Contractor could have avoided by any reasonable means including, without limitation, the judicious handling of forces, equipment, or plant.

**6-6.4 Written Notice and Report.** If the Contractor desires payment for a delay as specified in 6-6.3 or an extension of time, it shall, within 30 Days after the beginning of the delay, file with the Agency a written request and report as to the cause and extent of the delay. The request for payment or extension must be made at least 15 Days before the specified completion date. Failure by the Contractor to file these items within the time specified will be considered grounds for refusal by the Agency to consider such request.

**6-6.4.1 Documentation of Delays.** When the Contractor requests an extension of time for delay due to inability to obtain materials or equipment, the documentary proof required by 6-6.1 shall include the following:

1. Date Engineer was notified of delay.
2. Date the delay began.
3. Exact description of material or equipment causing delay.
4. Documentation showing when and from whom ordered.
5. Documentation of promise to deliver.
6. Documentation of actual delivery date.
7. Description of how late delivery caused delay (include construction schedule).
8. Documentation of measures taken to get prompt delivery.
9. Documentation of attempts to get delivery from other sources.
10. Description of steps taken in project scheduling to minimize effects of late delivery.
11. Description of steps taken to get project back on schedule after actual delivery.
12. Statement of actual time lost as a result of late delivery.

**6-7 TIME OF COMPLETION**

**6-7.1 General.** The Contractor shall complete the Work within the time set forth in the Contract. The Contractor shall complete each portion of the Work within such time as set forth in the Contract for such portion. Unless otherwise specified, the time of completion of the Contract shall be expressed in Working Day

**6-7.2 Working Day.** A Working Day is any day within the period between the start of the Contract time as defined in 6-1 and the date provided in the Contract for completion or upon field acceptance by the Engineer of all Work provided for in the Contract, whichever occurs first, other than:

- (1) Saturday,
- (2) Sunday,
- (3) any day designated as a holiday by the Agency,
- (4) any other day designated as a holiday in a Master Labor Agreement entered into by the Contractor or on behalf of the Contractor as an eligible member of a Contractor Association,
- (5) any day the Contractor is prevented from working at the beginning of the workday for cause as defined in 6-6.1,
- (6) any day the Contractor is prevented from working during the first 5 hours of the workday with at least 60 percent of the normal work force for cause as defined in 6-6.1.

**6-7.2.1 Holidays.** Solely for the purposes of paragraph (3) of 6-7.2, the following days are designated as holidays by the Agency.

	A	B
<u>MONTH</u>	<u>AGENCY EMPLOYEE HOLIDAYS</u>	<u>OTHER DESIGNATED HOLIDAYS</u>
January .....	1st day; 3rd Monday .....	None
February.....	3rd Monday .....	12th day
March.....	None.....	31st day
March-April .....	None.....	One Friday between March 21 and April 23 designated as Good Friday
May .....	Last Monday .....	None
June .....	None.....	None
July.....	4th day .....	None
August.....	None.....	None
September .....	1st Monday .....	9th day
October .....	None.....	2nd Monday
November .....	11 <sup>th</sup> day; 4th Thursday.....	the Friday following the 4th Thursday
December .....	25th .....	23rd day, only if Thursday or Friday; 24th day; 31st day

If any day listed above falls on Saturday, the preceding Friday is the holiday. If any day listed above falls on Sunday, the succeeding Monday is the holiday.

No extra holiday shall result when such Friday or Monday is already designated as a holiday.

A copy of a Working Day calendar incorporating the above-listed holidays and used by the Agency for Contract time accounting purpose will be furnished to the Contractor upon request.

The term "holiday" as used in this section shall not be construed as being the same as "holiday" within the meaning of 7-2.2.

The Contractor may perform work on the holidays designated in Column A above provided it has obtained prior written approval of the Engineer at least two Days in advance of performing the work. The Contractor may perform work on the holidays designated in Column B above provided the Contractor notifies the Engineer two Days in advance of the holiday.

**6-7.2.2 Landscape Maintenance Period.** Where a landscape maintenance period is specified, the portion of the time in such period that follows the completion of all other Work required by the Contract shall not be Working Days for Contract time accounting.

**6-7.3 Contract Time Accounting.** The Engineer will make a daily determination of each Working Day to be charged against the Contract time. These determinations will be discussed and the Contractor will be furnished a periodic statement showing the allowable number of Working Days of Contract time, as adjusted, at the beginning of the reporting period. The statement will also indicate the number of Working Days charged during the reporting period and the number of Working Days of Contract time remaining. If the Contractor does not agree with the statement, the Contractor must file a written protest within 15 Days after receipt, setting forth the facts of the protest. Otherwise, the statement will be deemed to have been accepted.

**6-7.4 Starting Date for Contract Time and Notice to Proceed.** The starting date for Contract time accounting will be determined by adding the number of Days indicated on the Proposal form to the date the Contract is awarded, however the Agency may, at its option, delay the starting date by not more than 60 calendar Days if necessary to obtain permits, rights-of-way, or approval of federal or State authorities, or when prevented from starting the project due to causes beyond its control. Notice to Proceed will be issued within 7 calendar Days after the Contract, bonds, certificates of insurance and other documents have been returned, properly completed by the Contractor, unless the starting date is delayed as herein provided. If the Agency delays the Contract starting date, Notice to Proceed will be issued at least 7 calendar Days prior to the new starting date. Any delay caused by failure of the Contractor to properly complete or timely return the Contract Documents shall not change the Contract starting date and shall not be a cause for extending the Contract time. The Notice of Award will indicate a probable Contract starting date. The Notice to Proceed will indicate the actual Contract starting date, computed as herein described.

## **6-8 COMPLETION, ACCEPTANCE AND WARRANTY.**

**6-8.1 Completion and Acceptance.** Acknowledgment of completion of the Work will occur prior to Acceptance by the Agency. Acceptance will only occur after all Contract requirements have been fulfilled, such as training, submission of warranties, maintenance manuals, record drawings, Release on Contract and the like. Acceptance by the Agency will occur when the Engineer signs the Notice of Completion. The Work will be inspected by the Engineer promptly upon receipt of the Contractor's written assertion that the Work has been completed. If, in the Engineer's judgment, the Work has been completed in accordance with the Plans and Specifications, the Engineer will acknowledge completion of the Work. Completion of the Work, as used above, shall include the Contractor showing evidence of having received an occupancy clearance from Building and Safety, or other permit issuing agency, when a building, plumbing electrical, grading, or other permit is required for the Work. The Engineer will, in acknowledging completion of the Work, set forth in writing the date when the Work was completed. This will be the date when the Contractor is relieved from responsibility to protect the Work. This will also be the date to which liquidated damages will be computed.

### **6-8.2 Warranty and Correction**

**6-8.2.1 Warranty** The Contractor warrants to the Agency that materials and equipment furnished under the Contract will be new, unless otherwise specified in the Contract Documents, and of good quality, that the Work will be free from defects in materials and workmanship and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective by the Agency. This warranty excludes damage or defect caused by abuse (other than by the Contractor or those under the control of the Contractor), modifications not executed by the Contractor, or improper or insufficient maintenance. This warranty excludes normal wear and tear. Nothing in this warranty is intended to limit any manufacturer's warranty which provides the Agency with greater warranty rights.

**6-8.2.2 Correction Period** For a period of one (1) year from the date of acceptance of the Work by the Agency, the Contractor shall repair or replace any defective workmanship or materials or Work not in conformance with the Contract Documents after notice to do so from the Engineer, and within the time specified in the notice. If the Contractor fails to make such repair or replacement within the time specified in the notice, the Agency may perform the repair or replacement and the Contractor and the Contractor's sureties shall be liable for the cost thereof. The one (1) year period referenced in this section 6-8.2.2 applies only to the Contractor's obligation to repair or replace defective workmanship or materials or Work not in conformance with the Contract Documents and is not intended to constitute a period of limitations for any other rights or remedies the Agency may have regarding the Contractor's other obligations under the Contract Documents.

**6-8.3 No Waiver of Legal Rights.** The Agency shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and Acceptance of the Work and payment therefor from showing the true amount and character of the Work performed and materials furnished by the Contractor, nor from showing that any such measurement, estimate, or certificate is untrue or is incorrectly made, nor that the Work or materials do not in fact conform to the Contract.

The Agency shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor or its sureties, or both, such damages as it may sustain by reason of the Contractor's failure to comply with the terms of the Contract.

Neither the Acceptance by the Engineer or by its representative, nor any payment for or Acceptance of the whole or any part of the Work, nor any extension of time, nor any possession taken by the Engineer shall operate as a waiver of any portion of the Contract or of any power herein reserved, or of any right to damages.

A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

**6-8.4 Landscape Maintenance Period.** Final Acceptance of the Contract shall follow the satisfactory completion of all Contract Work, including the landscape maintenance period if one is specified.

**6-8.5 Non-complying Work.** Neither the final certificate of payment nor any provision in the Contract Documents, nor partial or entire occupancy of the premises by the Agency, shall constitute an Acceptance of Work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.

**6-8.6 Written Warranties.** The Contractor shall obtain and deliver to the Engineer all written warranties required to be furnished by the Specifications. Each of such warranty shall be underwritten by the Contractor for the full period prescribed therein, and shall bear its endorsement to such effect.

**6-9 LIQUIDATED DAMAGES.** Failure of the Contractor to complete the Work within the time allowed will result in damages being sustained by the Agency. Such damages are, and will continue to be, impracticable and extremely difficult to determine. For each consecutive calendar day in excess of the time specified, as adjusted in accordance with 6-6, for completion of the Work the Contractor shall pay to the Agency, or have withheld from monies due it, the sum of \$250, unless otherwise provided in the Contract Documents.

Execution of the Contract under these Specifications shall constitute agreement by the Agency and Contractor that \$250 per day is the minimum value of the costs and actual damage caused by failure of the Contractor to complete the Work within the allotted time, that such sum is liquidated damages and shall not be construed as a penalty, and that such sum may be deducted from payments due the Contractor if such delay occurs.

**6-10 USE OF IMPROVEMENT DURING CONSTRUCTION.** The Agency reserves the right to take over and utilize all or part of any completed facility or appurtenance. The Contractor will be notified in writing in advance of such action. Such action by the Agency will relieve the Contractor of responsibility for injury or damage to said completed portions of the improvement resulting from use by public traffic or from the action of the elements or from any other cause, except injury or damage resulting from the Contractor's operations or negligence. The Contractor will not be required to reclean such portions of the improvement before field completion, except for cleanup made necessary by its operations. Nothing in this section shall be construed as relieving the Contractor from full responsibility for correcting defective work or materials.

In the event the Agency exercises its right to place into service and utilize all or part of any completed facility or appurtenance, the Agency shall assume the responsibility and liability for injury to persons or property arising out of or resulting from the utilization of the facility or appurtenance so placed into service, except for any willful or negligent act or omission by the Contractor, Subcontractor, their officers, employees or agents.

**6-10.1 Use of Improvements - Exceptions.** The provisions of 6-10 shall not apply to projects for the repair, modification, enlargement or improvement of existing facilities that are to remain in use during construction except where a portion of the project which is completely independent from the rest of the Work can be completed and put into use by the Agency.

On projects on public roads, after satisfactory completion of an isolated section of the Work involving roadway improvements or repairs, when all temporary signs and other temporary Contractor facilities have been removed, the section is not being used as a detour, the section is no longer under the Contractor's control, and the section is opened to public traffic through the end of the Contract period, that section of the Work shall be taken over by the Agency as provided in 6-10. The Contractor shall indicate to the Engineer in writing when the conditions of this paragraph have been complied with and shall specify the limits of the section involved. Any taking over of the Work by the Agency shall be effective only when formal written notification is issued by the Agency.

**6-11 NOTICE OF POTENTIAL CLAIM FOR ADDITIONAL COMPENSATION.** Procedures for notice of claims in specific situations and circumstances are provided in the following sections:

- 3-4 ..... Changed Conditions
- 6-6.4 ..... Delay and Extensions of Time
- 6-7.3 ..... Contract Time Accounting

Compliance with this section is not prerequisite to assertion of a claim involving those sections or based on differences in measurements or errors of computation as to Contract quantities.

Compliance with the provisions of this section is required in all other situations and circumstances.

It is the intention of this section that differences arising between the parties under and by virtue of the Contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action taken to resolve such differences.

The Contractor shall give the Engineer written notice of a potential claim, setting forth: (1) the reasons for which the Contractor believes additional compensation will or may be due; (2) the nature of the costs involved; and (3) insofar as possible, the amount of the potential claim.

If the claim is based upon an act or failure to act by the Engineer, the said notice must be given to the Engineer prior to the date when the work giving rise to the potential claim is commenced; in all other cases the said notice must be given to the Engineer within 15 Days after the happening of the event, thing or occurrence giving rise to the potential claim.

The Contractor shall not be entitled to the payment of any additional compensation where the written notice of potential claim has not been given to the Engineer in the manner required by and within the time limitations of this section.

**6-12 DISPUTES AND CLAIMS; PROCEDURE.**

**6-12.1 GENERAL.** Any and all decisions made on appeal pursuant to this section shall be in writing. Any "decision" purportedly made pursuant to this section which is not in writing shall not be binding upon the Agency and should not be relied upon by the Contractor.

Filing or giving the notices required under 3-4, 6-6.4, 6-7.3 and 6-11 is prerequisite to recovery under a Contractor's claim for additional compensation; nothing in this section shall excuse the Contractor from its duty to file or give the required notices, or from performing other duties required by the Contract Documents.

**6-12.2 ADMINISTRATIVE REVIEW.** Prior to proceeding under 6-12.3 or filing a Complaint in Arbitration, the Contractor shall exhaust its administrative remedies by submitting its claim for review and decision by the following Agency staff in the following sequence:

Project Manager, responsible for the project  
Department Director (Public Works Agency), responsible for the project.  
Director of the Public Works Agency (the Engineer)

If the Contractor disputes the Project Manager's decision on its claim, the Contractor shall submit the claim to the Department Director. If the Contractor disputes the Department Director's decision on its claim, the Contractor shall submit the claim to the Engineer. Agency staff decisions shall state the portion of the claim that is undisputed if any.

The Project Manager may elect to forward a claim submitted by the Contractor directly to the Department Director. The Project Manager must give the Contractor notice of that election and the Contractor may supplement its claim within 7 Days of such notice (unless the parties agree in writing to a different time) and its claim will be deemed submitted on the earlier of the day it supplements its claim, the day it states in writing that it will not supplement its claim or the day time to supplement expires. The Department Director may forward a claim timely submitted by the Contractor directly to the Engineer instead of making a decision on the claim, in which case no notice or opportunity to supplement the claim is required, and the claim shall be deemed timely submitted to the Engineer.

The Engineer's decision on the claim shall be the Agency's final decision.

Claims submitted to the Department Director and the Engineer shall be submitted in writing and shall include:

- a. A copy of the disputed decision.
- b. A statement as to why the Contractor believes the decision is in error.
- c. All information, argument, documents and evidence (collectively, materials) that the Contractor wishes to have considered in the review. Where the request for review is made to the Engineer, in lieu of resubmitting materials which have already been submitted to the Department Director, the Contractor may include with the request a list of the materials the Contractor wants the Engineer to consider. Any additional materials and evidence not previously submitted to the Department Director shall be included with the request to the Engineer, if the Contractor wishes them to be considered. If relevant evidence is not available at the time the request is made to the Department Director or the Engineer, the Contractor shall identify such evidence and include a statement as to when such evidence will be submitted.

The Project Manager shall issue a decision on a claim within 10 Days of receipt; if the Project Manager does not do so, then the Project manager will be deemed to have decided to reject the claim in its entirety as of the conclusion of the 10th Day after receipt. The Contractor shall submit a claim to the Department Director for review and decision within 7 Days of receipt of the Project Manager's decision or of the time the Project Manager is deemed to have decided to reject the claim, whichever is applicable. The Department Director shall issue a decision on a claim within 10 Days of the timely submission of the claim; if the Department Director does not do so, then the Department Director will be deemed to have decided to reject the claim in its entirety as of the conclusion of the 10th Day after timely submission. The Contractor shall submit a claim to the Engineer for review and decision within 7 Days of receipt of the Department Director's decision or of the time the Department Director is deemed to have decided to reject the claim, whichever is applicable. If a claim is timely submitted to the Engineer and the Engineer fails to issue a decision on that claim within the time limits prescribed for issuing a written statement under Public Contract Code, section 9204, subdivision (d)(1), the Engineer shall be deemed to have decided to reject the claim in its entirety. At any time after the Project Manager receives a claim, the Agency and Contractor may agree in writing to different time limits than those set forth in this paragraph.

**6-12.3 MEET AND CONFER; MEDIATION** If the Contractor disputes the Agency's final decision, the Contractor 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 Agency shall schedule a meet and confer conference within 30 Days for settlement of the dispute.

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 Agency shall provide the Contractor a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 Days after the Agency 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 Agency and the Contractor sharing the associated costs equally. The Agency

and Contractor shall agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the Agency and Contractor 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.

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.

Failure by the Agency to meet the time requirements of this section shall result in the portion of the claim that remains in dispute being deemed rejected in its entirety.

The parties may agree to waive, in writing, mediation under this section.

**6-12.4 ARBITRATION.** Claims and disputes arising under or related to the performance of the Contract, for which mediation under 6-12.3 was waived or unsuccessful except for claims which have been released by execution of the "Release on Contract" as provided in 9-4, shall be resolved by arbitration unless the Agency and the Contractor agree in writing, after the claim or dispute has arisen, to waive arbitration and to have the claim or dispute litigated in a court of competent jurisdiction. Arbitration shall be pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2 of the Public Contract Code and the regulations promulgated thereto, Chapter 4 (commencing with Section 1300) of Division 2 of Title 1 of the California Code of Regulations. The arbitration decision shall be decided under and in accordance with California law, supported by substantial evidence and, in writing, contain the basis for the decision, findings of fact, and conclusions of law.

Arbitration shall be initiated by a Complaint in Arbitration made in compliance with the requirements of said Chapter 4. A Complaint in Arbitration by the Contractor shall be filed not later than 90 calendar Days after receipt of the final written decision of the Agency on the claim or dispute or within 300 Days after Acceptance of the Work by the Agency if no written decision has been issued. For the purposes of this section, "Acceptance of the Work by the Agency" shall be defined as the date the Notice of Completion is filed.

Where an election is made by either party to use the Simplified Claims Procedure provided under Sections 1340-1346 of said Chapter 4, the parties may mutually agree to waive representation by counsel.

All contracts valued at more than \$25,000 between the Contractor and its subcontractors and suppliers shall include a provision that the subcontractors and suppliers shall be bound to the Contractor to the same extent that the Contractor is bound to the Agency by all terms and provisions of the Contract, including this arbitration provision.

## **6-13 CONTRACTOR'S WORK HOURS**

**6-13.1 Working Hours Limitations.** Except as otherwise specified, no work shall be performed by the Contractor at the Work site between the hours of 7:00 p.m. and 7:00 a.m. the following day, nor shall work be performed on Saturdays, Sundays or holidays listed in 6-7.2.1.

**6-13.2 Regular Work Schedule.** The Contractor shall furnish a work schedule with the Construction Schedule required by 6-1 and inform the Engineer at least two Days in advance of changing the schedule. The schedule shall include the times for starting and ending work on each day. Such starting and ending times shall not be more than 10 1/2 hours apart.

**6-13.3 Exceptions.** The limitations on working hours and days shall not apply to emergency work made necessary by unusual conditions where such work is necessary to protect the Work, to protect the property of others, to protect life, or to ensure the orderly flow of traffic.

The limitations of this section shall not apply where work at times other than allowed by 6-13.1 and 6-13.2 is necessary in order to make utility connections or is required by other provisions contained in these Specifications in order to perform the work in the manner specified. In these cases, the Contractor shall obtain prior written approval of the Engineer at least two Days in advance of performing the work.

## SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

### 7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES.

**7-1.1 General.** The Contractor shall furnish and maintain in good condition all equipment and facilities as required for the proper execution and inspection of the Work.

The Contractor shall provide and maintain enclosed toilets for the use of employees engaged in the Work. These accommodations shall be maintained in a neat and sanitary condition, and regularly pumped out.

**7-1.2 Temporary Utility Services.** The Contractor shall, at its own expense, make all arrangements necessary for the provision of temporary utility services necessary for its own use during performance of the Work.

The Contractor shall not draw water from any fire hydrant (except to extinguish a fire), without obtaining permission from the water utility owner.

**7-1.3 Crushing and Screening Operations.** Unless otherwise specified in the Special Provisions, the establishment and operation of portable screens and crushers will not be allowed on or adjacent to the Work site.

### 7-2 LABOR

**7-2.1 General.** The Contractor, its agents, and employees shall be bound by and comply with applicable provisions of the Labor Code and Federal, State, and local laws related to labor.

Any worker found by the Engineer to be incompetent, intemperate, troublesome, disorderly, or otherwise objectionable, or who fails to perform the Work properly and acceptably, shall be immediately removed from the Work site by the Contractor and shall not be reemployed in the performance on the Work.

**7-2.1.1 Special Qualifications.** Where the Engineer determines certain portions of the Work require experience, training, certification or other special qualifications that may not be possessed by the average journeyman, such portions of the Work will be specifically identified in the Special Provisions and the special qualifications identified.

When work requiring special qualifications is being performed, a person with such qualifications must be in immediate charge of the work. The person may be a lead journeyman, foreperson or trade superintendent. The general superintendent or a foreperson who is not specifically assigned to the area where the identified work is being performed will not be considered to be in immediate charge of the work.

Written certification of the required qualifications shall be furnished to the Engineer at least one week prior to the time work is commenced on the work requiring such qualifications. Such certification is subject to review and acceptance by the Engineer. If, during performance of work requiring special qualifications, the qualified person becomes temporarily or permanently unavailable to the Contractor, work shall not proceed until a qualified replacement has been accepted by the Engineer. The Engineer will promptly consider the certification of the replacement.

If identified work is performed without a person having the special qualifications in charge, the Engineer may, at its sole discretion, order such work removed and replaced at the Contractor's expense.

If, after certification is accepted, the Engineer finds that the certification was inaccurate, or work on the project indicates a lack of the knowledge and experience to supervise the work, the Engineer may order the work stopped until an acceptable replacement has been certified, accepted and is in charge.

**7-2.2 Prevailing Wages.** Pursuant to Section 1773.2 of the Labor Code, the current prevailing rate of per diem wages at the time of the Bid as determined by the Director of the Department of Industrial Relations (DIR) are on file at the office of the Engineer. The Contractor shall post a copy of these rates at the Work site. Pursuant to Section 1774 of the Labor Code, the Contractor and any Subcontractors shall pay not less than the specified prevailing rates of wages to workers employed on the Contract. If the Contract is Federally-funded, the Contractor and any Subcontractors shall not pay less than the higher of these rates or the rates determined by the United States Department of Labor. Pursuant to Section 1775 of the Labor Code, the Contractor and any Subcontractors, shall, as a penalty to the Agency, forfeit the prescribed amounts per calendar day, or portion thereof, for each worker paid less than the prevailing wage rates. The project is subject to the compliance monitoring and enforcement by the California Department of Industrial Relations (DIR). The contractor is responsible for posting job site notices as prescribed by regulation pursuant to Labor Code section 1771.4, subdivision (a)(2). The Contractor and each Subcontractor, if any, must be registered with the DIR pursuant to Labor Code section 1725.5 and section 1771.1. The Contractor and each Subcontractor, if any, must submit certified payrolls to the Labor Commissioner pursuant to Labor Code 1771.4.

**7-2.2.1 Apprentices.** Apprentices shall be employed on the Work in accordance with Labor Code Section 1777.5. The Contractor is responsible for compliance with Labor Code Section 1777.5 for all apprenticeable occupations whether employed directly or through subcontractors.

**7-2.2.2 Contractors' Duties Concerning Labor Code Compliance.** As required by Labor Code 1775(b)(1), Labor Code Sections 1771, 1775, 1776, 1777.5, 1813 and 1815 are required to be included in the contract between the Contractor and subcontractors. The Contractor agrees to comply with these sections and all remaining provisions of the Labor Code.

**7-2.3 Payroll Records.** Pursuant to Section 1776 of the Labor Code the Contractor and each Subcontractor, if any, shall keep, make available, and submit to the Engineer within ten (10) days of receipt of a written request,

certified payroll records. Pursuant to Labor Code section 1776, subsection (h), the Contractor and each Subcontractor, if any, shall, as a penalty to the Agency, forfeit the prescribed amount for each calendar day, or portion thereof, for each worker, the Contractor and each Subcontractor, if any, fails to comply with that subsection until strict compliance is effectuated. The Contractor and each Subcontractor, if any, waives any right to any notice or hearing on the forfeiture of such penalties pursuant to Labor Code sections 1726 or 1771.6. The contractor shall include the in its subcontracts as required to make this paragraph effective as to each Subcontractor. Upon written request, the Contractor shall withhold penalties forfeited by a Subcontractor pursuant to Labor Code section 1776, subsection (h), and this paragraph from payment due to such Subcontractor and remit such penalties withheld to the Agency.

**7-2.4 Hours of Labor.** Pursuant to Section 1810 of the Labor Code, 8 hours of labor shall constitute a legal day's work. Pursuant to Section 1813 of the Labor Code, the Contractor and any Subcontractors, shall, as a penalty to the Agency, forfeit the prescribed amount per calendar day for each worker required or permitted to work more than 8 hours in any 1 calendar day and 40 hours in any 1 calendar week without being compensated in accordance with Section 1815.

Pursuant to Section 1810 of the Labor Code, 8 hours of labor shall constitute a legal day's work. Pursuant to Section 1813 of the Labor Code, the Contractor and each Subcontractor, if any, shall, as a penalty to the Agency, forfeit the prescribed amount per calendar day for each worker required or permitted to work more than 8 hours in any 1 calendar day and 40 hours in any 1 calendar week without being compensated in accordance with Section 1815. Contractor and each Subcontractor, if any, waives any right to any notice or hearing on the forfeiture of such penalties pursuant to Labor Code sections 1726 and 1771.6. Contractor shall include terms in its subcontracts as required to make this paragraph effective as to each Subcontractor. Upon written request, Contractor shall withhold penalties forfeited by a Subcontractor pursuant to Labor Code section 1813 and this paragraph from payments due to such Subcontractor and remit such penalties withheld to the Agency

### **7-3 INDEPENDENCE OF CONTRACTOR, INDEMNIFICATION AND POLLUTION**

**7-3.1 Independence of Contractor.** It is understood and agreed that Contractor is at all times an independent contractor and that no relationship of employer-employee exists between the parties hereto. Contractor will not be entitled to any benefits payable to employees of County, including but not limited to overtime, retirement benefits, workers' compensation benefits, injury leave or other leave benefits. County is not required to make any tax or benefit deductions from the compensation payable to Contractor under the provisions of this Agreement. As an independent contractor, Contractor hereby holds County harmless from any and all claims that may be made against County based upon any contention by any third party that an employer-employee relationship exists by reason of the Agreement.

If, in the performance of this Agreement, any third persons are employed by Contractor, such persons will be entirely and exclusively under the direction, supervision and control of Contractor. All terms of employment, including hours, wages, working conditions, discipline, hiring and discharging or any other terms of employment or requirements of law, will be determined by Contractor. County will have no right or authority over such persons or the terms of such employment, except as provided in this Agreement.

**7-3.2 Indemnification and Hold Harmless Clause.** All activities arising out of or relating to the performance of the Work covered by this Contract shall be at the risk of Contractor. To the fullest extent permitted by law, Contractor shall defend (at Agency's request), indemnify and hold harmless Agency, and the County of Ventura if the County of Ventura is not the entity defined as Agency under this Contract, including all of their boards, agencies, departments, officers, employees, agents and volunteers (collectively, "Indemnitee"), against any and all claims, suits, actions, legal or administrative proceedings, judgments, debts, demands, damages, including injury or death to any person or persons, and damage to any property including loss of use resulting therefrom, incidental and consequential damages, liabilities, interest, costs, attorneys' fees and expenses of whatsoever kind of nature, whether arising before, during or after commencement or completion of this Contract, whether against Contractor and Indemnitee or which are in any manner, directly, indirectly, in whole or in part, arising from any act, omission, fault or negligence, whether active or passive, of Contractor, a Subcontractor or anyone directly or indirectly employed by them or anyone for whose acts they may be liable in connection with or incident to the Contract, even though the same may have resulted from the joint, concurring or contributory negligence, or from the passive negligence, of Indemnitee or any other person or persons, unless the same be caused by the sole negligence of Indemnitee, or except to the extent caused by the active negligence or willful misconduct of Indemnitee.

The Agency will notify the Contractor of the receipt of any third party claims.

**7-3.3 Contamination and Pollution.** Contractor, solely at its own cost and expense, will provide clean up of any premises, property or natural resources contaminated or polluted due to Contractor activities. Any fines, penalties, punitive or exemplary damages assigned due to contaminating or polluting activities of the Contractor will be borne entirely by the Contractor.

### **7-4 INSURANCE REQUIREMENTS**

Contractor, at its sole cost and expense, shall obtain and maintain in full force during the term of this Contract the following types of insurance:

#### **7-4.1 Workers' Compensation Insurance.**

**7-4.1.1 Coverage.** Workers' Compensation coverage, in full compliance with Labor Code 3700, for all employees of Contractor and Employer's Liability in the minimum amount of \$1,000,000. The Agency, the County of Ventura, its officers, employees or Consultants, will not be responsible for any claims in law or equity occasioned by failure of Contractor to comply with this paragraph.

**7-4.1.2 Certification.** Before execution of the Contract by Agency, Contractor shall file with the Engineer the following signed certification:

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

## 7-4.2 Commercial General Liability Insurance

### 7-4.2.1 Minimum Limits and Scope; Insurance Classes. "Occurrence" coverage in the minimum amount of:

<u>Coverage Class</u>	<u>Coverage</u>
L-A	\$ 1,000,000 combined single limit (CSL) bodily injury and property damage each occurrence and \$1,000,000 aggregate
L-B	\$ 1,000,000 CSL bodily injury and property damage each occurrence and \$2,000,000 aggregate
L-C	\$ 5,000,000 CSL bodily injury and property damage each occurrence and \$5,000,000 aggregate
L-D	\$ 10,000,000 CSL bodily injury and property damage each occurrence and \$10,000,000 aggregate

If no coverage class is specified in "Proposal", coverage class L-B shall apply.

If Contractor maintains higher limits than the minimums shown above, the Agency requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Agency.

Coverages shall include premises/operations; products/completed operations; independent contractors; underground, explosion and collapse hazards; personal and advertising injury; broad form property damage; and broad form blanket contractual.

**7-4.2.2 Coverage Exceptions.** On projects where no explosives will be used and no demolition is involved, the coverage for explosion may be omitted. On projects where no excavation is involved, the coverage for underground hazard may be omitted. The omission of said coverages is at Agency's option, and shall not abrogate Contractor's responsibilities for indemnification as set forth in these Specifications.

**7-4.2.3 Excess Liability Policies.** All Excess Liability policies, if used, shall be on an "umbrella" or following form of the primary layer of coverage.

### 7-4.3 Commercial Automobile Liability Insurance

Coverage in the minimum amount of \$1,000,000 CSL bodily injury and property damage, including automobile liability, any auto.

### 7-4.4 Property Insurance

Contractor shall arrange for its own "Course of Construction" insurance on the project to protect its interests, as Agency does not have this coverage.

Contractor is responsible for delivering to Agency Work completed in accordance with the Contract except as provided in 7-18 (Acts of God). Should the Work being constructed be damaged by fire or other causes during construction, it shall be replaced by Contractor in accordance with the requirements of the Plans and Specifications without additional expense to Agency.

### 7-4.5 Other Insurance Provisions.

**7-4.5.1 Insurance Company Qualifications.** All insurance required shall be issued by (a) an admitted company or admitted companies authorized to transact business in the State of California which have a BEST rating of B+ or higher and a Financial Size Category (FSC) of VII or larger or (b) a California approved Surplus Line carrier or carriers which have a BEST rating of A or higher and a Financial Size Category (FSC) of VII or larger.

Workers compensation insurance not meeting the above requirements but meeting all other requirements of the specifications, will be accepted.

**7-4.5.2 Primary Coverage.** All insurance required shall be primary coverage as respects Agency and any insurance or self-insurance maintained by Agency or the County of Ventura shall be in excess of Contractor's insurance coverage and shall not contribute to it.

**7-4.5.3 Aggregate Limits Exceeded.** Agency shall not be notified immediately if any aggregate insurance limit is exceeded. Contractor shall purchase additional coverage to meet requirements.

**7-4.5.4 Liability in Excess of Limits.** Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve Contractor for liability in excess of such coverage, nor shall it preclude Agency or the County of Ventura from taking such other actions as is available to it under any other provisions of this Contract or otherwise in law.

**7-4.5.5 Additional Insured Endorsements.** The Agency, the County of Ventura (if not defined as Agency) and all special Districts governed by the County of Ventura Board of Supervisors, and their officials, employees, and volunteers shall be named as Additional Insured as respects Work done by or on behalf of Contractor under the Contract on all policies required (except workers' compensation). With respect to Contractor's commercial general Liability insurance, Additional Insured coverage shall include both ongoing and completed operations.

**7-4.5.6 Waiver of Subrogation Rights.** Contractor agrees to waive all rights of subrogation against the Agency, the County of Ventura, including its boards, and all special Districts governed by the Board of Supervisors, for losses arising directly or indirectly from the activities or Work performed by Contractor under the Contract (applies only to Workers' Compensation and Commercial General Liability).

**7-4.5.7 Cancellation Notice Required.** In the case of policy cancellation, Agency shall be notified by the insurance company or companies as provided for in the policy. Contractor shall notify Agency of any and all policy cancellations within three working days of the cancellation.

**7-4.5.8 Documentation Required.** Prior to execution of the Contract by Agency, Contractor shall provide Agency with Certificates of Insurance for all required coverages (see Appendix A for example), all required endorsement(s) and a copy of its course of insurance policy.

It is the responsibility of Contractor to confirm that all terms and conditions of Section 7-4 Insurance Requirements are complied with by any and all subcontractors that Contractor may use in the completion of the Contract.

**7-5 PERMITS.** The Agency will obtain, at no cost to the Contractor, all encroachment and building permits necessary to perform Contract Work in streets, highways, railways or other rights of way, unless the necessity for such permit(s) is created by a method of operation chosen by the Contractor. The Contractor shall obtain and pay for all costs incurred for permits necessitated by its operations such as, but not limited to, those permits required for night Work, overload, blasting and demolition.

The Contractor shall pay all business taxes or license fees that are required for the Work.

**7-5.1 Highway and Railroad Permits.** The Engineer will obtain the basic State highway and railroad encroachment permits which will include checking of plans. However, the Contractor must also obtain permits from these agencies. Inspection fees charged by these agencies must be paid by the Contractor.

#### **7-5.2 Grading Ordinance**

**7-5.2.1 General.** All excavation, filling and grading operations in Ventura County are governed by the Ventura County Grading Ordinance or City Ordinances, except within the project right of way shown on the Plans.

**7-5.2.2 Permits Required.** Work outside the project right of way which involves excavation or filling of soils is subject to all requirements of the applicable grading ordinance. The requirements may include, but are not limited to, submitting of a grading plan prepared by a Civil Engineer, obtaining a grading permit, paying the permit fee, posting a grading bond, hiring professionals for engineering and testing services, compacting fills, constructing drainage facilities and providing erosion protection.

**7-5.2.3 Imported and Exported Material.** To insure that neither the Agency nor the Contractor is a party to aiding or abetting any property owner (who is ultimately responsible) to violate the applicable grading ordinance, no material shall be imported from or exported or wasted outside the project right of way until the Contractor has furnished the Engineer a copy of the grading permit covering such operation on land where material is to be deposited or excavated, unless exempt.

**7-5.2.4 Exemptions from Permit.** No grading permit is required of the Contractor for Work performed within the project right of way shown on the Plans or on borrow or disposal areas shown on the Plans or described in the Special Provisions and which are specifically designated as being exempt from such permit requirements.

#### **7-5.3 Building Permit.**

**7-5.3.1 Agency Furnished Permits.** Except as provided in **7-5.3.2**, Agency will submit the plans for the Work to Department of Building and Safety, and other building related permit issuing agencies, for plan check and make the corrections necessary for the issuance of building and related permits. Agency will Pay plan check and permit fees for the Work. The Contractor may be required to furnish information to the permit issuing agencies, as required for the issuance of permits, and sign the permit.

**7-5.3.2 Contractor Furnished Permits.** Components or systems, required by the Contract, may require the preparation of plans and calculations to obtain approvals or permits from state or local building, fire prevention, public health, safety, environmental protection and other agencies in addition to the basic permits arranged for by the Agency as provided in **7-5.3.1**. Contractor shall take all actions in a timely manner to obtain such approvals or permits so as not to delay completion of the Work beyond the time provided in **6-7**. Contractor shall include all costs and consider the time required to obtain approvals or permits in the Contract price bid.

#### **7-5.4 Coastal Zone Permits**

**7-5.4.1 Agency Furnished Permits.** Permits required for Work on the project within rights of way furnished by the Agency within the Coastal Zone will be obtained by the Agency.

**7-5.4.2 Contractor Furnished Permits.** Permits required for the Contractor's operations outside of rights of way furnished by the Agency must be obtained by the Contractor. Such permits are required for brush removal, grading, dredging, disposal of material and many other operations within the Coastal Zone.

**7-6 THE CONTRACTOR'S REPRESENTATIVE.** Before starting work, the Contractor shall designate in writing a representative who shall have complete authority to act for it. An alternative representative may be designated as well. The representative or alternate shall be present at the Work site whenever work is in progress or whenever actions of the elements necessitate its presence to take measures necessary to protect the Work, persons, or property. Any order or communication given to this representative shall be deemed delivered to the Contractor. A joint venture shall designate only one representative and alternate. In the absence of the Contractor or its representative, instructions or directions may be given by the Engineer to the superintendent or person in charge of the specific work to which the order applies. Such order shall be complied with promptly and referred to the Contractor or its representative.

In order to communicate with the Agency, the Contractor's representative, superintendent, or person in charge of specific work shall be able to speak, read, and write the English language.

**7-7 COOPERATION AND COLLATERAL WORK.** The Contractor shall be responsible for ascertaining the nature and extent of any simultaneous, collateral, and essential work by others. The Agency, its workers and contractors and others, shall have the right to operate within or adjacent to the Work site during the performance of such work.

The Agency, the Contractor, and each of such workers, contractors and others, shall coordinate their operations and cooperate to minimize interference.

The Contractor shall include in its Bid all costs involved as a result of coordinating its work with others. The Contractor will not be entitled to additional compensation from the Agency for damages resulting from such simultaneous, collateral, and essential work. If necessary to avoid or minimize such damage or delay, the Contractor shall redeploy its work force to other parts of the Work.

Should the Contractor be delayed by the Agency, and such delay could not have been reasonably foreseen or prevented by the Contractor, the Engineer will determine the extent of the delay, the effect on the Work, and any extension of time.

## **7-8 WORK SITE MAINTENANCE**

**7-8.1 General** Throughout all phases of construction, including suspension of the Work, and until acceptance per 6-8, the Contractor shall keep the Work site clean and free from rubbish and debris. Rubbish and debris collected on the Work site shall only be stored in roll-off, enclosed containers prior to disposal. Stockpiles of such will not be allowed.

When required by the Special Provisions, the Contractor shall provide a self-loading motorized street sweeper equipped with a functional water spray system. The sweeper shall clean all paved areas within the Work site and all paved haul routes at least once each working day.

The Contractor shall ensure there is no spillage along haul routes. Any such spillage shall be removed immediately and the area cleaned.

Should the Contractor fail to keep the Work site free from rubbish and debris, the Engineer may suspend the Work per 6-3 until the condition is corrected.

**7-8.2 Air Pollution Control** The Contractor shall not discharge smoke, dust, equipment exhaust, or any other air contaminants into the atmosphere in such quantity as will violate any Federal, State, or local regulations.

The Contractor shall also abate dust nuisance by cleaning, sweeping and spraying with water, or other means as necessary. The use of water shall conform to 7-8.6.

**7-8.3 Noise Control.** Noise generated from the Contractor's operations shall be controlled as specified in the Special Provisions.

### **7-8.4 Storage of Equipment and Materials.**

**7-8.4.1 General** Materials and equipment shall be removed from the Work site as soon as they are no longer necessary. Before inspection by the Engineer for acceptance, the Work site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory clean and neat appearance.

Excess excavated material shall be removed from the Work site immediately unless otherwise specified in the Special Provisions.

Forms and form lumber shall be removed from the Work site as soon as practicable after stripping.

**7-8.4.2 Storage in Public Streets.** Construction materials and equipment shall not be stored in streets, roads, or highways for more than 5 days after unloading unless otherwise specified in the Special Provisions or approved by the Engineer. All materials or equipment not installed or used in construction within 5 days after unloading shall be stored at a location approved by the Engineer.

Excavated material, except that which is to be used as backfill in the adjacent trench, shall not be stored in public streets unless otherwise specified in the Special Provisions or approved by the Engineer. Immediately after placing backfill, all excess material shall be removed from the Work site.

## **7-8.5 Sanitary Sewers.**

**7-8.5.1 General.** The flow of sewage shall not be interrupted. Should the Contractor disrupt the operation of existing sanitary sewer facilities, or should disruption be necessary for performance of the Work, the Contractor shall bypass the sewage flow around the Work. Sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system. Sewage shall not be permitted to flow in trenches nor be covered by backfill.

Whenever sewage bypass and pumping is required by the Plans or Specifications, or the Contractor so elects to perform, the Contractor shall submit per 2-5.3 a working drawing conforming to 7-8.5.2 detailing its proposed plan of sewage bypass and pumping.

**7-8.5.2 Sewage Bypass and Pumping Plan.** The plan shall indicate the locations and capacities of all pumps, sumps, suction and discharge lines. Equipment and piping shall be sized to handle the peak flow of the section of sewer line to be bypassed and pumped. Equipment and piping shall conform to 7-10, the Plans, and the Special Provisions. Bypass piping, when crossing areas subject to traffic loads, shall be constructed in trenches with adequate cover and otherwise protected from damage due to traffic. Lay-flat hose or aluminum piping with an adequate casing and/or traffic plates may be allowed if so approved by the Engineer. Bypass pump suction and

discharge lines that extend into manholes shall be rigid hose or hard pipe. Lay flat hose will not be allowed to extend into manholes. The Contractor shall provide a backup bypass pumping system in case of malfunction. The backup bypass system shall provide 100 percent standby capability, and be in place and ready for immediate use.

Each standby pump shall be a complete unit with its own suction and discharge piping. In addition to the backup system, the Contractor shall furnish and operate vacuum trucks when required by the Plans or Special Provisions.

**7-8.5.3 Spill Prevention and Emergency Response Plan.** The Contractor shall prepare and submit per 2-5.3 a spill prevention and emergency response plan. The plan shall address implementation of measures to prevent sewage spills, procedures for spill control and containment, notifications, emergency response, cleanup, and spill and damage reporting.

The plan shall account for all storm drain systems and water courses within the vicinity of the Work which could be affected by a sewage spill. Catch basins that could receive spilled sewage shall be identified Unless otherwise specified in the Special Provisions, these catch basins shall be sealed prior to operating the bypass and pumping system. The Contractor shall remove all material used to seal the catch basins when the bypass and pumping system operations are complete.

The Contractor shall be fully responsible for containing any sewage spillage, preventing any sewage from reaching a watercourse, recovery and legal disposal of any spilled sewage, any fines or penalties associated with the sewage spill imposed upon by the Agency and/or the Contractor by jurisdictional regulatory agencies, and any other expenses or liabilities related to the sewage spill.

**7-8.6 Water Pollution Control** The Contractor shall prevent, control, and abate discharges of pollutants from the construction site in order to protect the storm drain system, which includes pipes, channels, streams, waterways, and other bodies of water, by the construction, installation or performance of water pollution control measures as shown on the Stormwater Pollution Control Plan (SWPCP) or Stormwater Pollution Prevention Plan (SWPPP) depending on the land area affected by the construction activity. The Contractor shall ensure compliance with the current State NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity (General Construction Permit), NPDES No. CAS000002 and current Ventura County NPDES Municipal Separate Storm Sewer System (MS4) Permit No. CAS004002.

## 7-8.6.1 Compliance with NPDES General Construction Permit

### 7-8.6.1.1 Construction Sites

If the Work involves construction activity that results in soil disturbance of one acre or more of total land area, or results in soil disturbances of less than one acre but is a part of a work area larger than one acre, the Contractor shall comply with the requirements of the General Construction Permit NPDES No. CAS000002. Construction activity includes clearing, grading, excavation, stockpiling, and reconstruction of existing facilities involving removal and replacement. Construction activity does not include routine maintenance such as, maintenance of original line and grade, hydraulic capacity, or original purpose of the facility.

The Contractor shall comply with requirements of the General Construction Permit (NPDES No. CAS000002), obtained by the Agency, including a site-specific Storm Water Pollution Prevention Plan (SWPPP) for the Work to be developed by Qualified SWPPP Developer (QSD) and implemented by the Qualified SWPPP Practitioner (QSP). After July 1, 2010, the Agency will electronically file all required Permit Registration Documents (PRDs) through the State Water Board's Stormwater Multi-Application and Report Tracking System (SMARTS) website, as required prior to the commencement of construction activity. PRDs consist of the Notice of Intent (NOI), Risk Assessment, Post-Construction Calculations, a Site Map, the SWPPP, a signed certification statement by the Legally Responsible Party (LRP), and the first annual fee. For the Permit application, the Contractor shall submit to Project Manager the following:

- The completed site-specific Risk Assessment
- Post-construction calculations if applicable for the project, and
- Site-specific SWPPP developed in accordance with applicable Permits.

**7-8.6.1.2 Linear Utility Projects;** Contractor shall comply with the requirements of the General Construction Permit NPDES No. CAS000002 for Linear Underground/Overhead projects (LUPs) one acre or greater.

### 7-8.6.2 Compliance with NPDES MS4 Permit

**7-8.6.2.1 Construction Sites Less Than One Acre** The Contractor shall ensure implementation of an effective combination of erosion and sediment control Best Management Practices (BMPs) listed in **Table 6** of the Ventura County NPDES MS4 Permit. The Contractor shall develop and implement a Storm Water Pollution Control Plan (SWPCP).

**7-8.6.2.2 Construction Sites One Acre but Less Than 5 Acres** The Contractor shall ensure implementation of an effective combination of appropriate erosion and sediment control BMPs from **Table 7** (BMPs at Construction sites 1 acre or greater but less than 5 acres) of the Ventura County NPDES MS4 Permit in addition to the ones identified in **Table 6** (BMPs at Construction sites less than 1 acre) to prevent erosion and sediment loss, and the discharge of construction wastes. For all construction sites one acre or greater, the Contractor shall submit the SWPPP to the Agency for review and certification as the Local SWPPP.

**7-8.6.2.3 Construction Sites 5 Acres and Greater** The Contractor shall ensure implementation of an effective combination of the following BMPs in **Tables 8** (BMPs at Construction sites 5 acres or greater) in addition to the ones identified in **Table 6** (BMPs at Construction sites less than 1 acre) and **Table 7** (BMPs at Construction sites 1 acre or greater but less than 5 acres) at all construction sites 5 acres and greater to prevent erosion and sediment loss, and the discharge of construction wastes. For all construction sites one acre or greater, the Contractor shall submit the SWPPP to the Agency for review and certification as the Local SWPPP.

### 7-8.6.2.4 Enhanced Construction BMP Implementation

Construction sites located on hillsides, adjacent or directly discharging to CWA 303(d) listed waters for siltation or sediment, and directly adjacent to Environmentally Sensitive Areas are termed "high risk sites." Contractor shall implement enhanced practices that preclude impacts to water quality posed by the high risk sites.

Contractor shall ensure that high risk sites are inspected by the Qualified SWPPP Developer, Qualified SWPPP Practitioner, or Certified Professionals in Erosion and Sediment Control (CPESC) at the time of BMP installation, at least weekly during the wet season, and at least once each 24 hour period during a storm event that generates runoff from the site, to identify BMPs that need maintenance to operate effectively, that have failed or could fail to operate as intended.

During the wet season, the area of disturbance shall be limited to the area that can be controlled with an effective combination of erosion and sediment control BMPs. Enhanced sediment controls should be used in combination with erosion controls and should target portions of the site that cannot be effectively controlled by standard erosion controls described above. Effective sediment and erosion control BMPs proposed by the Contractor shall include the BMPs listed in Table 9 (Enhanced Construction BMP Implementation) of the NPDES MS4 Permit. The Contractor shall implement the BMPs listed in Table 9 unless shown unnecessary. Also, the Contractor shall retain records of the inspection and a determination and rationale of the BMPs selected to control runoff.

### **7-8.6.3 Plan.**

**7-8.6.3.1** The SWPCP, required for construction projects less than one acre, shall be prepared in accordance with the requirements of current Ventura County NPDES MS4 Permit No. CAS004002 and County Ordinance No. 4142.

**7-8.6.3.2** The SWPPP, required for construction projects one acre or greater, shall be prepared in accordance with the requirements of the state's General Construction Permit NPDES Permit CAS000002, Ventura Countywide Stormwater Quality Management Program, NPDES MS4 Permit No. CAS004002, and County Ordinance No. 4142.

**7-8.6.3.3** The SWPCP/SWPPP shall identify potential pollutant sources on the construction site that may affect the quality of discharges, whether non-stormwater or stormwater, from the site and design the use and placement of water pollution control measures, BMPs, to effectively prohibit the entry of pollutants from the site into the storm drain system during construction. At a minimum, and depending on the size of the project area, the SWPCP/SWPPP will include all appropriate minimum BMPs as required by the Ventura Countywide Stormwater Quality Management Program, NPDES MS4 Permit No. CAS004002 (Tables 6 through 9). The SWPCP/SWPPP must utilize the measures recommended in the California Stormwater Quality Association (CASQA) Stormwater BMPs Handbook for Construction (January 2003 version until July 1, 2010 and 2009 version after July 1, 2010). Starting July 1, 2010 SWPPP shall be prepared by QSD as defined in the NPDES Permit CAS000002. The Contractor shall complete, sign and submit the SWPCP/SWPPP for review and final approval by the Project Engineer, prior to issuance of the Notice to Proceed as provided in 6-7.4.

**7-8.6.3.4** For all construction projects one acre and greater, the Contractor shall submit the SWPPP to the Agency for review and certification as Local SWPPP in accordance with NPDES MS4 Permit No. CAS004002 prior to the Notice to Proceed as provided in 6-7.4.

**7-8.6.4 Measures.** All water pollution control measures shall conform to the requirements of the submitted SWPCP/SWPPP. If circumstances during the course of construction require changes to the original SWPCP/SWPPP, a revised SWPCP/SWPPP shall be promptly submitted to the Project Manager in each instance. The SWPPP shall be amended or revised by QSD. A copy of the current SWPCP/SWPPP including revisions and amendments shall be kept at the site to ensure that field personnel has access to the current document at all times. If measures being taken are inadequate to control water pollution effectively, the Project Manager may direct the Contractor to revise the operations and no further work shall be performed until adequate water pollution control measures are implemented. Effective September 2, 2011, implementation of the SWPPP shall be overseen by the Contractor's QSP as defined in the General Construction Permit NPDES No. CAS000002. All work installed by the Contractor in connection with the SWPCP/SWPPP but not specified to become a permanent part of the Work shall be removed and the site restored in so far as practical to its original condition prior to completion of the Work.

**7-8.6.4.1 Post-Construction Standards;** Contractor shall ensure that applicable post-construction standards are implemented to meet applicable project requirements of the Ventura County NPDES MS4 Permit and General Construction Permit NPDES No. CAS000002 (effective September 2, 2012).

**7-8.6.4.2 Active Treatment Systems;** Contractor shall comply with requirements of the General Construction Permit NPDES No. CAS000002 for active treatment systems as applicable.

### **7-8.6.5 Monitoring and Reporting**

**7-8.6.5.1 Monitoring;** In accordance with the General Construction Permit NPDES No. CAS000002, the Contractor shall develop and implement monitoring program for Risk Level 2 and 3 sites. In addition at Risk Level 3 sites, contractor shall perform receiving water monitoring to meet Permit requirements.

**7-8.6.5.2 Reporting;** the Contractor shall ensure that all submittals and reports are prepared and submitted to the RWQCB in accordance with the applicable Permits. At minimum the reports will include Annual Report (for applicable projects due September 1<sup>st</sup>), Rain Event Action Plan (due 48 hrs prior to the rain event for the applicable projects), Numeric Action Levels (NAL) Exceedance Report (as required), Numeric Effluent Limitations (NELs) Violation Report (within 24 hours after NEL exceedance is identified). Contractor shall submit required reports to the Project Manager for review and approval prior to submittal to the RWQCB.

**7-8.6.6 Dewatering Activities.** All dewatering activities shall be performed in accordance with applicable regulatory requirements issued by the Los Angeles Regional Water Quality Control Board, including specific requirements contained in the Waste Discharge Requirements (WDR) when issued for the Work.

**7-8.6.7 Payment.** The Contract lump sum price for water pollution control shall include full compensation for furnishing all labor, materials, tools, equipment, services and incidentals and for doing all work involved in water pollution control as specified herein. Payment for water pollution control will be made as the Work proceeds, and is in compliance with the approved Water Pollution Control Plan, on the following basis.

Partial payment estimate (excluding mobilization & water pollution control payments) as a percentage of the original Contract price (excluding the mobilization & water pollution control Bid items).		Cumulative amount of water pollution control pay item earned is the lesser of the amounts as computed by these two columns.	
Equal to or greater than	Less than	Percentage of water pollution control pay item	Percentage of the original Contract total.
5	10	10	1
10	20	20	2
20	50	50	3
50	Completion of Work	75	5
Completion of Work		100	

Where no Bid item is provided for water pollution control, payment for water pollution control shall be considered to be included in the other Bid items.

**7-8.7 Drainage Control.** The Contractor shall maintain drainage within and through the Work areas. Earth dams will not be permitted in paved areas. Temporary dams of sandbags, asphaltic concrete or other acceptable material will be permitted when necessary to protect the Work, provided their use does not create a hazard or nuisance to the public. Such dams shall be removed from the site as soon as their use is no longer necessary.

**7-8.8 Final Cleaning.** At the completion of the Work, the Contractor shall remove all waste materials and rubbish from and about the project, as well as all tools, construction equipment, temporary facilities, machinery, and surplus materials.

At completion of construction and just prior to final inspection, the Contractor shall thoroughly clean the interior and exterior of the buildings, including hardware, floors, roofs, sills, ledges, glass, or other surfaces where debris, plaster, paint, spots, and dirt or dust may have collected. All glass shall be washed clean and polished. Remove all grease, stains, labels, fingerprints, and other foreign materials from interior and exterior surfaces. Repair, patch, and touch up marred surfaces to match adjacent finishes.

The Contractor shall use only experienced workmen or professional cleaners for final cleaning. It shall use only cleaning materials recommended by the manufacturer of the surface to be cleaned, and use cleaning materials only on surfaces recommended by the cleaning material manufacturer.

It shall broom-clean all paved surfaces and rake-clean other surfaces of grounds.

The Contractor shall replace air conditioning filters if units were operated during construction, and clean all ducts, blowers, and coils if air conditioning units were operated without filters during construction.

After cleaning, the Contractor shall maintain the building in a clean condition until it is accepted by the Agency.

**7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS.** The Contractor shall be responsible for the protection of public and private property adjacent to the Work and shall exercise due caution to avoid damage to such property.

The Contractor shall repair or replace all existing improvements within the right-of-way which are not designated for removal (e.g., curbs, sidewalks, driveways, fences, walls, signs, utility installations, pavement, structures, etc.) which are damaged or removed as a result of its operations. When a portion of a sprinkler system within the right-of-way must be removed, the remaining lines shall be capped. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

Maintenance of street and traffic signal systems that are damaged, temporarily removed or relocated shall be done in conformance with 307-1.5.

Trees, lawns, and shrubbery that are not designated to be removed shall be protected from damage or injury. If damaged or removed because of the Contractor's operations, they shall be restored or replaced in as nearly the original condition and location as is reasonably possible. Lawns shall be reseeded and covered with suitable mulch.

The Contractor shall give reasonable notice to occupants or owners of adjacent property to permit them to salvage or relocate plants, trees, fences, sprinklers and other improvements which are designated for removal and would be destroyed because of the Work.

All costs to the Contractor for protecting, removing, and restoring existing improvements shall be absorbed in its bid.

In existing buildings, all surfaces, equipment, furniture and other property shall be protected from loss or damage by or as result of the Contractor's operations. The Contractor shall replace damaged property or shall repair and restore it to its previous condition. Patching, painting, replacement of wall, ceiling and floor covering and similar Work shall be done in such a manner that the repaired Work will not be readily noticeable.

## **7-10 PUBLIC CONVENIENCE AND SAFETY**

### **7-10.1 Access.**

**7-10.1.1 General.** The Contractor's operations shall cause no unnecessary inconvenience to the public or businesses in the vicinity of the Work. The Contractor shall have no greater length or quantity of Work under construction than can be properly prosecuted with a minimum of inconvenience to the public and other contractors engaged in adjacent or related work.

The Contractor shall provide continuous and unobstructed access to the adjacent properties unless otherwise specified in the Special Provisions or approved by Engineer. Work requiring traffic lane closures shall only be performed between the hours specified in the Special Provisions or shown on the TCP. Traffic shall be permitted to pass through the Work site, unless otherwise specified in the Special Provisions or shown on the TCP.

**7-10.1.1.1 Vehicular Access.** Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access. If backfill has been completed to the extent that safe access may be provided and the street is opened to local traffic, the Contractor shall immediately clear the street and driveways and provide and maintain access.

**7-10.1.1.2 Pedestrian Access.** Safe, adequate, and ADA compliant pedestrian access shall be maintained unless otherwise approved by the Engineer. 7-10.2 Work Area Traffic Control.

### **7-10.2 Traffic Control**

**7-10.2.1 General.** Work area traffic control shall conform to the California MUTCD, WATCH, or as specified in the Special Provisions. The total length of the traffic control zone shall include a buffer space, advance signing, striping transitions in advance of the Work site, existing striping, signing, and raised medians.

#### **7-10.2.2 Traffic Control Plan.**

**7-10.2.2.1 General.** If so specified in the Special Provisions or on the permit, the Contractor shall submit a TCP in accordance with 2-5.3. The sheets of the TCP shall display the title, phase identification, name of the firm preparing the TCP, name and stamp of the Registered Traffic or Civil Engineer, approval block for each jurisdictional agency, north arrow, sheet number, and number of sheets comprising the TCP. General notes and symbol definitions shall be included when required. Adequate dimensioning shall be provided to allow for proper field installation. The TCP shall be drawn to a 1 inch = 40 feet scale on common size sheets, either 8-1/2 inches x 11 inches, 8-1/2 inches x 14 inches, 11 inches x 17 inches, or 2-foot x 3-foot plan sheets as dictated by the length of the Work.

The requirements in the Special Provisions shall govern the design of the proposed TCP.

**7-10.2.2.2 Payment.** Payment for preparation of the TCP shall be included in the appropriate lump sum Bid items. If no Bid items have been provided, payment shall be included in the various Bid items unless otherwise specified in the Special Provisions.

**7-10.3 Haul Routes.** Unless otherwise specified in the Special Provisions, the haul route(s) shall be determined by the Contractor.

#### **7-10.4 Safety.**

##### **7-10.4.1 Work Site Safety.**

**7-10.4.1.1 General.** The Contractor shall provide safety measures as necessary to protect the public and workers within, or in the vicinity of, the Work site. The Contractor shall ensure that its operations will not create safety hazards. The Contractor shall provide safety equipment, material, and assistance to Agency personnel so that they may properly inspect all phases of the Work. When asbestos is being removed, the requirements of the CCR Title 8, Div. 1, Chapter 4, Subchapter 4 and Subchapter 7 shall be implemented.

**7-10.4.1.2 Work Site Safety Official.** The Contractor shall designate in writing a "Project Safety Official" who shall be at the Work site at all times, and who shall be thoroughly familiar with the Contractor's Injury and Illness Prevention Program (IIPP) and Code of Safe Practices (CSP). The Project Safety Official shall be available at all times to abate any potential safety hazards and shall have the authority and responsibility to shut down an unsafe operation, if necessary.

##### **7-10.4.2 Safety Orders.**

**7-10.4.2.1 General.** The Contractor shall have at the Work site, copies or suitable extracts of Construction Safety Orders, Tunnel Safety Orders, and General Industry Safety Orders issued by the State Division of Industrial Safety. Prior to beginning any excavation 5 feet in depth or greater, the Contractor shall submit to the Engineer, the name of the "Competent Person" as defined in CCR, Title 8, Section 1504, in accordance with 2-5.3. The "Competent Person" shall be present at the Work site as required by Cal-OSHA.

**7-10.4.2.2 Shoring Plan.** Before excavating any trench 5 feet (105m) or more in depth, the Contractor shall submit in accordance with 2-5.3 a detailed working drawing (shoring plan) showing the design of the shoring, bracing, sloping, or other provisions used for the workers' protection. If the shoring plan varies from the shoring system standards, the shoring plan shall be prepared by a registered Structural or Civil Engineer. The shoring plan shall accommodate existing underground utilities. No excavation shall start until the Engineer has accepted the shoring plan and the Contractor has obtained a permit from the State Division of Industrial Safety. A copy of the permit shall be submitted to the Engineer in accordance with 2-5.3. If the Contractor fails to submit a shoring plan or fails to comply with an accepted shoring plan, the Contractor shall suspend work at the affected location(s) when directed to do so by the Engineer. Such a directive shall not be the basis of a claim for Extra Work and the Contractor shall not receive additional compensation or Contract time due to the suspension.

**7-10.4.2.3 Payment.** Payment for shoring shall be included in the Bid item provided therefor. Payment for compliance with the provisions of the safety orders and all other laws, ordinances, and regulations shall be included in the various Bid items.

**7-10.4.3 Use of Explosives.** Explosives may be used only when authorized in writing by the Engineer, or as otherwise specified in the Special Provisions.

Explosives shall be handled, used, and stored in accordance with all applicable regulations.

Prior to blasting, the Contractor shall comply with the following requirements:

- a) The jurisdictional law enforcement agency shall be notified 24 hours in advance of blasting.
- b) The jurisdictional fire department shall be notified 24 hours in advance of blasting.
- c) Blasting activities and schedule milestones shall be included in the Contractor's construction schedule per 6-1.

For a Private Contract, specific permission shall be obtained from the Agency in writing, prior to any blasting operations in addition to the above requirements.

The Engineer's approval of the use of explosives shall not relieve the Contractor from liability for claims caused by blasting operations.

**7-10.4.4 Hazardous Substances.** An MSDS as described in CCR, Title 8, Section 5194, shall be maintained at the Work site for all hazardous material used by the Contractor. Material usage shall be accomplished with strict adherence to California Division of Industrial Safety requirements and all manufacturer warnings and application instructions listed on the MSDS and on the product container label. The Contractor shall notify the Engineer if a specified product cannot be used under safe conditions. 7-10.4.5 Confined Spaces. 7-10.4.5.1 Confined Space Entry Program (CSEP). The Contractor shall be responsible for implementing, administering and maintaining a CSEP in accordance with CCR, Title 8, Sections 5156, 5157 and 5158.

Prior to the start of the Work, the Contractor shall prepare and submit a CSEP in accordance with 2-5.3. The CSEP shall address all potential physical and environmental hazards and contain procedures for safe entry into confined spaces such as the following:

- a) Training of personnel
- b) Purging and cleaning the space of materials and residue
- c) Potential isolation and control of energy and material inflow
- d) Controlled access to the space
- e) Atmospheric testing of the space
- f) Ventilation of the space
- g) Special hazards consideration
- h) Personal protective equipment
- i) Rescue plan provisions

The submittal shall include the names of the Contractor's personnel, including each Subcontractor's personnel, assigned to the Work that will have CSEP responsibilities, their CSEP training, and their specific assignment and responsibility in carrying out the CSEP.

#### **7-10.4.5 Confined Spaces.**

**7-10.4.5.1 Confined Space Entry Program (CSEP).** The Contractor shall be responsible for implementing, administering and maintaining a CSEP in accordance with CCR, Title 8, Sections 5156, 5157 and 5158.

Prior to the start of the Work, the Contractor shall prepare and submit a CSEP in accordance with 2-5.3. The CSEP shall address all potential physical and environmental hazards and contain procedures for safe entry into confined spaces such as the following:

- a) Training of personnel.
- b) Purging and cleaning the space of materials and residue.
- c) Potential isolation and control of energy and material inflow.
- d) Controlled access to the space.
- e) Atmospheric testing of the space.
- f) Ventilation of the space.
- g) Special hazards consideration.
- h) Personal protective equipment.
- i) Rescue plan provisions.

The submittal shall include the names of the Contractor's personnel, including each Subcontractor's personnel, assigned to the Work that will have CSEP responsibilities, their CSEP training, and their specific assignment and responsibility in carrying out the CSEP.

**7-10.4.5.2 Permit-Required Confined Spaces.** Entry into permit-required confined spaces as defined in CCR, Title 8, Section 5157 may be required as a part of the Work. Manholes, tanks, vaults, pipelines, excavations, or other enclosed or partially enclosed spaces shall be considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise. The Contractor shall implement a permit-required CSEP prior to performing any work in a permit-required confined space. A copy of the permit shall be available at all times for review by the Contractor and the Engineer at the Work site.

**7-10.4.5.3 Payment.** Payment for the CSEP shall be included in the Bid items for which the CSEP is required.

#### **7-10.5 Security and Protective Devices.**

**7-10.5.1 General.** Security and protective devices shall consist of fencing, steel plates, or other devices as specified in the Special Provisions to protect open excavations

**7-10.5.2 Security Fencing.** The Contractor shall completely fence open excavations. Security fencing shall conform to 304-3.5. Security fencing shall remain in place unless workers are present and construction operations are in progress during which time the Contractor shall provide equivalent security..

**7-10.5.3 Steel Plate Covers.** The Contractor shall provide steel plate covers as necessary to protect from accidental entry into openings, trenches, and excavations.

**7-11 PATENT FEES OR ROYALTIES.** The Contractor shall absorb in its Bid, the patent fees or royalties on any patented article or process which may be furnished or used in the Work. The Contractor shall indemnify and hold the Agency harmless from any legal action that may be brought for infringement of patents.

**7-12 ADVERTISING.** The names of contractors, subcontractors, architects, or engineers, with their addresses and the designation of their particular specialties, may be displayed on removable signs. The size and location of such signs shall be subject to the Engineer's approval.

Commercial advertising matter shall not be attached or painted on the surfaces of buildings, fences, canopies, or barricades.

**7-13 LAWS TO BE OBSERVED.** The Contractor shall keep fully informed of State and National laws and County and Municipal ordinances and regulations which in any manner affect those employed in the Work or the materials used in the Work or in any way affect the conduct of the Work. It shall at all times observe and comply with all such laws, ordinances and regulations.

**7-13.1 Mined Materials.** Mined material from California surface mines, used on the Work, shall be from a mine identified in the list published by the California Department of Conservation (referred to as 3098 List), as required by Public Contract Code 20676. This list is available on the Internet at [www.conservation.ca.gov/OMR/ab\\_3098\\_list/index.htm](http://www.conservation.ca.gov/OMR/ab_3098_list/index.htm).

**7-14 ANTITRUST CLAIMS.** Section 7103.5 of the Public Contract Code provides:

"In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgement by the parties."

**7-15 RECYCLABLE CONSTRUCTION & DEMOLITION WASTES.** Ventura County Ordinance Code Section, 4421 et seq, requires that if any recyclable solid wastes or marketable reusable materials will be generated on the site of the Work within the unincorporated areas of Ventura County, the Contractor shall prepare a Construction & Demolition Debris Waste Diversion Plan and submit it to the Ventura County Public Works Agency, Water & Sanitation Department - Integrated Waste Management Division (IWMD). The Contractor shall prepare and file Construction & Demolition Debris Waste Diversion Reporting Forms as required by the IWMD.

For projects within the unincorporated areas of Ventura County, the Contractor shall submit an IWMD Form B-Recycling Plan approved by IWMD prior to issuance of the Notice to Proceed as provided in 6-7.4.

For projects within the unincorporated areas of Ventura County, the Contractor shall submit an IWMD Form C-Reporting Form approved by IWMD prior to the Engineer preparing the final estimate as provided in 9-3.2.

If the site of the Work is within an incorporated city, the Contractor shall comply with all the recycling, solid waste diversion, and hauling requirements of that incorporated city.

**7-16 BLANK**

**7-17 LOSS OR DAMAGE TO THE WORK.** The Contractor is responsible for delivering to the Agency Work completed in accordance with the Contract except as provided in 7-18. Should the Work being constructed be damaged by fire or other causes before Acceptance by the Agency, it shall be replaced in accordance with the requirements of the Plans and Specifications without additional expense to the Agency. The Agency does not carry "Course of Construction" insurance on the Work. Contractor should arrange for its own insurance to protect its interests.

**7-18 ACTS OF GOD.** As provided in Section 7105 of the California Public Contract Code, the Contractor shall not be responsible for the cost of repairing or restoring damaged portions of the Work determined to have been proximately caused by an act of God in excess of 5 percent of the contracted amount, provided that the Work damaged was built in accordance with accepted and applicable building standards and the Specifications and Drawings. The Contractor shall obtain insurance to indemnify the Agency for any damage to the Work caused by an act of God if the premium of said insurance coverage is called for as a separate bid item in the bidding schedule for the Work. For purposes of this section, the term "acts of God" shall include only the following occurrences or conditions and effects: earthquakes in excess of a magnitude of 3.5 on the Richter Scale, and tidal waves.

## **SECTION 8 - FACILITIES FOR AGENCY PERSONNEL**

**8-1 GENERAL.** A field office shall be provided when required by the Plans or Special Provisions. The field office shall be at a suitable location approved by the Engineer.

A field office shall be a weather-tight building of suitable proportions with 16 m<sup>2</sup> (120 sq. ft.) of floor area, at least one door, and a window area of 2 m<sup>2</sup> (22 Sq. Ft.). A field office may be a building or a separate room in a building the Contractor may be required to provide or that it may desire to provide for its own use. In either case, the room shall have a separate exterior door. All doors shall be provided with hasps for padlocks.

The office shall be convenient to the Work. It shall be adequately heated, ventilated, electrically lighted, and provided with telephone service, all at the expense of the Contractor or plant owner. Offices are for the exclusive use of Agency personnel, unless otherwise provided herein.

Field offices at the worksite shall be removed upon completion of the Work.

All costs incurred in furnishing, maintaining, servicing, and removing a field office required at the Work site shall be included in the price bid for such item. If such item is required by the Plans or Specifications and no bid item is provided in the Proposal, the costs shall be absorbed in the other items for which bids are entered. Buildings and equipment furnished by the Contractor at the Work site under the provisions of this section are the property of the Contractor.

The first progress payment will not be approved until all facilities are in place and fully comply with the Specifications.

**8-2 EQUIPMENT FOR FIELD OFFICES.** Unless otherwise specified, a field office shall be equipped with:

- Plan table, 0.75 m x 1.5 m (2 1/2 ft. x 5 ft.) or larger
- Plan rack, capacity to hold two sets of project Plans plus all shop drawings
- Desk and chair
- Two lockers with hasps for padlocks

## SECTION 9 - MEASUREMENT AND PAYMENT

### 9-1 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK

**9-1.1 General.** Unless otherwise specified, quantities of work shall be determined from measurements or dimensions in horizontal planes. However, linear quantities of pipe, piling, fencing, and timber shall be considered as being the true length measured along longitudinal axis.

Unless otherwise provided in Specifications, volumetric quantities shall be the product of the mean area of vertical or horizontal sections and the intervening horizontal or vertical dimension. The planimeter shall be considered an instrument of precision adapted to measurement of all areas.

**9-1.2 Methods of Measurement.** Materials and items of Work which are to be paid for on the basis of measurement shall be measured in accordance with the methods stipulated in the particular sections involved.

**9-1.3 Certified Weights.** When payment is to be made on the basis of weight, the weighing shall be done on certified platform scales or, when approved by the Engineer, on a completely automated weighing and recording system. The Contractor shall furnish the Engineer with duplicate licensed weighmaster's certificates showing actual net weights. The Agency will accept the certificate as evidence of weights delivered.

**9-1.4 Units of Measurement.** Measurements shall be in accordance with 1-4.1 and 1-4.2. A metric ton or "tonne" is equal to 1000 kilograms and the unit of liquid measure is a Liter (in U.S. Standard Measures, a pound is an avoirdupois pound; a ton is 2000 pounds avoirdupois; and the unit of liquid measure is a gallon).

**9-2 LUMP SUM BID ITEMS.** Items for which quantities are indicated as "Lump Sum", "L.S." or "Job" shall be paid for at the price indicated in the Proposal. Such payment shall be full compensation for the items of Work and all Work appurtenant thereto.

When required by the Specifications or requested by the Engineer, the Contractor shall submit to the Engineer within 15 Days after award of Contract, a detailed schedule in triplicate, to be used only as a basis for determining progress payments on a lump sum contract or any designated lump sum bid item. This schedule should equal in total the lump sum bid and shall be in such form and sufficiently detailed as to satisfy the Engineer that it correctly represents a reasonable apportionment of the lump sum. If Mobilization or Water Pollution Control are included in the detailed schedule, those items will be paid for as provided in 9-3.4.2 and 7-8.6.4, receptively.

### 9-3 PAYMENT

**9-3.1 General.** The quantities listed in the Bid schedule will not govern final payment unless identified by Agency on the Proposal as [F]. The symbol "[F]" indicates that the quantities shown on the Proposal form are the final pay quantities. Payment to the Contractor (except those items identified as [F]) will be made only for the actual quantities of Contract items constructed in accordance with the Plans and Specifications. Upon completion of construction, if the actual quantities show either an increase or decrease from the quantities given in the Bid schedule, the Contract Unit Prices will prevail subject to the provisions of 3-2.2.1. Payment for those items identified as [F] will be based on the quantities shown on the Proposal unless changed as provided in 3-2.2.1.

The unit and lump sum prices to be paid shall be full compensation for the items of work and all appurtenant work, including furnishing all materials, labor, equipment, tools and incidentals.

Payment for items shown on the Plans or required by the Specifications, for which no pay item is provided, shall be considered included in the prices named for the other items shown on the Proposal.

Payment will not be made for materials wasted or disposed of in a manner not called for under the Contract. This includes rejected material not unloaded from vehicles, material rejected after it has been placed and material placed outside of the Plan lines. No compensation will be allowed for disposing of rejected or excess material.

Whenever any portion of the Work is performed by the Agency at the Contractor's request, the cost thereof shall be charged against the Contractor, and may be deducted from any amount due or becoming due from the Agency.

Whenever immediate action is required to prevent injury, death, or property damage, and precautions which are the Contractor's responsibility have not been taken and are not reasonably expected to be taken, the Agency may, after reasonable attempt to notify the Contractor, cause such precautions to be taken and shall charge the cost thereof against the Contractor, or may deduct such cost from any amount due or becoming due from the Agency. Agency action or inaction under such circumstances shall not be construed as relieving the Contractor or its Surety from liability.

### **9-3.1 General. (Continued)**

Payment shall not relieve the Contractor from its obligations under the Contract; nor shall such payment be construed to be Acceptance of any of the Work. Payment shall not be construed as the transfer of ownership of any equipment or materials to the Agency. Responsibility of ownership shall remain with the Contractor who shall be obligated to store, protect, repair, replace, rebuild, or otherwise restore any fully or partially completed work or structure for which payment has been made; or replace any materials or equipment required to be provided under the Contract which may be damaged, lost, stolen or otherwise degraded in any way prior to completion of the Work under the Contract, except as provided in 6-10.

Warranty periods shall not be affected by any payment but shall commence on the date equipment or material is placed into service at the written direction of the Engineer. In the event such items are not placed into service prior to partial or final completion of the Work, the warranty periods will commence on the date set forth as the date of field completion in the Engineer's acknowledgement of completion.

If, within the time fixed by law, a properly executed notice to stop payment is filed with the Agency, due to the Contractor's failure to pay for labor or materials used in the Work, all money due for such labor or materials will be withheld from payment to the Contractor in accordance with applicable laws.

At the expiration of 35 Days from the date of recording of the Notice of Completion, or as prescribed by law, the amount deducted from the final estimate and retained by the Agency will be paid to the Contractor except such amounts as are required by law to be withheld by properly executed and filed notices to stop payment, or as may be authorized by the Contract to be further retained.

**9-3.2 Partial and Final Payment.** The Engineer will, after award of Contract, establish a closure date for the purpose of making monthly progress payments. The Contractor may request in writing that such monthly closure date be changed. The Engineer may approve such request when it is compatible with the Agency's payment procedure.

Each month, the Engineer will make an approximate measurement of the Work performed to the closure date and, as a basis for making monthly payments, estimate its value based on the Contract Unit Prices or as provided for in 9-2. When the Work has been satisfactorily completed, the Engineer will determine the quantity of Work performed and prepare the final estimate.

Work not conforming to the Contract Documents shall not be measured for payment.

Conformance with the Contract Documents shall be, in addition to constructing the Work in accordance with the Contract Documents, the Contractor's compliance with those portions of the Contract Documents not directly related to the completed Work, including but not limited to: construction and maintenance of detours; diversion and control of water; protection and repair of existing facilities of the Agency and adjacent owners; site maintenance; coordination with utilities and other contractors on the site; proper survey procedures and records; obtaining required permits and inspections; complying with working hour limitations; providing a Contractor's representative while Work is being performed; complying with environmental requirements; maintaining access and safety for users of facilities that are to remain in service during construction; and obeying all laws affecting the Work.

Payment for Extra Work will be made only on approved Daily Extra Work Reports with supporting documentation as required in 3-3.

From each progress estimate, 5 percent will be deducted and retained by the Agency, and the remainder less the amount of all previous payment will be paid to the Contractor.

No progress payment made to the Contractor or its sureties will constitute a waiver of the liquidated damages under 6-9.

### **9-3.2 Partial and Final Payment. (Continued)**

As provided for in Sections 22300 of the California Public Contract Code, the Contractor may substitute securities for any monies withheld by the Agency to ensure performance under the Contract. In substituting securities, the Contractor may either:

- a. Deposit qualifying securities already owned by the Contractor with the Escrow prior to the Contract payment date, or
- b. Direct the Agency to send retained funds to the Escrow to be invested by the Escrow in qualifying securities as directed by the Contractor.

**9-3.2.1 Release of Withheld Contract Funds.** Pursuant to Public Contract Code Section 22300, Contractor has the option to deposit securities with an Escrow Agent as a substitute for retention earnings required to be withheld by Agency pursuant to the construction Contract between the Agency and the Contractor. A form of Escrow Agreement for Security Deposits in Lieu of Retention has been adopted by the Agency as one of the Contract Documents; procedures for implementing the provisions of the Escrow Agreement are contained in Escrow Instructions which shall become effective upon exercise of the option by the Contractor.

The Contractor shall take the following steps if it desires to substitute securities:

- a. Execute the Escrow Agreement for Security Deposits in Lieu of Retention.
- b. Furnish to the Escrow Agent a power of attorney and other forms necessary to empower the Escrow Agent to convert the securities to cash.
- c. Furnish to the Escrow Agent the securities described.
- d. Pay the Escrow Agent's fees and costs.

When the Contractor deposits with the Escrow Agent securities in lieu of money required to be withheld from progress payments, a sum of money equivalent to the current cash value of the securities as determined by the Escrow Agent shall be released to the Contractor by, or upon the direction of, the Agency.

If the total of the money plus the current cash conversion value of securities on deposit should fall below the aggregate amount of the sums required to be withheld from progress payments pursuant to 9-3.1 and 9-3.2, an amount equal to the difference shall be withheld from the next regular progress payment in addition to the amount which would ordinarily be withheld pursuant to 9-3.1 and 9-3.2. If the next regular progress payment is less than the total of the amounts to be withheld therefrom, the Contractor shall immediately either deposit with the Agency cash in the amount of the difference or deposit with the Escrow Agent additional securities having a current cash conversion value equal to or greater than the difference.

The Contractor shall be the beneficial owner of any such securities on deposit with the Escrow Agency and shall be entitled to any interest earned thereon prior to conversion. The Agency may direct the Escrow Agency to convert securities with the Escrow Agency into cash, and to deliver the cash to the Agency, in any case where the Contractor is in default, including the following:

- a. where the Agency would be entitled to use funds withheld pursuant to 9-3.1 and 9-3.2 to satisfy claims of workers, materials suppliers or subcontractors, or to complete or correct work which the Contractor has failed or refused to complete or correct, or
- b. where the Contractor has failed to comply with the requirements of this section respecting the deposit of additional cash or securities to make up for a fall in the value of securities already on deposit with the Escrow Agency.

The Agency may hold and use cash resulting from such a conversion of securities in the same manner as it would be entitled to hold and use funds withheld pursuant to 9-3.1 and 9-3.2.

**9-3.2.2 Timely Progress Payments.** As required by Public Contract Code Section 20104.50, the Contractor is informed that should a progress payment not be made within 30 Days after receipt of an undisputed and properly submitted payment request from the Contractor, the Agency shall pay interest to the Contractor on the unpaid amount at the rate set forth in the Code of Civil Procedures, Section 685.010(a). Agency shall promptly review payment requests, and if not determined to be proper, document to the Contractor, within 7 Days, the reasons why the request is not proper.

Contractor should refer to the code sections cited for further information.

**9-3.3 Delivered Materials.** Payment for the cost of materials and equipment delivered to the Work site but not incorporated in the Work will be included in the progress estimate if, prior to the closure date for the monthly progress payment, the material or equipment is listed by the Contractor on the Agency's form together with date of delivery, vendor's or Subcontractor's name and cost; is accompanied by a copy of an invoice showing the cost thereof; has an aggregate cost in excess of \$5,000 for each progress payment; is currently on the Work site at an approved location and in good condition; and is one of the following:

1. Precast concrete units weighing more than 100 kilograms (200 pounds) each.
2. Structural steel members weighing more than 100 kilograms (200 pounds) each.
3. Individual pieces of electrical equipment costing over \$1,000 each.
4. Individual pieces of mechanical equipment costing over \$1,000 each.
5. Reinforced concrete pipe of any size.
6. Storm drainage pipe 900 mm (36") in diameter and larger.
7. Water and sewer pipe 300 mm (12") in diameter and larger.
8. Finish hardware for doors.
9. Other individual items of equipment costing over \$1,000 each
10. Materials where the aggregate value of a single type of material exceeds \$1,000 and is either:
  - a) Fabricated or cut to fit the Work before delivery, or
  - b) Of a size or type not available from any manufacturer without a special production run.

On unit price Bid items, the amount paid for materials or equipment delivered but not incorporated in the Work shall not exceed 75% of the amount of the Bid item which includes such material or equipment.

On lump sum Bid items, the amount paid for materials and equipment delivered and not incorporated in the Work shall not exceed 75% of the item in the approved schedule submitted in accordance with 9-2 of which such materials or equipment is a part.

Should materials or equipment previously paid for be damaged, destroyed, stolen or removed from the Work site, the payment previously made therefor will be deducted from the next progress payment, unless such materials or equipment are replaced prior thereto.

On the closure date for progress payments, as provided in 9-3.2, the Contractor shall certify that all materials and equipment not incorporated into the Work, for which payment has previously been made or is being requested, is still at the Work site and in good condition. Failure to provide such certification will be cause for deducting previous payments for materials not incorporated in the Work from the amount due the Contractor in the progress payment.

Payment for materials or equipment, as provided herein, shall not constitute approval or acceptance thereof nor shall such payment modify or abridge any of the rights the Agency has under the Specifications or at law nor relieve the Surety of any of its obligations under the bonds.

### **9-3.4 Mobilization**

**9-3.4.1 Scope.** Mobilization includes preliminary services, work and operations, including but not limited to, furnishing required bonds, obtaining necessary permits and work areas, providing a specified field office, the movement of labor, supplies, equipment and incidentals to the Work site, and for all other work, services and operations which must be performed or for which costs are incurred prior to performing work of the other Contract items.

**9-3.4.2 Payment.** The Contract lump sum price bid for mobilization shall include full compensation for furnishing all labor, materials, tools, equipment, services and incidentals and for doing all work involved in mobilization as specified herein. Payment for mobilization will be made as the Work proceeds on the following basis except that where a field office is required by the Specifications, no payment for mobilization will be made until the specified field office has been provided:

Partial payment estimate (excluding mobilization & water pollution control payments) as a percentage of the original Contract price (excluding the mobilization & water pollution control Bid items).		Cumulative amount of mobilization pay item earned is the lesser of the amounts as computed by these two columns.	
Equal to or greater than	Less than	Percentage of mobilization pay item	Percentage of the original Contract total.
5	10	50	5
10	20	75	7.5
20	50	95	9.5
50	Completion of Work	100	10
Completion of Work		100	

Where no Bid item is provided for mobilization, payment for mobilization shall be considered to be included in the other Bid items.

**9-4 TERMINATION OF AGENCY LIABILITY.** After completion of all work required by the contract, Agency will furnish Contractor a Release on Contract form stating the amount of total authorized payments for the project. Contractor shall execute and return said form within 21 days of receipt. Said form shall release and discharge the Agency from all claims of and liability to the Contractor for all manner of debts, demands, accounts, claims, and causes of action under or by virtue of said Contract except:

- a. The claim against the Agency for the remainder, if any, of the amounts retained as provided in 9-3.2, and any amounts retained as required by Stop Notices or Labor Code provisions.
- b. Any unsettled claims or disputes listed on the Release on Contract form which has been processed in compliance with the requirements for making claims under the Contract, including given timely notice pursuant to the applicable provisions of the Contract and following the procedure set forth in 6-12.

Acceptance of the Release on Contract by the Agency shall not be deemed a waiver or release of the Agency's right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

When executing the Release on Contract, the Contractor shall certify that each unsettled claim or dispute listed thereon has been processed in compliance with the requirements for making claims under the Contract, including giving timely notice pursuant to the applicable provisions of the Contract and following the procedures for resolution of disputes or claims set forth in 6-12 and that acceptance of the Release on Contract by the Agency shall not be deemed a waiver or release of the Agency's right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

If Contractor fails to execute and submit a Release on Contract within the 21 day time period set forth above, the Release on Contract shall be deemed to have been submitted with no unsettled claims or disputes listed on the Release on Contract. A payment of \$1.00 will be made to the Contractor for such Release on Contract and waiver.

## **SECTION 10 - DIVERSION, CONTROL AND REMOVAL OF WATER**

**10-1 DESCRIPTION.** This section covers the diversion, control and removal of all water entering into the construction area or otherwise affecting construction activities.

**10-2 REQUIREMENTS.** All permanent construction shall be performed in a site free from water unless otherwise provided for in the Special Provisions. The Contractor shall construct, maintain, and operate all necessary cofferdams, pumps, channels, flumes, drains, well points and/or other temporary diversion, protective, and water removal works required for diversion, control and removal of all water, whether surface or groundwater, whatever its source, during construction.

Inundation of partially completed Work due to lack of control during non-working periods will not be permitted, and may be cause for requiring removal and replacement of Work already completed.

The Contractor shall be responsible for obtaining the use of any property in addition to that provided for in the Plans and Specifications, which may be required for the diversion, protective, and water removal works so as not to create a hazard to persons or property or to interfere with the water rights of others.

It shall be understood and agreed that the Contractor shall hold the Agency and the Engineer harmless from legal action taken by any third party with respect to construction and operations of the diversion and protective works.

### **10-3 DIVERSION AND CONTROL WORKS.**

Prior to beginning of work involving diversion, control and removal of water, the Contractor shall submit a water control plan to the Engineer. In the event circumstances during the course of construction require changes to the original water control plan, a revised water control plan shall be promptly submitted to the Engineer in each instance. No responsibility shall accrue to the Engineer or the Agency as a result of the plan or as a result of knowledge of the plan.

Construction and operation of the diversion, control and removal works shall be in accordance with the water control plan submitted, except deviations therefrom may be specifically approved by the Engineer.

All works installed by the Contractor in connection with dewatering, control, and diversion of water but not specified to become a permanent part of the Work, shall be removed and the site restored, insofar as practical, to its original condition prior to completion of construction or when directed by the Engineer.

**10-4 PAYMENT.** No separate Bid item is included. Payment for this item of Work will be considered to be included in the payments made for other items of Contract Work to which water control is incidental.

**PART 2 CONSTRUCTION MATERIALS**

**SECTION 200 - ROCK MATERIALS**

**200-1 ROCK PRODUCTS**

**200-1.6 Stone for Riprap**

**200-1.6.1A Alternate Stone for Riprap.** As an alternate to the requirements of Subsection 200-1.6, the sample may be subject to the following tests:

TESTS	TEST METHOD NO.	REQUIREMENTS
Apparent Specific Gravity	ASTM C 127	2.40 Min.
Resistance to Abrasion	ASTM C 535, Grading 1	35% Max.
Soundness	Section 211-8	10% Max.
Wet and Dry Loss	Section 211-9	5% Max.
Solubility	Section 211-10	No Loss

All rock shall be angular or subangular in shape. Angular shall be defined as having sharp corners and straight planes on all faces, with no evidence of wear caused by wind, water or abrasion. Subangular shall be defined the same as angular except that evidence of wear by wind, water or abrasion may be allowed. Determination of angularity will be made by the Engineer.

**200-1.6.2 Riprap Size**

The individual classes of rock used for riprap shall conform to the following:

Rock Sizes	RIPRAP CLASSES					
	1-Tonne (1-Ton)	½-Tonne (½-Ton)	¼-Tonne (¼-Ton)	Light	Facing	Cobble
	PERCENTAGE LARGER THAN					
2-Tonne (2-Ton)	0-5					
1-Tonne (1-Ton)	50-100	0-5				
½-Tonne (½-Ton)		50-100	0-5			
¼-Tonne (¼-Ton)	90-100		50-100	0-5		
100-kg (200-lb)		90-100		50-100	0-5	
35-kg (75-lb)			90-100	90-100	50-100	0-5
10-kg ( 25-lb)					90-100	95-100
0.5-kg (1-lb)	100	100	100	100	100	100

The amount of material smaller than the smallest size listed in the table for any class of riprap shall not exceed the percentage limit listed in the table determined on a weight basis.

Compliance with the percentage limit shown in the table for all other sizes of the individual pieces of any class of riprap shall be determined by the ratio of the number of individual pieces larger than the specified size compared to the total number of individual pieces larger than the smallest size listed in the table for that class.

Flat or needle shapes will not be accepted unless the thickness of individual pieces is greater than 1/3 the length.

Before placing in final location, depositing, or stockpiling within the project limits, each individual load of riprap must meet the size requirements of the class specified.

**SECTION 206 - MISCELLANEOUS METAL ITEMS**

**206-3 GRAY IRON AND DUCTILE IRON CASTINGS**

**206-3.3.2A Manhole Frame and Cover Sets**

Unless otherwise specified, manhole frames and covers shall be in accordance with the following Standard Plans contained in the SPPWC:

Clear Opening Diameter mm (Inches)	SPPWC Plan No.	Catalog Numbers	
		Alhambra Foundry	Long Beach Iron Works
600 (24)	630-1	A-1495	X-162
675 (27)	631-1	A-1496	X-164
750 (30)	632-1	A-1497	X-163
900 (36)	633-1	A-1498	X-106A

**206-5 METAL RAILINGS.**

**206-5.2 Flexible Metal Guard Rail Materials.**

**206-5.2A Flexible Metal Guard Rail Materials; Modification.** The "Construction" grade Douglas Fir for "posts, including blocks" does not have to be "free of heart center".

**SECTION 210 - PAINT AND PROTECTIVE COATINGS**

**210-6 STORM DRAIN HARDWARE.** All storm drain hardware, including manhole frames and covers, grates, protection bars, steps, etc., shall be protected from corrosion.

Storm drain hardware made of cast iron shall be protected by painting with, or dipping in, a commercial grade asphalt paint. Storm drain hardware made of steel shall be galvanized.

## SECTION 211 - MATERIAL TESTS

**211-6 SIEVE ANALYSIS.** Sieve analysis shall be performed in accordance with ASTM C136.

**211-7 Sand Equivalent Test.** This test is intended to serve as a field test to indicate the presence or absence of plastic fine material. The test shall be run in accordance with Calif. test 217 or ASTM D2419. When testing material containing asphalt, this test method shall be modified by drying the sample at a temperature not exceeding 38°C (100°F).

**211-8 R-VALUE.** Resistance (R-value) shall be determined by California Test 301.

**211-9 SPECIFIC GRAVITY AND ABSORPTION.** Apparent specific gravity, bulk specific gravity and absorption shall be determined by California Test 206, 207, 208, 209, 224, 225, or 308, Method C where zinc stearate may be substituted for paraffin.

**211-10 LOS ANGELES RATTLER TEST.** Loss in Los Angeles Rattler shall be determined by California Test 211.

**211-11 SOUNDNESS.** For riprap, the soundness shall be determined in accordance with Calif. Test 214, excluding sections D, E, G.2.b, and H, and adding the following:

- a. The test sample shall be prepared by breaking or sawing a representative sampling of riprap into particles passing the 75 mm (three inch) and retained on the 50 mm (two inch) sieve. If there are a variety of rock types or degrees of weathering within a rock type, each unique type or condition must meet the loss requirement.
- b. The test sample size shall be 25,000 grams (55 lbs.) ± 1 percent.
- c. All particles of test sample which break into three or more pieces during testing shall be discarded. The remaining sample shall be washed on a 4.75 mm (#4) sieve and all particles retained shall be oven dried.
- d. The loss in weight shall be determined by subtracting from the original weight of the test sample the final weight of all particles retained on the 4.75 mm (#4) sieve. Divide the loss in weight by the original weight and multiply by 100 to determine the percent loss.
- e. Report the following:
  - (1) The percent loss.
  - (2) The number of pieces affected, classified as to number disintegrating, splitting, crumbling, cracking, flaking, etc.

**211-12 WET AND DRY LOSS.** Wet and dry loss shall be determined as follows:

A sample of rock shall be crushed, screened, oven dried, and 1,000 g (2.2 lbs.) to 1,500 g (3.3 lbs.) of the 19 mm (3/4 inch) to 9.5 mm (3/8 inch) fraction shall be taken for the test.

The crushed and graded sample shall be submerged in tap water for 8 hours at room temperature, after which the sample shall be drained and oven dried at 78°C (140°F). When dry, the sample shall be cooled to room temperature. This completes one cycle.

After 10 cycles, the percent loss shall be computed as follows:

$$\% \text{ Loss} = \frac{100 \times \text{Weight of Material Passing 4.75 mm (No. 4) Sieve}}{\text{Total Weight of Sample}}$$

**211-13 SOLUBILITY.** Approximately 0.5 kg (one pound), air dried samples shall be immersed in local tap water and in Pacific Ocean water (or a 3.5% sodium chloride solution) for 8 hours each at 78°C (140°F). After immersion, the samples shall be washed with tap water, air dried and reweighed.

**211-14 Permeability Test.** Permeability tests for granular soils shall be performed in accordance with ASTM D2434, using samples compacted to the specified field density.

## PART 3 CONSTRUCTION METHODS

### SECTION 301 - TREATED SOILS, SUBGRADE PREPARATION AND PLACEMENT OF BASE MATERIALS

#### 301-1 SUBGRADE PREPARATION

##### 301-1.3 Relative Compaction

**301-1.3.1 Firm, Hard and Unyielding.** The term "firm, hard and unyielding" as used in 301-1.3 shall mean that when the heaviest construction and hauling equipment used on the Work drives over the subgrade, no permanent deformation shall occur either before or during pavement construction.

**301-1.4 Subgrade Tolerances.** Subgrade for pavement, sidewalk, curb and gutter, driveways, or other roadway structures shall not vary more than 15 mm (0.05 feet) from the specified grade and cross section. Subgrade for subbase or base material shall not vary more than 15 mm (0.05 feet) from the specified grade and cross section.

Variations within the above specified tolerances shall be compensating so that the average grade and cross section specified are met.

#### 301-2 UNTREATED BASE

##### 301-2.3 Compacting

**301-2.3.1 Tolerances.** The tolerance requirement in 301-2.3 is modified from 6 mm (0.02 foot) to 15 mm (0.05 foot).

### SECTION 302 - ROADWAY SURFACING

#### 302-5 ASPHALT CONCRETE PAVEMENT

##### 302-5.1 General

**302-5.1.1 Asphalt Concrete Berms.** Asphalt concrete berms shall be constructed of Class III-D-PG70-10 asphalt concrete by mechanical means to conform to the details and location as shown on the Plans.

A tack coat, as provided in 302-5.4, shall be applied to the existing or new pavement preceding the placement of the asphalt concrete berms.

##### 302-5.4 Tack Coat

**302-5.4.1 Fog Seal.** When specified, a fog seal consisting of material meeting the requirements of 203-3 shall be applied to the surfaces of all completed asphalt concrete at the rate of 0.36 liter per square meter (0.08 gallon per square yard) of the combined emulsion or such lesser rate ordered by the Engineer. Surface to be sealed shall be free from dust, dirt, and other foreign material. Surface shall be sealed within 7 Days after paving.

##### 302-5.9 Measurement and Payment

**302-5.9.1 Measurement and Payment for Asphalt Berm.** Asphalt concrete berms will be paid for at the Contract Unit Price per linear meter (feet) of berm in place. No separate measurement or payment will be made for asphalt, aggregate, or tack coat.

**302-5.9.2 Measurement and Payment for Fog Seal, Tack Coat, and Prime Coat.** Measurement and payment for the specified material shall be by the tonne (ton) in place. Emulsions shall be measured after the specified dilution has been made.

## SECTION 303 - CONCRETE AND MASONRY CONSTRUCTION

### 303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS AND DRIVEWAYS

#### 303-5.1 Requirements

**303-5.1.4 Concrete Substitution.** Class 280-C-14 (470-C-2000) may be used in lieu of Class 310-C-17 (520-C-2500) and Class 280-D-14 (470-D-2000) in lieu of Class 310-D-17 (520-D-2500) as specified in 201-1.1.2 for street surface improvements, excluding concrete pavement, when no class is specified on the Plans or in the Special Provisions.

## SECTION 306 - UNDERGROUND CONDUIT CONSTRUCTION

### 306-1 OPEN TRENCH OPERATIONS

#### 306-1.2 Installation of Pipe

##### 306-1.2.1 Bedding

**306-1.2.1.1 Bedding Material.** When native material is allowed for backfill in the bedding zone, no rocks larger than 40 mm (1½") in maximum dimensions shall be included. Material containing ashes, cinders, and types of refuse or other deleterious material shall not be used as bedding.

**306-1.2.1.2 Sewer Pipe Bedding.** Bedding for sewer pipe from 100 mm (4") below the pipe to the spring line (horizontal diameter) of the pipe shall be free draining, granular material with a maximum size of 15 mm (1/2 inch), unless another bedding method is shown on the Plans.

Densification of the bedding material may be by the application of water or by mechanical means. Unless otherwise specified, all bedding material shall be densified to a relative density of 90%. Acceptability of densification in the bedding zone will be determined by visual inspection and probing to determine that no voids exist in the backfill material. In this paragraph, the word "voids" does not include intergranular voids in the soil structure.

**306-1.2.1.3 Flexible Pipe Bedding.** Bedding for flexible drainage and sewer pipe shall be granular material having a sand equivalent of at least 50. The bedding material shall be placed and compacted from 150 mm (six inches) below the pipe to the top of the bedding as defined in 306-1.2.1. A 1 m (three foot) long section of low permeability material (50% passing 75 µm (200) sieve) shall be installed and mechanically compacted in lieu of the above specified bedding material at intervals of 60 m (200 feet) or as otherwise indicated on the Plans.

**306-9 DISINFECTION.** All water mains and appurtenances shall be disinfected before being placed in service in accordance with AWWA C651 except as specified herein:

- a. The water mains shall be chlorinated so that a chlorine residual of not less than 20 ppm remains in the water after standing in the pipe for 24 hours.
- b. The Agency will perform sampling and testing of bacteriologic samples. Disinfection shall be repeated until two or more consecutive samples are negative for coliform organisms.

The pressure in the line being chlorinated shall be maintained at least 35 kPa (5 psi) lower than that existing in any Agency line to which it is connected.

## **306-10 WATERWORKS APPURTENANCES**

### **306-10.1 Valves.** Valves shall be located as shown on the drawings.

Each valve shall be operated prior to its installation to assure proper functioning. Valves shall be installed plumb and in alignment with the water main. Valves shall be anchored by metal ties to a concrete base. Line valves may be moved to the closest joint upon approval of the Engineer.

**306-10.2 Valve Boxes.** Each underground valve shall be provided with a valve box. The valve boxes shall be installed plumb and centered over the operating nut of the valve. Valve boxes shall be installed with concrete collars.

Where valve boxes are to be placed in asphaltic type pavement, they shall not be set to grade until after paving has been completed.

Where valve boxes are to be placed in concrete pavement, they shall be set to grade prior to paving operations.

**306-10.3 Thrust Devices.** A reaction or thrust device shall be provided on all dead ends, tees, elbows, and bends with more than 5 degrees deflection on pressure pipe lines.

Thrust devices shall be cast-in-place concrete, poured against undisturbed or compacted earth. Thrust devices shall be sized and constructed in accordance with the Plans.

Thrust devices and anchor blocks shall be constructed of Class 280-C-14 (420-C-2000) concrete. Thrust devices and anchor blocks shall be cured at least 7 Days where Type IP or II cement is used or at least 48 hours where Type III cement is used.

Metal tie-rods or clamps shall be of adequate strength to prevent movement of pipe. All metal shall be coated in accordance with AWWA C110.

### **306-10.4 Fire Hydrants.** Fire Hydrants shall be installed as shown on the Plans.

All hydrants shall stand plumb and shall have their nozzles parallel with or at right angles to the curb, with the pumper nozzle facing the curb, except that hydrants having only two hose nozzles 90 degrees apart shall be set with each nozzle facing the curb at an angle of 45 degrees.

In uncurbed public road rights of way, fire hydrants shall be located as far as possible from the traveled way while providing a 1 m (3-foot) wide clear space between the fire hydrant and the right of way line. In curbed public road rights of way, fire hydrants shall be installed so that there is 300 mm (12 inches) clear between the face of curb and the fire hydrant.

**306-10.5 Fire Hydrant Barricades.** Fire hydrant barricades shall consist of 100 mm (4-inch) standard steel pipe, schedule 40, filled with concrete, and having a total length of 2 m (72 inches). They shall be embedded in concrete blocks 300 mm (12 inches) in diameter and 1000 mm (40 inches) deep below ground surface with the barricade pipe embedded to 100 mm (4 inches) above the bottom of the concrete so 1 m (36 inches) extends above ground surface. The steel pipe above ground shall be painted chrome yellow in accordance with AWWA C503.

Barricades shall be installed between the fire hydrant and vehicle traffic paths at locations indicated on the Plans or where required by the water purveyor or Fire Department. Barricades shall not be installed within public road rights of way.

Fire hydrant barricades shall not obstruct the hydrant outlets.

## SECTION 310 - PAINTING

### 310-5 Painting Various Surfaces

#### 310-5.6 Painting Traffic Striping, Pavement Markings, and Curb Markings.

**310-5.6.8A Application of Paint - Two Coats** All painted traffic striping and markings shall be applied in two coats. The price named in any Bid item for painting traffic striping and markings shall include all costs for both applications, including any delays entailed for the required drying time between applications. If bleeding, curling or discoloration occurs following application of the second coat, unsatisfactory areas shall be given an additional coat, or coats, of paint. No additional payment will be made for work necessary to correct bleeding, curling or discoloration.

**PART 4**

**SECTION 400 - ALTERNATE ROCK PRODUCTS,  
ASPHALT CONCRETE, PORTLAND CEMENT CONCRETE AND UNTREATED BASE MATERIAL**

**400-1 Rock Products**

**400-1.1 Requirements**

**400-1.1.1 General**

Alternate rock material, Type S, as specified in Section 400 may be used on the Work.

**400-3 Portland Cement Concrete**

Suppliers of portland cement concrete shall file mix designs as required by 400-1.1.2

**400-4 Asphalt Concrete**

Suppliers of asphaltic cement concrete shall file mix designs as required by 400-1.1.2



Company.

**CERTIFICATE HOLDER**

**CANCELLATION**

County of Ventura Public Works Agency L-1670 800 S. Victoria Avenue Ventura, CA 93009-1670	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE <b>THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.</b>  AUTHORIZED REPRESENTATIVE
---	---

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ACORD 25 (2010/05)

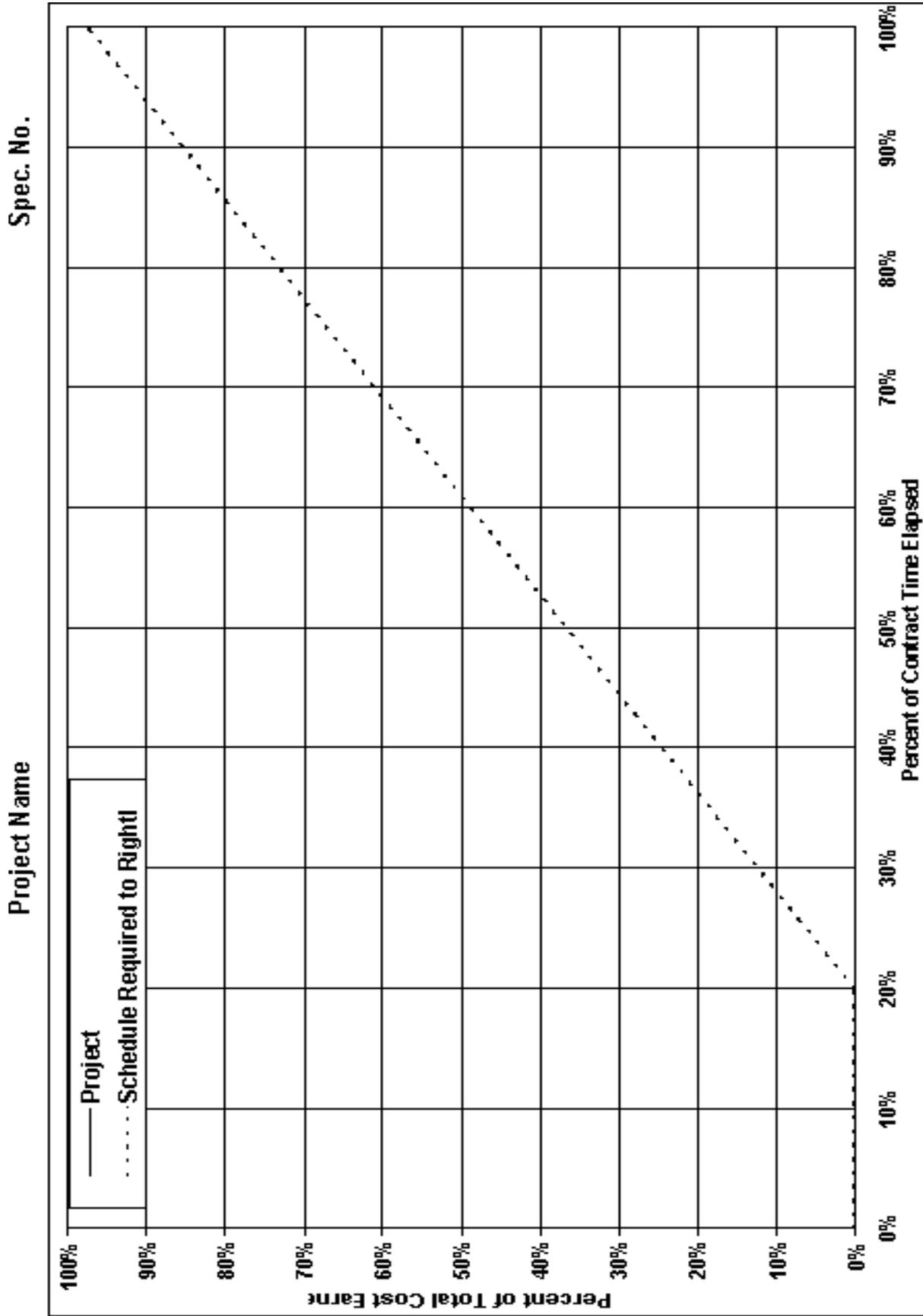
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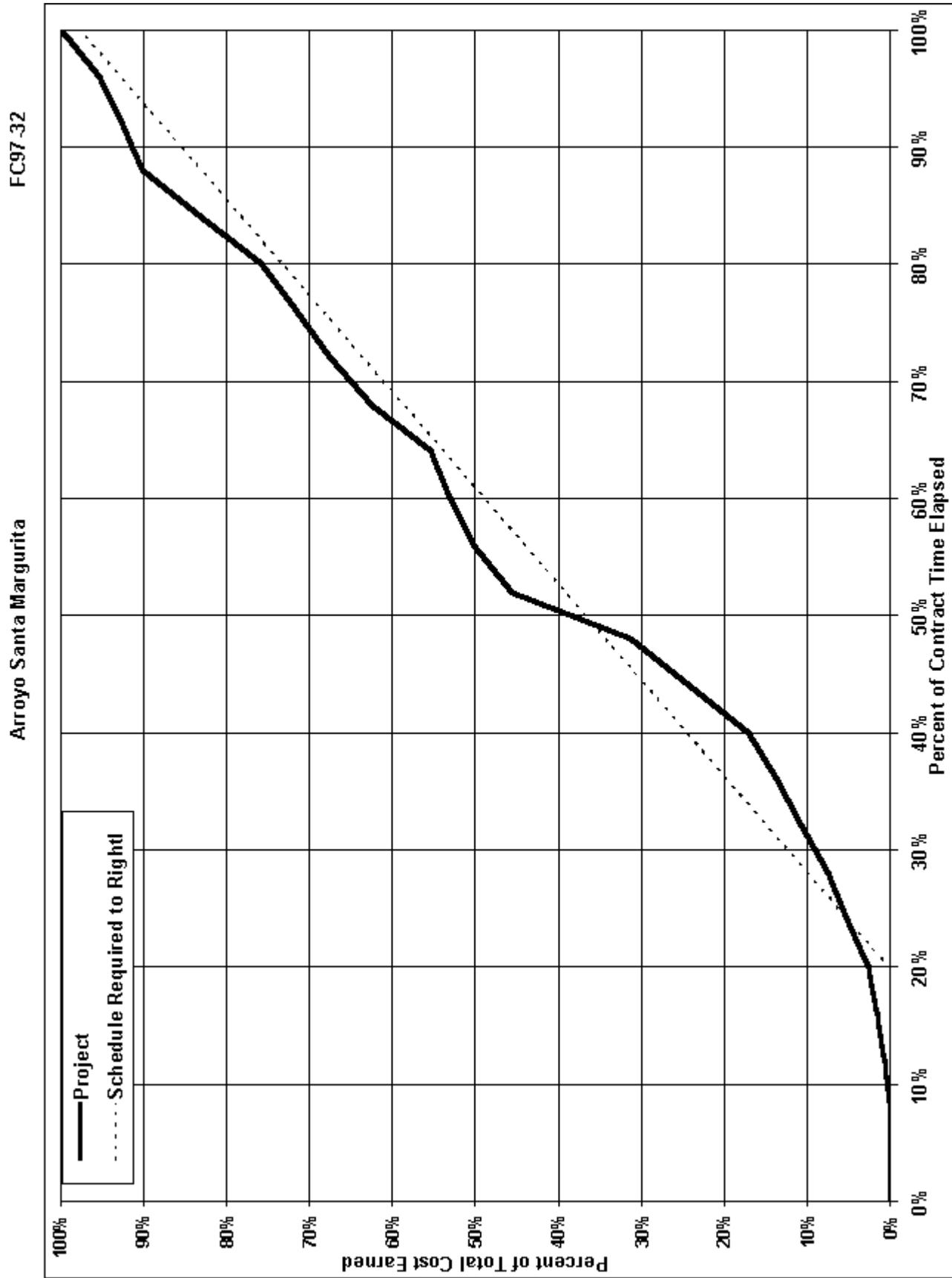
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08/25/17









**ESCROW AGREEMENT FOR  
SECURITY DEPOSITS IN LIEU OF RETENTION**

This Escrow Agreement is made and entered into by and between  
("Agency") whose address is \_\_\_\_\_ and  
("Contractor") whose address is \_\_\_\_\_ and  
("Escrow Agent") whose address is \_\_\_\_\_.

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

(1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Agency pursuant to the Construction Contract entered into between the Agency and Contractor for \_\_\_\_\_ in the amount of dated \_\_\_\_\_, (hereinafter referred to as the "Contract") which Contract is identified by Spec. No. \_\_\_\_\_ and Auditor Controller's Contract No. \_\_\_\_\_. Alternatively, on written request of the Contractor, the Agency shall make payments of the retention earnings directly to the Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Agency within ten days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Agency and Contractor. Securities shall be held in the name of \_\_\_\_\_, and shall designate the Contractor as the beneficial owner.

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

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

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

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

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

(7) The Agency shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days' written notice to the Escrow Agent from the Agency of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Agency.

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

(9) Escrow Agent shall rely on the written notifications from the Agency and the Contractor pursuant to Sections (1) to (8), inclusive, of this Agreement and the Agency and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

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

On behalf of Agency:

\_\_\_\_\_, Director,  
Public Works Agency

\_\_\_\_\_, Director  
Central Services Department

\_\_\_\_\_, Director  
Engineering Services Department

Address for all of the above:  
Public Works Agency  
800 South Victoria Avenue  
Ventura, CA 93009

**SAMPLE FORM**  
Form used for escrow will have names and signatures of persons authorized in accordance with paragraph 10.

On behalf of Contractor:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

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

\_\_\_\_\_  
City & State

\_\_\_\_\_  
Zip Code

On behalf of Escrow Agent:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

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

\_\_\_\_\_  
City & State

\_\_\_\_\_  
Zip Code

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

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

Agency:  
(Agency name)

Contractor:  
(Contractor company name)

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

EXHIBIT "A"  
ESCROW INSTRUCTIONS

The parties to this escrow are \_\_\_\_\_ ("Agency") and \_\_\_\_\_ ("Contractor") and \_\_\_\_\_ ("Escrow Agent"). Agency and Contractor have entered into a contract for the construction of \_\_\_\_\_ which contract is identified by Spec. No. \_\_\_ and Auditor-Controller's Contract No. \_\_\_\_\_ and was entered into by and between Agency and Contractor ("Construction Contract"). Pursuant to Public Contract Code Section 22300, Contractor may substitute certain securities for an equivalent amount of money required to be withheld from progress payments by Agency to Contractor pursuant to the Construction Contract.

The Escrow Agent is hereby instructed as follows:

1. Contractor may deliver to Escrow Agent:
  - (a) Securities of the types specified in Sections 22300 of the Public Contract Code and Section 16430 of the Government Code.
  - (b) Such other documents as are necessary to enable Escrow Agent to convert such securities into cash.
2. Upon receipt of such securities and other documents, Escrow Agent shall notify Agency within ten days of the deposit, and shall examine them to determine whether they are in a form sufficient to effect conversion of the securities into cash. Escrow Agent shall thereupon send written notice of its determination to Agency.
3. Escrow Agent shall hold such securities as trustee for Agency. The right of Agency to such securities is superior to any other lien or claim of lien; provided, however, that Contractor shall be entitled to any interest earned by such securities prior to their conversion to cash pursuant to section 5 hereof, and further provided that such interest may be withdrawn by Contractor at any time and from time to time without notice to Agency.

Securities may be substituted by Contractor, but any securities substituted for securities previously deposited shall not reduce the current cash value of securities held below that last reported to Agency by Escrow Agent.
4. Escrow Agent shall determine the current cash value of such securities held by it as of the close of business on the first business day following the \_\_\_\_\_ day of each month and, in addition, on any other days which the Agency may from time to time specify in a written notice to Escrow Agent. Current cash value shall be determined as follows:
  - (a) For securities traded over-the-counter or on a stock exchange:
    - (1) Determine either the current bid price for the securities as of the close of business or the face value of the securities, whichever is less.
    - (2) Subtract the cost of sale (broker commission).
    - (3) Subtract all unpaid escrow fees and costs associated therewith.
  - (b) For certificates of deposit:
    - (1) Determine the face amount.
    - (2) Subtract the potential interest penalty for immediate conversion.
    - (3) Subtract all unpaid escrow fees and costs associated therewith.
  - (c) Determine the value of other securities by procedures calculated to determine net realizable value. Promptly upon making each such determination, Escrow Agent shall notify Agency of the securities held and current cash value of such securities.





RELEASE ON CONTRACT

CONTRACT NAME: \_\_\_\_\_

SPEC. NO. \_\_\_\_\_, PROJECT NO. \_\_\_\_\_

WHEREAS, by the terms of the contract dated \_\_\_\_\_, 20\_\_\_\_ entered into by

\_\_\_\_\_ and the undersigned CONTRACTOR,

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

undersigned CONTRACTOR agreed to perform certain work for the compensation specified in said contract; and

WHEREAS, the CONTRACTOR represents that said work is fully completed and that final payment is due to the CONTRACTOR under terms of said contract,

NOW, THEREFORE, in consideration of the promises and the payment by [AGENCY NAME] to the CONTRACTOR of the amount due under the contract, to wit, the sum of \$ \_\_\_\_\_ and the additional consideration of \$1.00, receipt of which is hereby acknowledged by the CONTRACTOR, the CONTRACTOR hereby releases and forever discharges \_\_\_\_\_ of and from all manner of debts, dues, demands, sum or sums of money, accounts, claims and causes of action, in law and in equity, under or by virtue of said contract except the claim against the Agency for the remainder, if any, of the amounts retained as provided in 9-3.2, any amounts retained as required by Stop Notices or Labor Code Provisions, and any unsettled claims or disputes as follows: (If none, leave blank)

<u>Description of Claim or Dispute</u>	<u>Amount</u>	<u>Date of Claim</u>	<u>Date of Notice of Potential Claim</u>
--	---------------	--------------------------	--

The CONTRACTOR certifies that each unsettled claim or dispute listed hereon has been processed in compliance with the requirements for making claims under the contract, including giving notice pursuant to the applicable provisions of the contract, and following the procedures for resolution of disputes or claims set forth in subsection 6-12 of the contract. Acceptance of this Release on Contract by the [Agency Name] shall not be deemed as a waiver or release of its right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

IN WITNESS WHEREOF, the hand and seal of the CONTRACTOR have been hereunto set this \_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

THIS FORM MUST BE ACCOMPANIED  
by a proper acknowledgement form  
(See Civil Code Section 1189)

Contractor

By

Title

**SURETY BONDS  
PERFORMANCE BOND**

Whereas, the «Agency», hereinafter called "Agency", and «Contr», hereinafter called "principal", have entered into a contract dated «ContrDate» whereby principal agrees to complete certain designated work identified as project «ProjName» (Spec. No.«SpecNo»), and to perform other duties and obligations as described in said contract, which is incorporated herein by this reference and made a part hereof; and Whereas, principal is required under the terms of said contract to furnish a bond to guarantee principal's faithful performance of the work and all terms and conditions of the contract;

Now, therefore, we the principal and the undersigned, as corporate surety, are held and firmly bound unto Agency in the penal sum of «CostText» (\$«OrigCostFmtd») lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors, executors and administrators, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the principal, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and provisions in the said contract and any alteration thereof made as therein provided, on principal's part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless Agency, its officers, agents and employees, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

The above obligation shall continue after Agency's acceptance of the work for the duration of the warranty period as specified in the contract during which time if principal fails to make full, complete, and satisfactory repair or replacement to the work and/or fails to protect Agency from loss or damage resulting from or caused by defective materials or faulty workmanship, the obligation of surety hereunder shall continue so long as any obligation of principal remains.

**PAYMENT BOND**

And, whereas, under the terms of said contract, principal is required before entering upon the performance of the work, to file a good and sufficient payment bond with the Agency to secure the claims to which reference is made in Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code of the State of California.

Now, therefore, said principal and the undersigned, as corporate surety, are held firmly bound unto the Agency and all contractors, subcontractors, laborers, material suppliers and other persons employed in the performance of the aforesaid contract and referred to in the aforesaid Civil Code in the like sum of «CostText» dollars (\$«OrigCostFmtd») for materials furnished or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any amounts required to be deducted, withheld and paid over to the Franchise Tax Board from the wages of employees of the contractor and the contractor's subcontractors, that said surety will pay the same in an amount not exceeding the amount hereinabove set forth, and also in case suit is brought upon this bond, will pay, in addition to the face amount thereof, costs and reasonable expenses and fees including reasonable attorney's fees incurred in successfully enforcing such obligation, to be awarded and fixed by the court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

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

**GENERAL TERMS**

The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of said contract or the plans and specifications accompanying the same shall in any manner affect its obligations on these bonds, and it does hereby waive notice of any such change, extension, alteration or addition.

Nothing herein shall limit the Agency's rights or surety's obligations under the contract or applicable law, including, without limitation, California Code of Civil Procedure section 337.15.

In witness whereof, this instrument has been duly executed by the principal and surety above named

on \_\_\_\_\_, 20 \_\_\_\_\_

«Contr»  
Name of Principal

By \_\_\_\_\_

Title \_\_\_\_\_

Name of Surety

By \_\_\_\_\_

Attorney-in-Fact

Address \_\_\_\_\_

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

INDICATE COMPLETE ADDRESS OF SURETY TO WHICH CORRESPONDENCE CONCERNING THIS BOND SHOULD BE DIRECTED.

Telephone No. \_\_\_\_\_

**SAMPLE BOND FORM**  
Agency will prepare the Bond in this format and transmit it to the Contractor along with the Contract and the Notice of Award letter.  
Surety shall fill in the Bond No., date identification and signature of surety in places provided.  
Contractor shall sign and indicate title in place provided.

## **SPECIAL PROVISIONS**

# COUNTY OF VENTURA- Channel Islands Harbor

## PARKING LOT REHABILITATION – KIDDIE BEACH

SPECIFICATION NO.: HD24-01

PROJECT NO.: HD24-01

### TABLE OF CONTENTS

1000	GENERAL REQUIREMENTS	1
1001	MOBILIZATION	4
1002	TRAFFIC CONTROL & CONSTRUCTION SIGNING	6
1003	STORM WATER CONTROL PLAN	8
1004	SITE CLEARING	19
1005	EARTHWORK	21
1006	AGGREGATE BASE COURSES	26
1007	ASPHALT CONCRETE PAVING	28
1008	CURBS, GUTTERS, SIDEWALKS	32
1009	PARKING BUMPERS	36
1010	PAVEMENT MARKINGS	38
1011	ELECTRICAL-GENERAL PROVISIONS	41
1012	BASIC ELECTRICAL MATERIALS & METHODS	50
1013	MINOR ELECTRICAL DEMOLITION FOR REMODELING	55
1014	CONDUITS	58
1015	CONDUCTORS	63
1016	ELECTRICAL BOXES	67
1017	WIRING DEVICES	71
1018	SUPPORT DEVICES	79
1019	LIGHTING FIXTURES	81

# SPECIAL PROVISIONS

## SECTION 1000

### GENERAL REQUIREMENTS

#### 1.0 GENERAL PROVISIONS

**1.01 SCOPE of WORK.** The PROJECT involves the slurry sealing of the Kiddie Beach parking lot at the Channel Islands Harbor, Oxnard, California. The work consists of the crack sealing and, slurry sealing the parking lot area, pavement marking and various appurtenant work as indicated on the PLANS and described in the SPECIFICATIONS.

**1.02 PROJECT PLANS and SPECIFICATIONS.** The PROJECT PLANS and SPECIFICATIONS describe the Scope of Work and constitute the CONTRACT between the AGENCY and the CONTRACTOR. No changes in the CONTRACT including Scope of Work (SOW) items shall be made without written authorization of the Project Manager or the designated on-site representative. Written authorization shall be in the following form:

- a) Field Directive for SOW items at no cost/ no time extension.
- b) Contract Change Order for Contract terms &/or SOW items at additional cost/time extension.

**1.03 CONTRACTOR'S LICENSE REQUIREMENTS.** The CONTRACTOR shall possess a valid State of California Contractor's License - CLASS "A" (General Engineering Contractor) or CLASS "C-32" (Parking & Highway Improvement Contractor) at the time the Contract is executed. •

**1.04 PREVAILING RATES of WAGES.** Prevailing Rates of Wages conforming to the State of California requirements must be complied with. The determinations made by the State of California are available @ <http://www.dir.co.gov/DLSR/index.htm>.

**1.05 COMPLETION TIME.** The time allowed for completion of the project, **Contract Time**, is **60 Working Days**. The Contract Time will commence immediately upon issuance of the Notice To Proceed or the expiration of the 14 Calendar Days from the Award of Contract, whichever date is earliest.

**1.06 LIQUIDATED DAMAGES.** Liquidated Damages in the amount of **\$500.00 per Calendar Day** will be assessed in accordance with Section 6-9 for failure to complete the project within the 45 Working Days allowed (See VCSS-HD Section 6. 7).

**1.07 PRE-BID CONFERENCE.** Prospective bidders are encouraged to attend the Pre-Bid Conference which will be held on WEDNESDAY DAY, OCTOBER 18, 2023 at 10:00 AM at the KIDDIE BEACH PARKING LOT, CHANNEL ISLANDS HARBOR, 4301 S. VICTORIA AVE., OXNARD, CA 93035.

#### **1.07 PRE-BID CONFERENCE (Cont.)**

The meeting will be held for the purpose of answering any questions concerning the project. None of the information transmitted at this meeting is to be construed to in any way modify the

Plans and Specifications. Any modifications deemed necessary based on discussions held at the Pre-Bid Conference will be forwarded to all Plan Holders as an Addendum.

**1.08 CONSTRUCTION WATER.** The CONTRACTOR is required to provide water for dust control and construction purposes. The cost of furnishing water shall be considered incidental to the construction costs and no separate payment will be made. Potential sources of water are fire hydrants near the project site. The Contractor is responsible for contacting the agency listed below to apply for construction water.

Contact: Channel Islands Beach - (805) 985-6021  
Community Services District  
353 Santa Monica Drive  
Oxnard, CA 93035

**1.09 ACCESS and PARKING.** The construction site includes access to the public beach. Some access to the CIH Kiddie Beach must be maintained throughout the project. The CONTRACTOR shall plan the work in a manner to provide reasonable access at all times during construction. The CONTRACTOR shall prepare a "Construction Access Plan" and submit it to the Project Manager for approval prior to the commencement of any on-site construction. The Traffic Control and Construction Signing shall conform to and supplement the Construction Access Plan.

**1.10 PROJECT LAYOUT.** The CONTRACTOR shall mark with white paint all AC pavement cracks to be sealed. The Project Manager will review the AC pavement markings to insure compliance with the Plans prior to commencement of AC pavement crack sealing operations. No separate payment will be made for providing project layout.

**1.11 SANITARY FACILITIES.** The CONTRACTOR shall provide and maintain an enclosed portable toilet as specified in Section 7-8.4. No separate payment will be made for providing and maintaining portable toilets.

**1.12 PROJECT SITE MAINTENANCE.** The CONTRACTOR shall comply with all requirements of Section 7-8 to insure a clean and orderly construction site is maintained at all times. The provisions of Subsection 7-8.6 for Water Pollution Control and Section 1 O for Diversion, Control and Removal of Water shall be complied with. Measures to control the flow of water in accordance with these requirements shall be indicated in the Storm Water Pollution Control Plan (SWPCP) submitted by the CONTRACTOR.

**1.13 SUBMITTALS.** The CONTRACTOR shall prepare all submittals required by the PLANS and SPESIFICATIONS or as requested by the Project Manager (i.e. see the form provided in Attachment No. 1, Submittal List). The Submittal List along with all submittals are to be turned in to the Project Manager within 10 Working Days of issuance of the Notice to Proceed. The CONTRACTOR shall provide 5 copies of all submittal items and shop drawings in accordance with the provisions of Subsection 2-5.3. Approved submittals will be distributed as follows:

1- HD Project File; 1- Inspector; 1- ENGINEER/Project Manager; 2- CONTRACTOR.  
Rejected submittals must be promptly resubmitted with complying items.

**1.14 EMERGENCY INFORMATION.** The CONTRACTOR shall provide the following information in writing and submit it with the signed CONTRACT, Contract Bonds and

Certificate of Insurance. Failure to comply may result in delays in the processing of the Contract Documents.

1. Name of CONTRACTOR's Authorized Representative at the job site.
2. Address and Phone No. for the Authorized Representative during normal working hours and on evening and weekends
3. Address and Phone No. of the CONTRACTOR's office + name of a contact person at that office who is familiar with and authorized to discuss the PROJECT.

**1.15 HOURS of OPERATION.** Unless otherwise approved by the Project Manager, the CONTRACTOR shall not work outside the following hours of operation on this PROJECT:  
Weekdays (Mon. thru Fri.) 7:00 a.m. - 5:00 p.m.  
Weekends (Sat. & Sun.) & Holidays No Work!

**1.16 PROJECT CLOSEOUT.** The CONTRACTOR shall, upon completion of all WORK, including "Punch List" items, forward to the Project Manager a written assertion that all WORK has been completed in accordance with the PLANS and SPECIFICATIONS and request a FINAL INSPECTION. The WORK will then be inspected by the Project Manager. If, in the Project Manager's judgment, the WORK has been completed in accordance with the PLANS and SPECIFICATIONS, the Project Manager will acknowledge the completion of the WORK. This will be the date when the CONTRACTOR is relieved from responsibility to protect the PROJECT. This will also be the date to which LIQUIDATED DAMAGES will be computed.

**1.17 RECORD DRAWINGS.** The CONTRACTOR shall maintain a set of PLANS to record the "as built" conditions for the project. All deviations from the design as shown and any utilities discovered, whether shown or not, shall be noted on the PLANS. The marked-up set of "as built" PLANS are to be turned over to the Project Manager within 5 Working Days of Project Completion.

**1.18 U.S. STANDARD MEASURES.** The principal measurement system for these PLANS and SPECIFICATIONS is the U. S. Standard Measures, also called the U. S. Customary System. Delete all references to the use of the Metric International System in Section 1-4.

**1.19 PRODUCTS CONTAINING ASBESTOS or LEAD.** The provisions of Subsection 7-10.4.5.2 prohibiting the use of products containing asbestos are hereby expanded to also include lead. The Project Manager may waive this requirement for a specific product upon written request by the CONTRACTOR.

**1.20 TOXIC SUBSTANCES.** The CONTRACTOR shall not use materials or products that release toxic substances. If, during the course of construction, it is discovered that new materials or products will not meet this requirement, they are to be removed from the project at the CONTRACTOR's expense. The CONTRACTOR will be responsible for all costs including all required rework.

**END OF SECTION**

## **SPECIAL PROVISIONS**

### **SECTION 1001**

#### **MOBILIZATION**

##### **1.0 GENERAL PROVISIONS.**

Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the PROJECT site; for the establishment of all facilities necessary for work on the PROJECT; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various CONTRACT items on the PROJECT site.

##### **2.0 CONSTRUCTION MATERIALS.**

NONE

##### **3.0 CONSTRUCTION METHODS.**

###### **3.1 STORM WATER POLLUTION CONTROL PLAN (SWPCP).**

- A.** Construction activity under this PROJECT will be subject to the requirements of the County of Ventura, National Pollution Discharge Elimination System (NPDES), Municipal Storm Water Permit No. CAS004002 (Order No. R4-2010-0108, dated July 8, 2010), as the area of disturbed soil is less than One (1) acre. The Permit requires that a Storm Water Pollution Control Plan (SWPCP) be prepared and implemented during construction of this PROJECT.
- B.** The CONTRACTOR shall comply with all terms and conditions of this Plan for the duration of the PROJECT. The CONTRACTOR shall be held solely responsible for any sanctions, fines, penalties, or other actions taken against the AGENCY as a result of the CONTRACTOR's failure to meet the terms and conditions of the Plan.
- C.** Prior to commencing work, the CONTRACTOR shall complete the SWPCP application and make any modifications required and insert applicable CONTRACTOR responsibility information. This information shall be completed during the Mobilization element. Upon commencing work, the CONTRACTOR shall be responsible for utilizing Best Management Practices outlined in the referenced Permit for the duration of the PROJECT. No separate payment will be made for compliance with the SWPCP. All costs associated with SWPCP compliance should be included under Mobilization.

##### **4.0 MEASUREMENT AND PAYMENT.**

**4.1 MEASUREMENT.** Mobilization for the project will be measured as a single quantity of work completed in accordance with these SPECIFICATIONS and as directed by the Project Manager.

**4.2 PAYMENT.** Mobilization will be paid at the Lump Sum amount bid for BID ITEM No. 1 times the quantity as measured above. Such payment will be made when the monthly partial payment estimate of the amount earned, not including the amount earned for Mobilization, is

25 percent or more of the original CONTRACT amount. Such payment shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in Mobilization as specified herein.

**END OF SECTION**

## **SPECIAL PROVISIONS**

### **SECTION 1002**

#### **TRAFFIC CONTROL AND CONSTRUCTION SIGNING**

##### **1.0 GENERAL PROVISIONS**

The CONTRACTOR shall be responsible for maintaining traffic control, including construction and removal of all detour(s), in accordance with the provisions of Subsection 7-1.0 of the Standard Specifications, the current requirements set forth in the "Traffic Manual" published by the Department of Transportation, State of California, and the requirements of the PLANS, STANDARD SPECIFICATIONS, and these SPECIAL PROVISIONS.

The CONTRACTOR shall submit a "Traffic Control and Construction Signing Plan" to the Project Manager that conforms to the "Construction Access/Parking Plan" (see Section 1000-1.09). No work on the project shall commence until the plan is approved by the Project Manager.

The CONTRACTOR shall close the parking lot and parking lot access roads as indicated in the "Construction Access/Parking Plan" (see Section 1000-1.09). Appropriate signage for parking lot closure, beach access, pedestrian sidewalk access and restroom access shall be provided.

The CONTRACTOR's equipment and personal vehicles of the CONTRACTOR's employees shall not be parked on the traveled way or sandy beach areas at any time, except as provided in the approved Traffic Control Plan.

All construction work and traffic control shall be scheduled and constructed to provide for a minimum inconvenience and maximum safety to the vehicular and pedestrian traffic.

##### **2.0 CONSTRUCTION MATERIALS**

Traffic signs, delineators, and barriers shall conform to the Traffic Manual published by the State of California - Department of Transportation (CalTrans).

##### **3.0 CONSTRUCTION METHODS**

###### **3.1 CONSTRUCTION SIGNING**

Construction signing shall consist of furnishing, installing, maintaining and removing construction signs, delineators, and barricades as required by the "Traffic Manual" published by the Department of Transportation, State of California, and the requirements of the Plans, Standard Specifications, these Special Provisions and as directed by the Project Manager.

### **3.1 CONSTRUCTION SIGNING (Cont.)**

Traffic control signs shall be installed prior to starting any work phase, maintained throughout the duration of the work phase, kept free of graffiti at all times during construction, and shall not be removed until that work phase has been completed.

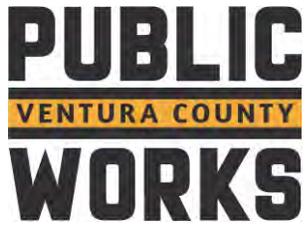
The CONTRACTOR shall notify the Project Manager at least two (2) working days before starting any work phase. The CONTRACTOR shall handle traffic through the work area that cannot be detoured around the work and shall make arrangements relative to keeping the area clear of parked vehicles.

## **4.0 MEASUREMENT AND PAYMENT**

**4.1 MEASUREMENT.** Traffic Control and Construction Signing will be measured as a single quantity of work complete and as accepted by the Project Manager.

**4.2 PAYMENT.** Traffic Control and Construction Signing, including construction and removal of all detours, will be paid at the Lump Sum amount bid for BID ITEM No.2 times the quantity as measured above. Such payment shall be considered as full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in Traffic Control and Construction Signing as specified herein.

**END OF SECTION**



**COUNTY OF VENTURA STORMWATER PROGRAM**

**COUNTY OF VENTURA**

**1003 STORMWATER POLLUTION CONTROL PLAN (SWPCP)**

**Project Name**

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**Project Information (if applicable)**

Tract/Plan No.: \_\_\_\_\_

Grading Permit No.: \_\_\_\_\_

Building Permit No.: \_\_\_\_\_

Land Use No.: \_\_\_\_\_

Conditional Use Permit No.: \_\_\_\_\_

Subdivision No.: \_\_\_\_\_

Assessor Parcel Number:: \_\_\_\_\_

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

General Description: \_\_\_\_\_

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Construction Start Date: \_\_\_\_\_

Construction Completion Date: \_\_\_\_\_

**Stormwater Pollution Control Plan (SWPCP) Prepared by:**

\_\_\_\_\_  
Name, Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Agency or Contractor Name

\_\_\_\_\_  
Agency or Contractor Phone No.

# REQUIREMENTS FOR STORMWATER POLLUTION CONTROL PLAN

For County owned or operated construction projects including those under a Capital Improvement Project Plan that disturb less than one acre of soil, the County of Ventura requires the development and implementation of a Storm Water Pollution Control Plan (SWPCP) to meet requirements of the County of Ventura National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit Order No. R4-2010-0108 (dated July 8, 2010).

The purpose of the SWPCP is to identify potential pollutant sources that may affect the quality of discharges and to design the use and placement of Best Management Practices (BMPs) to effectively prohibit the entry of pollutants from the construction site into the storm drain system during construction. Erosion and sediment source control BMPs should be considered for both active and inactive (previously disturbed) construction areas. BMPs for wind erosion and dust control are also included. The SWPCP may require modification as the project progresses and as conditions warrant.

The SWPCP shall be developed and implemented in accordance with the NPDES Municipal Stormwater Permit No. CAS004002 (Order No. R4-2010-0108; dated July 8, 2010), and any other requirements established by the County of Ventura.

All project contractors and subcontractors shall implement an effective combination of appropriate erosion and sediment control BMPs prescribed by the Ventura County Municipal Stormwater Permit Order No. R4-2010-0108 as applicable on the County owned or operated construction projects. The purpose of BMP implementation is to prevent erosion and sediment loss, and the discharge of construction wastes.

This SWPCP includes BMP references from the California Stormwater Best Management Practice Handbooks (Construction (11/09 ver.), Municipal, New Development & Redevelopment, and Industrial). The handbooks may be obtained from the California Stormwater Quality Association (CASQA), Post Office Box 2105, Menlo Park, CA 94026-2105; 650-366-1042; [www.casqa.org](http://www.casqa.org) or [www.cabmphandbooks.com](http://www.cabmphandbooks.com).

### Acronyms and Abbreviations:

CASQA	California Stormwater Quality Association
BMP	Best Management Practice
NPDES	National Pollutant Discharge Elimination System
SWPCP	Stormwater Pollution Control Plan

# COUNTY OF VENTURA

## STORMWATER POLLUTION CONTROL PLAN

### Project Owner/Developer/Operator Information

Project Manager: \_\_\_\_\_

Project Engineer: \_\_\_\_\_

County Agency: \_\_\_\_\_

Department/Division: \_\_\_\_\_

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

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

Estimated Start Date  
of Project: \_\_\_\_\_

Estimated Finish  
Date of Project: \_\_\_\_\_

## **Site Map Requirements**

In addition to proposed construction plans, provide the following information, *if applicable*.

- Parcel Size = \_\_\_\_\_ acres
- Construction work area = \_\_\_\_\_ acre/acres.
- Soil disturbance area = \_\_\_\_\_ acre/acres.  
Note: This SWPCP is only required for construction projects disturbing less than 1 acre of soil. All construction projects that disturb one acre or more of soil or that disturb less than one acre of soil, but the site is a part of a larger common area of development or sale, require coverage under the State National Pollutant Discharge Elimination System (NPDES) General Construction Permit No. CAS000002. For more information refer to [http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/construction.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml).
- Existing paved areas and buildings.
- Areas of existing vegetation to be protected/preserved.
- Areas where it is known that toxic materials have been stored, disposed, spilled, or leaked onto the construction site.
- Affected water courses, lakes, wetlands, springs, and wells.
- Watershed boundary of offsite areas that drain into construction site.
- Boundary of drainage area where stormwater leaves property.
- Areas of soil disturbance and locations of potential soil erosion areas requiring BMPs during construction.
- Areas of cut and fill.
- Drainage patterns and slopes anticipated after major grading activities.
- Locations of existing storm drain facilities.  
Types and locations of stormwater structures, controls, and/or BMPs that will be built/utilized to control stormwater pollution during construction. Provide a brief description of BMPs selected and, if appropriate, attach modified fact sheets or additional information.
- Construction and erosion control material storage areas.
- Temporary stockpile and construction waste storage areas.
- Construction vehicle storage and service areas.

The above information should be updated as needed to meet evolving construction conditions.

## **Inventory of Contractor's Activities and Special Conditions**

1. Describe construction materials, equipment, and vehicles that will be used onsite.
  
2. Describe the existing soil and source description of fill material (reference or attach soils report if available).
  
3. Provide a description of special site conditions that may contribute pollutants to all discharges and how they are to be controlled.
  
4. Describe stormwater structures/controls on the site prior to construction and how these structures/controls will be integrated into the SWPCP to reduce sediment and other pollutants in all discharges.
  
5. Provide the sequence for implementation or installation or proposed BMPs.
  
6. List waters, other than stormwater, which will flow from the site during dry weather, the approximate amount of flow, and methods for preventing or treating these dry weather flows.

Attach sheets if additional space is required.

**Monitoring, Inspection, and Maintenance Requirements**

1. Implement maintenance/repair efforts to ensure that the required BMPs are in good and effective condition. (A maintenance/repair plan is attached? Yes No)
2. Annually train all site personnel responsible for installing, inspecting, and maintaining BMPs (training program/material attached? Yes No) Document training is provided in Attachment 2.
3. At minimum conduct one site inspection during the wet season (between October 1 and April 15). Keep records and document inspection information on the Inspection form (Attachment 1)

**Best Management Practices - BMPs**

Complete the following charts. The BMPs listed may be used if applicable or adequate. Additional BMPs may apply. Please do not attach the BMP Fact Sheets referenced from the California Stormwater BMP Handbooks to the County’s copy of the SWPCP; however, the BMP Fact Sheets must be attached to the SWPCP that is kept at the construction site. BMPs can be downloaded from the California Stormwater Handbooks at [www.casqa.org](http://www.casqa.org) or <http://www.dot.ca.gov/hq/construc/constmanual/>

**Table 1. BMPs at Construction Sites Less than 1 Acre**

BMPs Selected – Noted by Ref. ID from the California Stormwater BMP Handbooks		Use BMP		(If no, state reason)
		Yes	No	
<b>Erosion Control BMPs</b>				
EC-1 or SS-1	Scheduling			
EC-2 or SS-2	Preservation of Existing Vegetation			
<b>Temporary Sediment Control BMPs</b>				
SE-1 or SC-1	Silt Fence			
SE-8 or SC-8	Sandbag Barrier			
<b>Temporary Tracking Control BMPs</b>				
TC-1	Stabilized Construction Entrance/Exit			
<b>Non-Stormwater Management BMPs</b>				
NS-1	Water Conservation Practices			
NS-2	Dewatering Operations			

**Table 1. BMPs at Construction Sites Less than 1 Acre (Continued)**

BMPs Selected – Noted by Ref. ID from the California Stormwater BMP Handbooks		Use BMP		(If no, state reason)
		Yes	No	
<b>Waste Management &amp; Materials Pollution Control BMPs</b>				
WM-1	Material Delivery & Storage			
WM-3	Stockpile Management			
WM-4	Spill Prevention & Control			
WM-5	Solid Waste Management			
WM-8	Concrete Waste Management			
WM-9	Sanitary/Septic Waste Mgmt.			
<b>Additional BMPs Selected</b>				

## Certification

### Contractor

As the Contractor of record, I have selected appropriate BMPs to effectively minimize the negative impacts of this project's construction activities on stormwater quality. The project owner is aware that the selected BMPs must be installed, monitored, and maintained to ensure their effectiveness. The BMPs not selected for implementation are redundant or deemed not applicable to the proposed construction activity.

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

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

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

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

### Owner/Developer:

I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is true, accurate, and complete. I am aware that submitting false and/or inaccurate information, failing to update the SWPCP to reflect current conditions, or failing to properly and/or adequately implement the SWPCP may result in sanctions provided by law.

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

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

County Agency: \_\_\_\_\_

Department/Division: \_\_\_\_\_

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

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

# Attachment 1 to SWPCP

## Inspection Checklist for Construction Sites Less Than One Acre

County's Project Engineer or Project Inspector shall conduct site inspection at sites less than one acre for the implementation of storm water quality controls a minimum of once during the wet season (October 1 through April 15) using this checklist. Keep a copy of the completed inspection checklist with the project SWPCP on site.

**DATE OF INSPECTION:** \_\_\_\_\_

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

**Inspector's Name:** \_\_\_\_\_

**Weather Conditions during inspection:** \_\_\_\_\_

	Item	Compliance Accomplished			Date Completed
		YES	NO	N/A	
1	Are erosion control measures (BMPs) identified in SWPCP in place and effective?				
2	Are sediment control measures (BMPs) identified in SWPCP in place and effective?				
3	Is the site entrance stabilization adequate?				
4	Is equipment/vehicles parked in designated areas and free from significant leaks? Are drip pans present as needed?				
5	Are maintenance areas free from stains on the soil?				
6	Are all materials stored in bins or covered in plastic and protected from storm water?				
7	Is construction waste being disposed of in proper trash containers?				
8	Are concrete washout stations present and being utilized and maintained?				
9	Is fugitive dust being controlled and water being used as needed?				
10	Are catch basins, drainage channels, drain inlets/outlets being protected?				

**Construction Site Inspection Checklist (Continued)**

Comments:

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I certify under penalty of law that this inspection is true, and I or a qualified assigned person has performed the required inspection as stated in the SWPCP.

\_\_\_\_\_  
Inspector Name

\_\_\_\_\_  
Inspector Signature

Date \_\_\_\_\_

## Attachment 2 to SWPCP

### Trained Personnel Log

Employees and contractors must be trained on the SWPCP prior to start of construction and annually thereafter. Contractor shall keep original training logs as an attachment to the project specific SWPCP.

#### Stormwater Management Training Log

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

Project Number/Location: \_\_\_\_\_

Stormwater Management Topic: (check as appropriate)

- |   |   |
|---|---|
| <input type="checkbox"/> Erosion Control            | <input type="checkbox"/> Sediment Control                                 |
| <input type="checkbox"/> Wind Erosion Control       | <input type="checkbox"/> Tracking Control                                 |
| <input type="checkbox"/> Non-storm water management | <input type="checkbox"/> Waste Management and Materials Pollution Control |
| <input type="checkbox"/> Storm Water Sampling       |   |

Specific Training Objective: \_\_\_\_\_

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

Instructor: \_\_\_\_\_ Telephone: \_\_\_\_\_

Course Length (hours): \_\_\_\_\_

#### Attendee Roster (attach additional forms if necessary)

Name	Company	Phone

COMMENTS:

SECTION 1004  
SITE CLEARING

1.0 GENERAL

1.01 SUMMARY

- A. This Section requires the selective removal and subsequent off-site disposal of the following:
  - 1. Removal and offsite disposal of grass and root mat.
  - 2. Demolition of asphalt concrete and pavements as indicated on the drawings to straight, neatly saw cut surface.
  - 3. All other removals which may or may not been shown on plans as required for the project construction.

1.02 SITE CONDITIONS

- A. Protections: Contractor shall provide temporary barricades and other forms of protection to protect general public from injury due to demolition work.
- B. Traffic: Conduct demolition operations and debris removal to ensure minimum interference with roads, streets, walks, bike paths, and other adjacent occupied or used facilities. Access must be coordinated with District's Representative.
- C. Utility Services: Maintain all existing utilities to remain in service and protect them against damage during demolition operations.
- D. Environmental Controls: Use water sprinkling, temporary enclosures, and other methods to limit dust and dirt migration. Comply with governing regulations and County Air Pollution Control District pertaining to environmental protection. Do not use water when it may create hazardous or objectionable conditions such as flooding and pollution.

1.03 REFERENCES

- A. Standard Specifications for Public Works Construction (Green Book), latest edition.

2.0 PRODUCTS (NOT APPLICABLE)

3.0 EXECUTION

3.01 DEMOLITION

- A. General: Perform demolition work in a systematic manner. Use such methods as required to complete work indicated on drawings in accordance with governing regulations.

- B. Provide services for effective air and water pollution controls as required by County Air Pollution Control District regulations.
- C. Prior to commencing grading operations, soil containing debris, organics, pavement, or other unsuitable materials, shall be stripped from the foundation and pavement areas. Demolition areas shall be cleared of old foundations, slabs, abandoned utilities, tree roots, and soil disturbed during the demolition process. Depressions or disturbed areas left from the removal of such material shall be replaced with compacted fill under observation by the Geotechnical representative.

3.02 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove from Project site debris, rubbish, and other materials resulting from demolition operations. Transport and legally dispose of off site.
- B. If hazardous materials are encountered during demolition operations, contact District's Representative.
- C. Burning of removed materials is not permitted on project site.

3.03 HAZARDOUS MATERIALS

- A. Except as otherwise specified, in the event Contractor encounters on the Project site material reasonably believed to be asbestos, polychlorinated biphenyl (PCB), or other hazardous materials which have not been rendered harmless, Contractor shall immediately stop Work in the area affected and report the condition to the District's Representative in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of the Contractor if in fact the material is asbestos, PCB, or other hazardous materials and has not been rendered harmless. The Work in the affected area shall be resumed in the absence of asbestos, PCB, or other hazardous materials, or when such materials have been rendered harmless.
- B. Construction involving asbestos cement (transite) pipe shall be performed by qualified personnel in accordance with the standards and specifications set forth by American Water Works Association (AWWA), the Occupational Safety and Health Act (OSHA) and the Environmental Protection Agency (EPA), as well as location jurisdictional codes.

3.04 CLEANUP AND REPAIR

- A. General: Upon completion of demolition work, remove tools, equipment and demolished materials from site.
  - 1. Repair demolition performed in excess of that required. Return elements of construction and surfaces to existing condition prior to start of operations. Repair adjacent construction or surfaces soiled or damaged by demolition work.

END OF SECTION

SECTION 1005  
EARTHWORK

1.00 GENERAL

1.01 SUMMARY

- A. Section includes: Excavation, Compaction and Fill.

1.02 REFERENCE

- A. Standard Specifications for Public Works Construction (SSPWC), latest edition.

1.03 QUALITY ASSURANCE

- A. Codes and Standards: Perform earthwork in compliance with applicable requirements of governing authorities having jurisdiction.

- 1. Standard Specifications for Public Works Construction (SSPWC), latest edition.
- 2. CAL/OSHA Construction Safety Order Requirements.

1.04 PROJECT CONDITIONS

- A. The Contractor shall visit the site and familiarize himself with existing site conditions.

- B. Additional test borings and other exploratory operations may be made by the Contractor at no cost or liability to the District.

- C. Existing Utilities:

- 1. Where uncharted or incorrectly charted piping or other utilities are encountered during excavation, consult District 's Representative immediately for directions. Cooperate with the District's Representative in keeping respective services and facilities in operation. Repair damaged utilities to the satisfaction of the District's Representative at no cost to the District. Disturbed trench sections shall be replaced in kind.
- 2. Contractor to coordinate with the District 's Representative to obtain all required permits and schedule inspections.

- D. Protection of Subgrade: Do not allow equipment to pump, rut, or disturb subgrade, stripped areas, or other areas prepared for Project.

- E. Contractor shall implement measures to prevent soil erosion, and where possible, sediment shall be retained onsite.

2.00 PRODUCTS (Not Applicable)

3.00 EXECUTION

3.01 SITE PREPARATION

A. General:

1. Remove vegetation, improvements, or obstructions interfering with installation of new construction. Transport and legally dispose of off site. Removal includes stumps and roots. Contractor shall utilize the best construction method to minimize the erosive effect from the removal of site vegetation.
2. Carefully and cleanly cut roots and branches of trees indicated to be left standing, where such roots and branches obstruct new construction. Paint cuts over one inch in size with tree pruning compound. Care shall be taken so as not to scar any area of the tree's bark.
3. In order to protect from sediment transfer or contamination from urban run-off during construction, the following grading and erosion control practices shall be followed:
  - a. If grading occurs during the rainy season (November through April), sediment traps, barriers, covers or other methods shall be used to reduce erosion and sedimentation.
  - b. Excavated materials shall not be deposited or stored where the material can be washed away by high water or storm run-off.
  - c. Grading operations on site shall be conducted so as to prevent damaging effects of sediment production and dust on the site and on adjoining properties.
  - d. When vegetation has to be removed on site, the methods shall be one that minimizes the erosive effects from the removal.
  - e. Exposure of soil to erosion by removing vegetation shall be limited to the area required for construction operations. The construction area shall be fenced to define the project.
  - f. Temporary mulching, seeding, or other suitable stabilization shall be used to protect areas during construction or other land disturbance activities on site.
  - g. Topsoil, removed from the surface in preparation for grading and construction activities on Campus is to be stored on or near the site and protected from erosion while grading operations are underway, provided that such storage may not be located where it would cause suffocation of root systems of trees to be preserved. After completion of such grading, topsoil is to be restored to exposed cut and fill embankments of building pads so as to provide a suitable base of seeding and planting.

- h. Sediment basins, sediment traps, or similar control measures shall be installed before extensive clearing and grading operations begin for site development.
- i. Water or dust palliatives shall be applied to exposed earth services as necessary to control dust emissions.
- j. Revegetation or stabilization of exposed earth surfaces shall take place as soon as possible.

B. Removals

- 1. Clear the site of trees, shrubs, and other vegetation, which is indicated to be removed.
- 2. Completely remove stumps, roots, and other debris to avoid problems with future utilities.
- 3. Use only hand methods for grubbing inside the drip line of trees indicated to be left standing.
- 4. Existing fills, soil containing debris, organics, pavement, or other unsuitable materials shall be excavated and removed prior to commencing grading operations. Demolition areas shall be cleared of old foundations, slabs, abandoned utilities, landscaping, and soils disturbed during the demolition process. Depressions or disturbed areas left from the removal of such material shall be replaced with compacted fill.
- 5. The limits and depths for removal of existing fill materials shall be evaluated by project soils engineer during grading.
- 6. Revegetation or stabilization of exposed earth surface shall take place as soon as possible.

C. Removal of Improvements

- 1. Remove above-grade and below-grade improvements necessary to permit construction and other work as indicated.
- 2. Remove from site and legally dispose of off-site, existing fill materials, soil debris, or other unsuitable materials prior to commencing grading operations.

3.02 EXCAVATION

- A. Excavation for Pavements: Cut surface under pavements to comply with cross-sections, elevations and grades as shown, within a tolerance of plus or minus 0.04 foot.
- B. Excavation for Planting Areas: Conform to cross-sections, elevations and dimensions shown, within a tolerance of plus or minus 0.10 foot.

### 3.03 COMPACTION

- A. General: Control soil compaction during construction providing minimum percentage of density specified for each area.
- B. Percentage of Maximum Density Requirements: Compact soil to not less than the percentages of maximum dry density specified on the plans and in accordance with ASTM D1557-91 method of compaction.
- C. Moisture Control:
  - 1. When moisture content of exposed scarified soil and/or full material is below that sufficient to achieve recommended compaction, water shall be added to the soil and/or fill. While water is being added, soil shall be bladed and mixed to provide relatively uniform moisture content throughout the material.
  - 2. When moisture content of exposed scarified soil and/or fill material is excessive, material shall be aerated by blading or other methods. Fill placed in pavement areas shall be compacted at near optimum moisture content. Jetting is not permitted for compaction.

### 3.04 FILL

- A. In all excavations, use satisfactory excavated or borrow material sampled and tested by the District 's Testing Laboratory.
- B. Fill excavations as promptly as Work permits, but not until completion of the following:
  - 1. Acceptance by District's Representative of construction below finish grade including, where applicable, waterproofing, damp-proofing, and drainage pipe.
  - 2. Examination, testing, approval and recording locations of underground utilities.
  - 3. Removal of concrete formwork.
  - 4. Removal of shoring and bracing and backfilling of voids with satisfactory materials.
  - 5. Removal of trash and debris.
  - 6. Permanent or temporary horizontal bracing is in place on horizontally supported walls.
  - 7. Protect excavations by methods required to prevent cave-in or loose soil from falling into excavation.
- C. Continual dust control, as required by the District, and in accordance with County Air Pollution Control District's Standards shall be required for the project construction.

### 3.05 GRADING

- A. General: To provide support for building floor slabs, all existing fill and unsuitable natural soils shall be excavated and replaced as properly compacted fill.
- B. Compaction: After grading, compact subgrade surfaces to the depth and percentage of compaction for each area classification.
- C. Fill placement and grading operations shall be performed only under the observation of the District 's Testing Laboratory.
- D. The exterior grades around building areas shall be sloped to drain away from the buildings to prevent ponding of water adjacent to foundations.
- E. Grading operation shall be conducted so as to prevent damaging effects of sediment product and dust on the site and adjoining properties.

### 3.06 DISPOSAL OF EXCESS AND WASTE MATERIALS

- A. Transport excess excavated material and legally dispose of off site.

### 3.07 FIELD QUALITY CONTROL

- A. Quality Control Testing During Construction: District 's Testing Laboratory will observe, test and approve subgrades and fill layers before further construction Work can be performed. The District's Representative will determine the frequency of tests. Subgrade: Allow at least one field density test of subgrade to be made for every 2000 sq. ft. of paved area, but in no case less than 3 tests.
- B. Field examination and testing will be performed by the District 's Testing Laboratory. The Contractor shall cooperate with such testing and shall give the District's Representative advance notice of grading scheduling.
- C. Frequency of Tests for Trenching: As determined by the District's Representative.
- D. If in the opinion of the District's Representative, based on soil testing reports and observations, subgrades or fills which have been placed are below specified density, provide corrective work as specified at no additional expense to the District, and pay for retesting of the soil.

### 3.08 PROTECTION

- A. Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
- B. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.
- C. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape, compact to required density and provide other corrective work as specified, with retesting, prior to further construction.

END OF SECTION

SECTION 1006 AGGREGATE  
BASE COURSES

1.00 GENERAL

1.01 SUMMARY

- A. Aggregate base course for curbs, gutters, and sidewalks.

1.02 RELATED SECTIONS

- A. Section 31 20 00 Earthwork.
- B. Section 32 12 16 Asphalt Concrete Paving.
- C. Section 32 16 00 Curbs, Gutters, Sidewalks, and Driveways.

1.03 REFERENCES

- A. Standard Specifications for Public Works (SSPWC), latest edition.
- B. ASTM Standards.
- C. State Standard Specifications (SSS), Caltrans, latest edition.

1.04 SUBMITTALS:

- A. Submit material samples and reports in accordance with requirements of District.
- B. Submit samples in sufficient quantities for material testing.

2.00 PRODUCTS

2.01 MATERIALS

- A. Aggregate Base Material shall be Class 2 Aggregate Base conforming to SSS Section 26-1.02A. Aggregate Base shall have a minimum sand equivalence of 22 and a minimum R-value of 78 and shall be free of organic materials and other deleterious substances.
- B. Aggregate Base materials used within building areas shall be free of asphaltic materials.

3.00 EXECUTION

3.01 EXAMINATION

- A. Verify substrate has been inspected; gradients and elevations are correct, and dry.

3.02 AGGREGATE BASE PLACEMENT

- A. Aggregate base placement shall conform to the provisions of the SSPWC, Section 301-2.
- B. Level and contour surfaces to elevations and gradients indicated.
- C. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.
- D. Where the required aggregate base thickness is 6 inches or less, the watered base may be spread and compacted in one layer. Where the required thickness is more than 6 inches, the aggregate base material shall be spread and compacted in 2 or more layers of approximately equal thickness. The maximum compacted thickness of any one layer shall not exceed 6 inches.
- E. Aggregate base course shall be dense and unyielding upon proof-rolling with full water truck.

### 3.03 TOLERANCES

- A. Flatness: Maximum variation of 1/4 inch.
- B. Scheduled Compacted Thickness shall conform to the provisions of the SSPWC Section 301-2.2.

### 3.04 FIELD QUALITY CONTROL

- A. Inspection and testing shall be performed by the District's Testing Laboratory. Compaction testing will be performed in accordance with ASTM D1557, latest edition.
- B. If tests indicate work does not meet specified requirements, remove work, replace and retest at Contractor's expense.

END OF SECTION

SECTION 1007  
ASPHALT CONCRETE PAVING

1.00 GENERAL

1.01 SUMMARY

- A. Asphaltic concrete paving for parking lots and driveway pavements.

1.02 RELATED SECTIONS

- A. Section 31 20 00 Earthwork.
- B. Section 32 11 23 Aggregate Base Course.

1.03 REFERENCES

- A. Standard Specifications for Public Works Construction (SSPWC), latest edition.
- B. ASTM Standards.

1.04 SUBMITTALS

- A. Submit asphalt concrete mix design(s) for approval of the District Representative.

1.05 TESTING AND INSPECTION

- A. Testing and inspection of asphalt pavement mix(es) and testing of placed stabilizing base course and asphalt pavement will be performed by the District's Testing Laboratory. Testing and inspection will be performed so as to minimize disruption of work.
- B. Allow the District's Testing Laboratory access to the mixing plant for verification of weights or proportions, character of materials used and determination of temperatures used in the preparation of asphaltic concrete mix.

2.00 PRODUCTS

2.01 GENERAL

- A. Provide the aggregate base, and bituminous surface conforming to the requirements of the Standard Specifications for Public Works Construction (SSPWC).

2.02 PAVING MATERIALS

- A. Asphalt Concrete: Asphalt concrete material shall be C2-PG 64-10 per SSPWC Section 203-6. The grading and proportioning of aggregates shall be such that the combined mineral aggregate conforms to the specified requirements.
- B. Asphalt Emulsion: SSPWC Section 203-3, Grade SS-1h.

- C. Prime Coat: Grade SC-70 per SSPWC Section 203-2.
- D. Aggregates for base course shall conform to requirements of Specification Section 32 11 23, Aggregate Base Course.

2.03 ASPHALT PAVEMENT MIX

- A. Combine mineral constituents in proportions to produce a mixture conforming to requirements of the SSPWC Section 203-6.
- B. Percentage by weight of asphalt cement in mixture shall be in accordance with SSPWC Section 203-6.
- C. Maintain thorough and uniform mixture.
- D. Bring asphalt and mineral constituents to required temperatures before mixing. Ensure aggregates are sufficiently dry so as not to cause foaming in mixture.

3.00 EXECUTION

3.01 GENERAL

- A. Execute Work in accordance with SSPWC Section 302.

3.02 PREPARATION

- A. Ensure grading of subgrade to required elevation. Subgrade preparation shall be per SSPWC Section 301.
- B. Before final rolling, shape entire section, add additional sub-soil if necessary, and compact subgrade to provide grades, elevation and cross-section indicated. Points of finished subgrade surface shall be within 0.04 foot of elevations indicated on the Drawings.

3.03 BASE COURSE

- A. Place aggregate base in accordance with requirements of SSPWC Section 301 and to the thickness shown on the Drawings. Grade and compact in 6-inch layers to at least 95 percent of compaction (ASTM D1557).

3.04 MAINTENANCE

- A. Maintain the base course until the asphaltic pavement is in place. Maintenance shall include drainage, rolling, shaping and water as necessary to maintain the course in proper condition. Maintain sufficient moisture at the surface to prevent a dusty condition. Areas of completed base course that are damaged shall be conditioned, reshaped and re-compacted in accordance with the requirements of the Specifications without additional cost to the District.

3.05 TACK COAT

- A. Prior to the application of the asphalt concrete, a paint binder (tack coat) shall be applied to all surfaces of walkway, curbs, gutters, manholes and drainage structures which will be in contact with asphalt pavement per SSPWC Section 302-5.4.
- B. Coat surfaces of catch basins which are to remain free of asphalt with oil, or provide equivalent protection, to prevent asphalt adhesion.

### 3.06 PRIME COAT

- A. Prior to the application of the asphalt concrete, a prime coat shall be applied at a rate of 0.20 to 0.40 gallons per square yard.

### 3.07 ASPHALT CONCRETE

- A. Requirements: The bituminous concrete shall consist of mineral aggregate, uniformly mixed with bituminous material in a central plant in accordance with SSPWC Section 203-6. The percentage of asphalt binder shall be in accordance with SSPWC Section 203-6. The mixing plant and construction equipment shall conform to the requirements of SSPWC Sections 203-6 and 302-5.
- B. Placing: Deliver bituminous mixtures to the work site temperatures specified in SSPWC Section 302-5.5. Spread and place in accordance with SSPC Section 302-5.5. Asphalt surface shall be fog-sealed.
- C. Compaction: Initial or breakdown rolling and the final rolling of the uppermost layer of the asphalt concrete shall be in accordance with SSPWC Section 302-5.6. Compaction by vehicular traffic shall not be permitted.

### 3.08 JOINING PAVEMENT

- A. Carefully make joints between old and new pavements or between successive days work in such manner as to insure a continuous bond between old and new sections of the course in accordance with SSPWC Section 302.
- B. Expose and clean edges of existing pavement. Cut edge to straight, vertical surfaces. Paint all joints with a uniform coat of tack coat before the fresh mixture is placed. Prepare joints in the new pavement in accordance with SSPWC Section 302-5.7.

### 3.09 JOINING NON-PAVED AREAS

- A. Where paving will join landscape or other non-hardscape area a redwood header shall be installed.

### 3.10 TOLERANCES

- A. Flatness: Maximum variation of 1/8 inch when measured with a 10-foot straight edge.
- B. Variation from True Elevation: Within 1/4 inch.

### 3.11 FIELD QUALITY CONTROL

- A. Inspection and testing shall be performed by the District's Testing Laboratory.
- B. Field inspection and testing will be performed by the District's Testing Laboratory. The Contractor shall cooperate with such testing and shall give the District Representative advance notice of paving scheduling. Sufficient "Advance Notice" shall be determined by the District Representative.
- C. If tests indicate materials do not meet specified requirement, replace material and retest at no additional cost to the District.
- D. Frequency of Test: As determined by the District's Testing Laboratory.

3.12 PROTECTION

- A. After placement, protect pavement from mechanical injury.

END OF SECTION

SECTION 1008  
CURBS, GUTTERS, SIDEWALKS

- 1.00 GENERAL
- 1.01 SUMMARY
  - A. Concrete for curbs, gutters, sidewalks.
- 1.02 RELATED SECTIONS
  - A. Section 31 20 00 – Earthwork
- 1.03 REFERENCES
  - A. Standard Specifications for Public Works Construction (SSPWC), latest edition.
  - B. ASTM Standards.
- 1.04 SUBMITTALS
  - A. Submit the following:
    - 1. Product Data: Provide data on admixtures and curing compounds.
    - 2. Concrete mix design(s).
    - 3. Certificates from the batch plant.
- 1.05 QUALITY ASSURANCE
  - A. Perform Work in accordance with the SSPWC, latest edition; and ASTM Standards, latest edition.
  - B. Obtain cementitious materials from same source throughout.
- 1.06 ENVIRONMENTAL REQUIREMENTS
  - A. Do not place concrete when base surface temperature is less than 40 degrees F or surface is wet.
- 2.00 PRODUCTS
- 2.01 FORM MATERIALS
  - A. Form Materials: Section 303-5 of the SSPWC.
- 2.02 CONCRETE MATERIALS
  - A. Concrete Material for Curbs and Walks (Path of Travel):

1. Class 520-C-2500. Portland cement concrete per Standard Specifications for Public Works Construction Section 201-1.
2. Concrete reinforcements shall be constructed per the Project Plans and Specifications.

B. Concrete Material for Traffic Loaded Concrete:

1. Class 650-CW-4000. Portland cement concrete per Standard Specifications for Public Works Construction Section 201-1.
2. Concrete reinforcements shall be constructed per the Project Plans and Specifications.

2.03 ACCESSORIES

- A. Curing Compound shall conform to SSPWC Section 201-4. Pigmented compound shall not demonstrate any residual coloring of the concrete after one week.

2.04 CONCRETE MIX

- A. Mix and deliver concrete in accordance with ASTM C94.
- B. Use accelerating admixtures in cold weather only when approved by the District's Representative. Use of admixtures will not relax cold weather placement requirements.
- C. Use calcium chloride only when approved by the District 's Representative.
- D. Use set retarding admixtures during hot weather only when approved by the District 's Representative.

2.05 CONCRETE REINFORCEMENT

- A. Concrete reinforcement shall conform to SSPWC Section 201-2.

2.06 SOURCE QUALITY CONTROL

- A. Provide certificates of compliance from the batch plant.

3.00 EXECUTION

3.01 EXAMINATION

- A. Verify compacted subgrade is acceptable and ready to support imposed loads.
- B. Verify gradients and elevations of subgrade are correct.

3.02 PREPARATION

- A. Moisten subgrade to minimize absorption of water from fresh concrete.

- B. Coat surfaces of catch basin frames with oil to prevent bond with concrete pavement.
- C. Notify District's Representative a minimum of 24 hours prior to commencement of concrete placement operations.

### 3.03 FORMING

- A. Place and secure forms to correct location, dimension, and profile.
- B. Assemble formwork to permit easy stripping and dismantling without damaging concrete.
- C. Place joint filler vertical in position, in straight lines. Secure to formwork during concrete placement.

### 3.04 PLACING CONCRETE

- A. Place concrete in accordance with SSPWC Section 303-5.
- B. Install ½" thick fiberboard expansion joint and snap cap. Seal with Sikaflex self-leveling sealant after removal of snap cap (typical).
- C. Construct weakened plane joints conforming to SSPWC Section 303-5.4.3, 1 ¼" inch deep, at intervals not exceeding 12 feet.
- D. The top edges of curbs shall have 0.5" radius.

### 3.05 FINISHING

- A. Concrete finishes shall be per SSPWC Section 303-5.5.
- B. Portland cement concrete paving in all accessible routes of travel shall have slip resistant finish.
- C. Walkway grades in excess of 5% shall conform to requirements of Section 11B-401 of the latest edition of the California Building Code.
- D. Place curing compound in accordance with SSPWC Section 303-5.6 on exposed concrete surfaces immediately after finishing. Apply in accordance with manufacturer's instructions.

### 3.06 FIELD QUALITY CONTROL

- A. Inspection and testing shall be performed by the District's Testing Laboratory.
- B. District 's Testing Laboratory will perform slump and compressive strength tests.
- C. Contractor shall maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

### 3.07 PROTECTION

- A. Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, vandalism and mechanical injury.
- B. It is the Contractor's responsibility to replace all concrete work subject to vandalism and graffiti at no extra cost to the District.

END OF SECTION

SECTION 1009  
PARKING BUMPERS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Parking bumpers.
- B. Adhesive.
- C. Steel bars for installation.

1.02 MEASUREMENT AND PAYMENT

- A. Measurement: Precast concrete parking bumpers will be measured for payment as an aggregate lump-sum unit, acceptably installed and completed.
- B. Payment: Precast concrete parking bumpers will be paid for in aggregate at the Contract Lump-sum price, as indicated in the Bid Schedule of the Bid Form.

1.03 REFERENCES

- A. State of California, Department of Transportation (Caltrans), Standard Specifications, latest edition:
  - 1. Section 95 Epoxy

1.04 SUBMITTALS

- A. Shop Drawings: Submit Shop Drawings of bumpers, including plan layout and installation details, for approval.
- B. Product Data: Submit manufacturers' product data of precast bumpers and epoxy adhesive for approval.

1.05 QUALITY ASSURANCE

- A. Precast parking bumpers shall be manufactured for the intended purpose by a company or firm specializing in the manufacture of precast concrete parking appurtenances.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Parking Bumpers:
  - 1. Provide precast concrete parking bumpers of half octagonal configuration and dimensions indicated on Contract Drawing. Unless indicated otherwise, provide bumpers 48 inches length.

3. Bumpers shall be manufactured of Class 4000 reinforced concrete to withstand constant use and rough service. Each bumper shall be reinforced with two No. 4 deformed steel reinforcing bars, minimum.
  4. Bumper to be installed on at-grade asphalt pavement shall be manufactured with two holes to accommodate the installation rebar. Holes shall be positioned 6 inches in from each end and shall not exceed the dowel diameter by more than 1/4 inch.
- B. Adhesive: Adhesive for anchoring bumpers or wheel stops to pavement shall be an epoxy adhesive manufactured for the purpose, similar and equal to the adhesives specified in Section 95 of the Caltrans Standard Specifications, Article 95-1.02.
- C. Steel Bars for Installation: Epoxy-coated rebar, No. 5 size, conforming with applicable requirements of Contract Specifications.

### PART 3 – EXECUTION

#### 3.01 INSTALLATION

- A. For installation on asphalt pavements, precast concrete bumpers shall be anchored and secured in position on at-grade, as indicated, with two No. 5 epoxy-coated rebar and an appropriate epoxy adhesive as specified in Article 2.01.C and 2.01B herein.
- B. For installation on concrete pavements, precast concrete bumpers shall be secured in position on at-grade concrete pavements, as indicated, with an appropriate epoxy adhesive as specified in Article 2.01.B herein.

END OF SECTION

## SECTION 1010

### PAVEMENT MARKINGS

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

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

##### 1.2 SUMMARY

- A. This Section includes surface preparation and field application of pavement marking on hot-mix asphalt paving and Portland cement concrete paving.

##### 1.3 SUBMITTALS

- A. Product Data:
  - 1. Material List: Provide an inclusive list of required coating materials, including primers and other surface preparation materials. Indicate each material and cross-reference specific coating and application. Identify each material by manufacturer's catalog number and general classification.
  - 2. Manufacturer's Information: Provide manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each coating material proposed for use.
  - 3. Certification by the manufacturer that products supplied comply with local regulations controlling use of volatile organic compounds (VOCs).
- B. Results of preconstruction field testing.

##### 1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of pavement marking material from one source and by a single manufacturer.
- B. Installer Qualifications: Engage an experienced installer who has completed pavement marking similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance of at least 5 years.
- C. Pre-Application Field Testing: Prepare a sample marking of each different paint formulation on asphalt substrates for the purpose of establishing quality of application, adherence of paint to the substrate, compatibility of the paint with the asphalt, and to determine whether a primer will be necessary if not otherwise required by the manufacturer.
  - 1. Minimum length of test stripe: 3 feet.
  - 2. Perform a minimum of 3 test stripes, located to provide a representative sample of entire area indicated to receive pavement marking paint.
  - 3. Apply test markings using methods and equipment recommended by the manufacturer of the marking paint and as specified in this Section.
  - 4. Arrange for a technical representative of the marking paint manufacturer to observe cured test samples and provide written recommendations for changes, if any, to materials or methods necessary to achieve optimum paint performance on specific substrates.

##### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver pavement-marking materials to Project site in original packages with seals unbroken and bearing manufacturer's labels containing brand name and type of material, date of manufacture, and directions for storage.

- B. Store pavement-marking materials in a clean, dry, protected location and within temperature range required by manufacturer. Protect stored materials from direct sunlight.

## 1.6 PROJECT CONDITIONS

- A. Pavement-Marking Paint: Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature of 50 deg F, and not exceeding 90 deg F.

## PART 2 - PRODUCTS

### 2.1 PAVEMENT MARKING MATERIALS

- A. Pavement-Marking Paint: Lead free latex, water-base emulsion, ready-mixed, complying with FS TT-P-1952, and suitable for use on both hot-mix asphalt and Portland cement concrete paving. Provide material having a volatile organic compound (VOC) content of 250 g/L, or less.
  - 1. Colors:
    - a. Color: White (for all parking stalls other than disabled access parking, for traffic and lane marking, and for painted text).
    - b. Color: Yellow, where indicated.
    - c. Color: Red (for "No Parking" areas as shown).
    - d. Color: Blue (for pavement markings identifying disabled access parking and paths of travel).
  - 2. Gloss: Flat or eggshell with gloss at 30 percent or less when measured at a 60-degree meter.
- B. Primer: Type recommended by the marking paint manufacturer.
- C. Surface Cleaning Material: Cleaning agent or agents suitable for removing grease, oil, and other contaminants that will not damage asphalt or Portland cement concrete paving and are acceptable to pavement marking paint manufacturer.

## PART 3 - EXECUTION

### 3.1 PAVEMENT MARKING

- A. Allow paving to cure for a minimum of 30 days before starting pavement marking. Comply with recommendations of the pavement marking paint manufacturer for longer cure periods.
- B. Sweep and clean surface to eliminate loose material and dust. Ensure all surfaces indicated to receive pavement marking are clean and free from grease, oil, concrete sealers and curing agents, and other contaminants that might interfere with paint adhesion.
  - 1. Comply with manufacturer's instructions for use of special cleaning agents.
  - 2. For removal of substances that would interfere with paint adhesion use methods recommended by the paint manufacturer if applicable, or methods that will completely remove the substance without damaging or discoloring the underlying pavement substrate.
- C. Apply paint with mechanical equipment to produce pavement markings of dimensions indicated with uniform, straight edges. Apply at manufacturer's recommended rates based on substrate type and cure conditions to provide a minimum wet film thickness of 15 mils and dry film thickness of 8 mils, unless otherwise recommended by the manufacturer.
- D. Comply with paint manufacturer's maximum recommended drying time before allowing traffic in order to prevent undue softening of bitumen and pick-up, displacement, or discoloration of pavement marking by vehicular traffic.

- E. Paint pavement, curbs, and other surfaces as shown on the Drawings. Painting shall be straight, uniform, exact, and sharp without blobs at the start and finish. Edges shall be even, accurate, symmetrical, and free of fuzziness.
  - 1. Edge Tolerance: 1/2 inch in 20 feet, maximum.
- F. Apply markings for disabled access symbols in accordance with State of California Building Code, Part 2, Title 24, California Building Standards.
- G. Where work consists of modifications of, or additions to existing pavement marking, match existing color and line width.

### 3.2 ADJUSTING

- A. Touch up pavement markings not complying with requirements of this Section by painting out the errors with permanently opaque paint of the same color as the substrate pavement.
  - 1. Block out and eliminate all traces of splashed, tracked, and spilled pavement marking paint from the background surfaces.
  - 2. Paint over deviations in marking edges exceeding allowable tolerance and apply new marking meeting specified requirements.
- B. The Owner reserves the right to require sandblast removal of extensive defective pavement marking and application of new marking meeting specified requirements at no additional cost.

### 3.3 PROTECTION

- A. Provide traffic cones, barricades, and other devices needed to protect the pavement marking until it is sufficiently dry to withstand traffic without damage.

**END OF SECTION**

## SECTION 1011

### GENERAL PROVISIONS

#### PART 1 - GENERAL

- A. The general contract provisions apply to this section and take precedent over this section in case of conflict.

#### 1.01 GENERAL PROVISIONS

- A. This division supplements the applicable requirements of other divisions.

#### 1.02 DEFINITIONS

- A. For the purposes of Division 260000, the following definitions apply:
  - 1. Provide: Furnish and install.
  - 2. Indicated: As shown on the drawings or specified herein.
  - 3. Circuit Designation: Panel designation and circuit number, i.e., LA-13.
  - 4. Approved equal: Approved by the engineer of record as equal in his sole determination.

#### 1.03 SCOPE OF WORK

- A. The Specifications for Work of Division 260000 include, but are not limited to the following sections:
  - 26 0000–General Provisions
  - 26 0030–Tests and Identification
  - 26 0050–Basic Electrical Materials and Methods
  - 26 0060–Minor Electrical Demolition for Remodeling
  - 26 0111–Conduits
  - 26 0120–Conductors
  - 26 0130–Electrical Boxes
  - 26 0140–Wiring Devices
  - 26 0190–Support Devices
  - 26 2510–Lighting Fixtures
- B. Work Included: All labor, materials, appliances, tools, equipment, facilities, transportation and services necessary for and incidental to performing all operations in connection with furnishing, delivery and installation of the work of this division, complete, as shown on the drawings and/or specified herein. Work includes, but is not necessarily limited to the following:

1. Examine all divisions for related work required to be included as work under this division.
  2. General provisions for electrical work.
  3. Site observation including existing conditions.
- C. Related Work Specified Elsewhere but included in the scope of work:
1. Motors and their installation.
  2. Control wiring and conduit for heating, ventilating and air conditioning.
- D. Work Not In Contract (N.I.C.):
1. Telephone instruments.
- E. Coordination
1. The following supplements are additional General Requirements pertaining to work of this Division. Provisions of Division 1 - General Requirements shall remain in effect.
    - a) Coordinate work of various sections of Division 26 and 27.
    - b) Coordinate work of this Division 26 with work of Divisions 2 through 25.

1.04 REFERENCE STANDARDS

- A. American National Standards Institute (ANSI).
- B. Association of Edison Illuminating Companies (AEIC).
- C. Electrical Testing Laboratories (ETL).
- D. Illuminating Engineering Society (IES).
- E. Institute of Electrical and Electronic Engineers (IEEE).
- F. Insulated Cable Engineers Association (ICEA).
- G. National Electrical Manufacturers Association (NEMA).
- H. National Fire Protection Association (NFPA).
- I. Underwriters Laboratories, Inc. (UL).
- J. California State Fire Marshal (CSFM).

K. California Energy Commission (CEC) Title 24.

1.05 QUALITY ASSURANCE

A. Regulations: All the electrical equipment and materials, including their installations, shall conform to the following applicable latest codes and standards:

1. California Electric Code, Latest Adopted Edition (NEC), 2020 unless a more current version has been adopted.
2. Local and State Fire Marshal.
3. Occupational Safety and Health Act (OSHA).
5. Local Codes and Ordinances.
6. Requirements of the Office of the California State Architect (OSA).
7. California Administrative Code, Title 8, Chapter 4, Industrial Safety Orders.
8. California Administrative Code, Title 24.
9. Division of State Architect - California.

B. Variances: In instances where two or more codes are at variance, the most restrictive requirement shall apply. In instances where plans and specifications are at variance or conflict the most restrictive requirement shall apply. Contractor shall be responsible for all his associated work and materials and also the work and materials of related or affected trades.

C. Contractor's Expense: Obtain and pay for all required bonds, insurance, licenses, and pay for all taxes, fees and utility charges required for the electrical work.

D. Testing and Adjustment:

1. Perform all necessary tests required to ascertain that the electrical system has been properly installed, that the power supply to each item of equipment is correct, and that the system is free of grounds, ground faults, and open circuits, that all motors are rotating in the proper directions, and such other tests and adjustments as may be required for the proper completion and operation of the electrical system. Contractor shall provide a copy of all test reports to prove these tests have been performed.
2. If, during the course of testing, it is found that system imbalance is in excess of 20%, rearrange single-pole branch circuit in lighting and receptacle panels to bring system balance to within 20% on all phases. Record all such changes on the typewritten panelboard schedule and submit a summary of changes to the Engineer on the record drawings.

1.06 SUBMITTALS

- A. Procedure: In accord with the Submittal Section.
- B. Shop drawings: Detailed shop drawings for the following equipment:
  - 1. Distribution panelboards.
  - 2. Branch circuit panelboards.
  - 3. Circuit breaker.
  - 4. Switchboards.
  - 5. Motor control centers.
  - 6. Contactors and cabinet.
- C. Product data: Detailed manufacturer's data for:
  - 1. Cabinets.
  - 2. Disconnects.
  - 3. Lighting fixtures and associated equipment including control.
- D. Test results for the following:
  - 1. Grounding systems.
  - 2. Cables.
- E. Include sufficient information to indicate complete compliance with Contract Documents. Include illustrations, catalog cuts, installation instructions, drawings, and certifications. On each sheet show manufacturer's name or trademark.
- F. Operating, maintenance, and instruction data for:
  - 1. EM inverter
- G. Instruction materials:
  - 1. Provide at the time of personnel instruction period three bound copies of instruction manuals for the systems as listed in Subparagraph 1.04.A.4.f.
  - 2. Include the following (minimum) information in each copy of instruction manual:
    - a) Manufacturers' names and addresses including phone numbers.
    - b) Serial numbers of items furnished.

- c) Catalog information, exploded views and brochures, complete with technical and performance data for all equipment, marked to indicate actual items furnished and intended use.
- d) Recommended spare parts.

1.07 OWNER'S PERSONNEL INSTRUCTIONS

- A. Prior to completion of the contract, and at the Owner's convenience, instruct verbally and demonstrate to the Owner's personnel, the operation of the systems as listed under operating, maintenance, and instructional data and/or emergency generator, automatic transfer switch and fire alarm annunciator panel.

1.08 CLEANING

- A. Clean exterior surfaces and interiors of equipment and remove all dirt, cement, plaster and other debris. Protect interior of equipment from dirt during construction and clean thoroughly before energizing.
- B. Clean out cracks, corners and surfaces on equipment to be painted. Remove grease and oil spots so that paint may be applied without further preparation.

1.09 PROJECT RECORD DOCUMENTS - Prepare the following and submit to the engineer before final acceptance:

- A. Mark Project Record Documents daily to indicate all changes made in the field.
  - 1. In addition to general requirements of Project Record Drawings, indicate on drawings, changes of equipment locations and ratings, trip sizes, and settings on circuit breakers, alterations in raceway runs and sizes, changes in wire sizes, circuit designations, installation details, one-line diagrams, control diagrams and schedules.
- B. Use green to indicate deletions and red to indicate additions.
  - 1. Use the same symbols and follow the same drafting procedures used on the Contract Drawings.
- C. Locate dimensionally off of contract drawings all underground conduit stubbed-out for future use, underground feeder conduits, and feeder pull box locations using building lines by indicating on the Project Record Drawings.
- D. At the completion of underground conduit installation provide underground conduit record documents to owner's representative.
- E. Two copies, in binder form, of all test results as required by these specifications
- F. Two copies of local and/or state code enforcing authority final inspection certificates.

- G. Two copies, in binder form, of electrical equipment cut sheets, manufacturer's installation instructions, warranty certificates, and product literature for all products utilized on project.

1.10 SERVICE INTERRUPTIONS AND UTILITY

- A. Coordinate with the Owner the interruption of services necessary to accomplish the work.
- B. Coordinate with the campus maintenance department all work associated with power and communications distribution systems and service entrance equipment.
- C. Electrical contractor shall supply temporary power for all trades.

1.11 MINIMUM SPECIFICATION REQUIREMENTS (ALL WORK OF DIVISION 260000)

- A. As a minimum Specification requirement, all materials and methods shall comply with applicable governing codes.

1.12 PENETRATION SEALING

- A. Seal penetration through exterior walls and fire rated walls, floors, ceilings, and roofs with 3M Firestopping materials of fire rating capacity rated per architectural plans and UBC or prevailing building code requirements.

1.13 PLACING EQUIPMENT IN SERVICE

- A. Do not energize or place electrical equipment in service until all interested parties have been duly notified and are present or have waived their rights to be present. Where equipment to be placed in service involves service or connection from another contractor of the owner, notify the owner in writing when the equipment will be ready for final testing/connection and schedule to the owner's satisfaction of this service connection. Notify the owner two weeks in advance of the date the various items of equipment will be complete.

1.14 OWNER-FURNISHED ITEMS

- A. Pick up Owner-furnished items and handle, deliver, install, and make all final connections.
  - 1. Assume responsibility for the items when consigned at the storage facility or in the field in accord with requirements of the Contract Documents.

1.15 ELECTRIC ITEM LOCATION

- A. Electrical drawings are generally diagrammatic. Verify equipment sizes with shop drawings and manufacturers' data and coordinate location layout with other trades.

Notify owner and engineer of any changes of location requirements prior to installation and obtain engineer's written acceptance for all changes/revisions.

#### 1.16 DEMOLITION

- A. Scope: Provide and perform demolition, preparatory and miscellaneous work as indicated and specified, complete.
- B. Principal Items of Work:
  - 1. Demolition and removal of existing electrical conduit, wiring and equipment required to complete the project.
  - 2. Preparation of the existing building to receive or connect the new work.
  - 3. Miscellaneous demolition, cutting, alteration, and repair work in and around the existing building necessary for the completion of the entire project.
  - 4. Disconnecting and reconnection of electrical equipment as required by the construction modifications.
- C. Existing Conditions: Make a detailed survey of the existing conditions pertaining to the work. Check the locations of all existing structures, equipment and wiring (branch circuiting and controls). Provide at bid time any exclusions for existing conditions work.
- D. Salvage and Disposal: All removed material other than items to be reused shall be returned to the owner or disposed of in accordance with instructions from the owner's representative. Disposal shall be done in accordance with EPA and governing body requirements and regulations. Contractor shall pay all fees and charges for disposal.

#### 1.17 ELECTRICAL WORKMANSHIP REQUIREMENTS

- A. It is required that all electrical construction of this Contract be performed by journeyman electricians. All journeyman electricians shall have a minimum of 4 years of apprenticeship training and hold a valid Certificate of Completion from an apprenticeship training course approved by the State of California Department of Industrial Relations, Division of Apprenticeship Standards. This is intended to mean that a person who does not hold a valid Certificate of Completion from an apprenticeship training course approved by the State of California Department of Industrial Relations, Division of Apprenticeship Standards will not be permitted to do electrical work of any kind that involves new construction, nor make repairs, alterations, additions, or changes of any kind to any existing system of electrical wiring, apparatus, equipment, light, heat, or power.
- B. Contractor may employ electrical helpers or apprentices on any job of electrical construction, new or existing, when the work of such helpers or apprentices is performed under direct and constant personal supervision of a journeyman electrician

holding a valid Certificate of Completion from an apprenticeship training course approved by the State of California Department of Industrial Relations, Division of Apprenticeship Standards.

1. Each journeyman electrician will be permitted to be responsible for quality of workmanship for a maximum of eight helpers or apprentices during any same time period, provided the nature of work is such that good supervision can be maintained and quality of workmanship achieved is the best, as expected by Owner and as implied by the latest edition of the California Electrical Code (National Electrical Code with State of California amendments).
  2. Before each journeyman electrician commences work, deliver to Owner at project site a photocopy of journeyman's valid Certificate of Completion from an apprenticeship training course approved by the State of California Department of Industrial Relations, Division of Apprenticeship Standards.
- C. All electrical systems shall be installed in a neat and workmanlike manner per National Electrical Code requirements and ANSI approved NEIS National Electrical Installation Standards.

#### 1.18 DESIGN CHANGES AFTER AWARD OF BID

- A. When a change in the quantity or size of conductors is made, the conduit size will remain in accordance with that indicated in the original contract drawings rather than the drawing symbol conduit table. When code permits, provide conductor insulation 'THWN' where required to maintain conduit fill conformance with the National Electrical Code.

#### 1.19 MATERIAL AND EQUIPMENT SUBSTITUTION

- A. Where two or more trade names or manufacturers are mentioned, selection shall be made from the group listed for use in the base bid. The order in which names are listed is not intended to be any indication of preference.
- B. Where a single manufacturer, product or trade name is stated, that manufacturer, product or trade name shall be used in the base bid. The use of other manufacturers, products or trade names will be considered by the engineer of record (unless that product is indicated for no substitution) only if submitted as alternate items at the time of bidding, with evidence of equality and a statement of net price difference as compared to the specified item. After approval by the engineer of record, the architect and owner reserve the right to review such submittals and to determine the acceptability for use.
- C. Equipment other than that specified will be accepted only when written approval is given by the engineer of record and architect, in accordance with Division 1.
- D. The contractor shall be held responsible for all physical changes in piping, equipment, etc. resulting from equipment substitution and likewise bear any increased cost of

other trades in making said substitution. Approval by the architect of equipment other than that specified does not relieve this contractor of this responsibility.

1.20 REQUESTS FOR INFORMATION

- A. The contractor shall submit all requests for information (RFI's) typewritten on the attached form.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

## SECTION 1012

### BASIC ELECTRICAL MATERIALS & METHODS

#### PART 1 - GENERAL

- 1.01 DESCRIPTION: Division 1 applies to this Section. This Section contains general requirements for the Sections in Division 26.
- A. Related Work Not in Division 26: Refer to individual Division 26 Sections.
- 1.02 QUALITY ASSURANCE:
- A. Codes: Entire installation shall comply with requirements of authorities having jurisdiction.
- B. Permits: Contractor shall pay for all permits required by work under this Division.
- C. Inspections: Contractor shall arrange for all inspections and correct non-complying installations.
- 1.03 SUBMITTALS: Refer to Division 1 for procedures.
- A. Material and Equipment: Prior to start of work, 6 copies of a list of all materials and equipment covered by Division 26 shall be submitted for approval. Contractor shall allow ample time for checking and processing and shall assume responsibility for delays incurred due to rejected items. No installation of material concerned shall be made until such written approval has been obtained. Approval of materials and equipment shall in no way obviate compliance with the Contract Documents. Each item proposed shall be referenced to the applicable Section, Page, and Paragraph of Division 26. For each item proposed, give name of manufacturer, trade name, catalog data, and performance data.
- B. Equipment Layout Drawings: Submit "Equipment Layout Drawings" for each equipment room or area containing equipment items furnished under this Division. Layout Drawings shall consist of plan view of room, to scale, showing projected outlines of all equipment, complete with dotted line indication of all required clearances including all those needed for removal or service. Location of all conduit and pull boxes shall be indicated.
- C. Service Manuals: Refer to Submittal Section. Indexed Service Manuals shall be submitted which shall include test reports, service instructions, and renewal parts lists of all equipment.
1. Submission and Information: Service Manuals shall be submitted for approval at least 30 days before final inspection. The following information together with any pertinent data, shall be included in Service Manual:
- a. Renewal part numbers of all replaceable items.
  - b. Manufacturer's cuts and rating data.
  - c. Serial numbers of all principal pieces of equipment.
  - d. Supplier's name, address, and phone number.

- e. Final settings for all breakers, relays, and control devices
  - f. Copies: Four (4) copies of approved Service Manual shall be delivered on or before date required.
- D. Record Drawings: Prepare and submit in accordance with requirements. Contractor shall make notations, neat and legible, daily as the work proceeds. Drawings shall be available for inspection at all times and kept at the job site. All buried conduit and/or indicated future connections outside any building shall be located both by depth and by accurate measurement from a permanently established landmark such as a building or structure.
- E. Seismic Calculation: Refer to Article 3.01 herein.
- F. Spare Parts: Conform to the Submittal Section. Deliver following spare parts to Owner and obtain receipts. Submit at same time as Operating Instructions:
- 1. Spare fuses; 1 set for each combination fuse breaker.
  - 2. Spare pilot light lamps of each type used on project, in quantity of 10%, but not less than 2%.
  - 3. Overload heater elements; 2 sets for each size used on project.
- G. Special Tools: If any part of the equipment furnished under Division 26 requires a special tool for assembly, adjustment, resetting, or maintenance thereof and such tool is not readily available on the commercial tool market, it shall be furnished with the equipment as a standard accessory and delivered to the Owner.
- H. Maintenance Paint: One (1) can of touch-up paint shall be delivered to Owner for each different color factory finish which is to be the final finished surfaces of the product.

#### 1.04

##### DRAWINGS:

- A. Diagrammatic Drawings: For purposes of clarity and legibility, drawings are essentially diagrammatic although size and location of equipment is drawn to scale wherever possible, Contractor shall make use of data in all the Contract Documents and verify information at building site.
- B. Routing of Conduit and Piping: The drawings indicate required size and termination of conduits and raceways. It is not intent to indicate all necessary offsets and it shall be the responsibility under this Division to install conduit in such a manner as to conform to structure, avoid obstructions, preserve headroom, keep openings and passageways clear, and make all equipment requiring inspection, maintenance and repair accessible without extra cost to the Owner.
- C. Coordination with Other Trades: Check with other Divisions of the Specifications so that no interference shall occur and in order that elevations may be established for the work. Installed work which interferes with the work of other trades shall be removed and rerouted at the discretion of the Architect.

#### 1.05

##### DAMAGE AND REPAIRS:

- A. Emergency Repairs: Owner reserves the right to make temporary repairs as necessary to keep equipment in operating condition without voiding Contractor's warranty or relieving Contractor of his responsibility during warranty period.
- B. Responsibility for Damage: Contractor shall be responsible for damage to grounds, buildings, or equipment due to work furnished or installed under this Division 26.

1.06 PROTECTION, CARE, AND CLEANING:

- A. Protection: Provide adequate protection for finished parts of materials and equipment against physical damage from any cause during progress of work and until final completion. Sensitive electrical equipment shall not be installed until major construction is completed.
- B. Care: During entire construction, properly cap all lines and equipment to prevent entrance of sand and dirt. Protect equipment against moisture, plaster, cement, paint or work of other trades by covering with polyethylene sheets.
- C. Cleaning: After installation is completed, clean all systems as follows in addition to requirements specified:
  - 1. Field Painted Items: Clean exterior of conduits, raceways, piping and equipment exposed in completed structure; removing all rust, plaster, cement and dirt by wire brushing. Remove grease oil and similar materials by wiping with clean rags and suitable solvents.
  - 2. Factory Finished Items: Remove grease and oil on all factory finished items such as cabinets and controllers, and leave surfaces clean and polished.
- D. Connection: Prior to energizing, check all electrical connection hardware and torque where necessary.

PART 2- PRODUCTS

- 2.01 PRODUCTS: Products and materials shall be as specified in the pertinent Sections of Division 26.
- 2.02 MATERIALS AND EQUIPMENT: Wherever possible, all materials and equipment used in installation of this work shall be of same manufacturer throughout for each class of material or equipment. Materials shall be new and bear UL label, wherever subject to such approval. Comply with ANSI, IEEE and NEMA standards, where applicable.

PART 3 - EXECUTION

- 3.01 SEISMIC REQUIREMENTS: Electrical equipment for emergency systems shall be braced to withstand the lateral forces that result from earthquakes. Under Work of Division 26, submit seismic calculations stamped and signed by a registered California structural engineer confirming size, number, and location of required anchoring hardware. Electrical equipment vendors shall furnish weights together with dimensions and the center of gravity location for all emergency electrical equipment for this purpose.

- 3.02 GENERAL LATERAL BRACING REQUIREMENTS: As shown on Drawings. Additional bracing requirements shall conform to specific requirements shown on Drawings or in other Sections of Division 26. Anchorages for equipment subject to thermal expansion and movement shall conform to manufacturer's recommendation and intent of general bracing requirements. When general and specific bracing requirements enumerated above are in conflict with referenced standards, the most stringent requirements shall govern.
- 3.03 EXCAVATION AND BACKFILL: Perform all excavation and back fill required to install Work of Division 26, both inside and outside. Perform all excavation and backfilling in accordance with Division 2.
- A. Excavation: Bury conduits outside building to a depth of not less than 24" (or as required by National Electrical Code) below finish grade, unless noted otherwise.
  - B. Backfilling: Do not backfill until after final inspection and approval of conduit installation by all legally constituted authorities and recording of the buried items on the Record Drawings.
- 3.04 CUTTING AND PATCHING:
- A. Cutting of Existing Structural Work: Holes in existing slabs and concrete walls shall be cored to the minimum size required. The Contractor shall submit Drawings showing dimensioned sizes and locations for all such holes to Architect for approval before cutting. Where required for conduit installation, slabs on grade shall be saw-cut to minimum required width; submit cutting Drawings to the Architect for approval before cutting.
  - B. Patching: Holes or chases shall be patched to match adjacent surfaces.
- 3.05 CONCRETE WORK: Concrete construction required for the Work of Division 26 shall be provided under the Work of Division 26.
- 3.06 PAINTING: Finish painting of electrical equipment will be as specified in Division 9, unless equipment is herein specified to be furnished with factory applied finish coats. Equipment to be field painted shall be furnished with a factory applied prime coat.
- A. Touch-Up: If factory finish on any equipment furnished under Division 26 is damaged in shipment or during construction of building, the equipment shall be refinished by Contractor to satisfaction of Architect.
  - B. Concealed Equipment: Uncoated cast-iron or steel that will be concealed, or will not be accessible when installations are completed, shall be given one heavy coat of black asphalt before installation.
- 3.07 OPERATING INSTRUCTIONS: Contractor to provide services of an experienced Engineer to instruct Owner in operation of entire installation. Instructional period shall be during normal work day hours. This instruction period may be simultaneous with compliance tests.
- 3.08 COMPLIANCE TESTS: Conduct such tests of all portions of installation as may be necessary to ensure full compliance with the Drawings and Specifications. Tests shall be made in the presence of the Owner. Costs of test shall be borne by Contractor and Contractor shall provide all instruments, equipment, labor and materials to complete

all the tests. Tests may be required on any item between installation of Work and the end of 1 year warranty period. Should these tests develop any defective materials, poor workmanship or variance with requirements of Specifications, Contractor shall make any changes necessary and remedy any defects at his expense.

A. All Feeders: Measure and record as follows:

1. 600-volt conductors shall be tested with 500-volt megger to ground on each phase. megger to be on test for one minute before any readings are taken. The minimum values on all feeders shall be 100,000 OHMS.
2. Copies of the certified test readings shall be transmitted to Owner.

3.09 SYSTEM ACCEPTANCE:

A. Final Review: The Contractor shall request a final review prior to system acceptance after:

1. Completion of installation of all systems required under the Contract Documents.
2. Submission and acceptance of operating and maintenance data.
3. Completion of identification program.

B. Acceptance: Is contingent on:

1. Completion of final review and correction of all deficiencies.
2. Satisfactory completion of acceptance tests demonstrating compliance with all performance and technical requirements of Contract Documents.
3. Satisfactory completion of training program and submission of manuals and Drawings required by Contract Documents.

3.10 PRELIMINARY OPERATION: The Owner reserves the right to operate portions of the electrical system on a preliminary basis without voiding the warranty or relieving the Contractor of his responsibilities.

3.11 CLEAN-UP: Conform to the Submittal Section. Upon completion and at other times during progress or Work, when required, remove all surplus materials, rubbish, and debris resulting from Work of Division 26.

END OF SECTION

## SECTION 1013

### MINOR ELECTRICAL DEMOLITION FOR REMODELING

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. Electrical demolition.

#### PART 2 - PRODUCTS

##### 2.01 MATERIALS AND EQUIPMENT

- A. Materials and equipment for patching and extending work: As specified in individual Sections.

#### PART 3 - EXECUTION

##### 3.01 EXAMINATION

- A. Verify field measurements and circuiting arrangements are as shown on Drawings.
- B. Verify that abandoned wiring and equipment serve only abandoned facilities.
- C. Demolition Drawings are based on casual field observation and existing record documents. Report discrepancies to Owner and Architect/Engineer before disturbing existing installation.
- D. Beginning of demolition means installer accepts existing conditions.

##### 3.02 PREPARATION

- A. Disconnect and make safe all electrical systems in walls, floors, and ceilings scheduled for removal.
- B. Coordinate utility service outages with Utility Company and Owner's representative.
- C. Provide temporary wiring and connections to maintain required existing systems in service during construction. When work must be performed on energized equipment or circuits, use personnel experienced in such operations.
- D. Existing Electrical Service: Maintain existing system in service until new system is complete and ready for service. Disable system only to make switchovers and connections. Obtain permission from Owner at least 72 hours before partially or

completely disabling system. Minimize outage duration. Make temporary connections to maintain service in areas adjacent to work area when outage affects business operation.

- E. Existing Fire Alarm System: Maintain existing system in service until new system is accepted. Disable system only to make switchovers and connections. Notify Owner and local fire service at least 72 hours before partially or completely disabling system. Minimize outage duration. Make temporary connections to maintain service in areas adjacent to work area.
- F. Existing Telephone System: Maintain existing system in service until new system is complete and ready for service and new system is accepted. Disable system only to make switchovers and connections. Notify Owner and Telephone Utility Company at least 72 hours before partially or completely disabling system. Minimize outage duration. Make temporary connections to maintain service in areas adjacent to work area.
- G. Existing Security System: Maintain existing system in service until new system is complete and ready for service and new system is accepted. Disable system only to make switchovers and connections. Obtain permission from the Owner and security company at least 72 hours before partially or completely disabling system. Minimize outage duration. Make temporary connections to maintain service in areas adjacent to work area.

### 3.03 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK

- A. Demolish and extend existing electrical work under provisions of this Section.
- B. Remove, relocate, and extend existing installations to accommodate new construction.
- C. Remove abandoned wiring to source of supply and re-label devices as spares.
- D. Remove exposed abandoned conduit, including abandoned conduit above accessible ceiling finishes. Cut conduit flush with walls and floors, and patch surfaces.
- E. Disconnect abandoned outlets and remove devices. Remove abandoned outlets if conduit servicing them is abandoned and removed. Provide blank cover for abandoned outlets which are not removed.
- F. Disconnect and remove abandoned panelboards and distribution equipment.
- G. Disconnect and remove electrical devices and equipment serving utilization equipment that has been removed.
- H. Disconnect and remove abandoned luminaires. Remove brackets, stems, hangers, and other accessories.
- I. Disconnect and remove abandoned conduit.
- J. Repair adjacent construction and finishes damaged during demolition and extension work.
- K. Maintain access to existing electrical installations which remain active. Modify installation or provide access panel as appropriate.

L. Extend existing installations using materials and methods compatible with existing electrical installations, and in compliance with new project specifications.

M. Modify existing as-built drawings to note changes.

3.04 CLEANING AND REPAIR

A. Clean and repair existing materials and equipment which remain or are to be reused.

B. Panelboards: Clean exposed surfaces and check tightness of electrical connections. Replace damaged circuit breakers and provide closure plates for vacant positions. Provide typed circuit directory showing revised circuiting arrangement.

C. Luminaires: Remove existing luminaires for cleaning. Use mild detergent to clean all exterior and interior surfaces; rinse with clean water and wipe dry. Replace lamps, ballasts, and broken electrical parts.

3.05 INSTALLATION

A. Install relocated materials and as required by this section and Owner's representative.

END OF SECTION

**CONDUIT SYSTEMS****1.0 GENERAL**

- A. The general provisions and Channel Island Harbor Parking Lot Rehabilitation for Kiddie Beach HD 24-01 apply to this section.

**1.1 WORK INCLUDED**

- A. Conduits; including:
1. Rigid steel conduit and PVC coated RGS
  2. Electrical metallic tubing (EMT).
  3. Polyvinyl chloride conduit (PVC).
  4. Flexible metal conduit.
  5. Liquid-tight flexible metal conduit.

**1.2 DEFINITION**

- A. Conduit: This term shall be construed to mean conduit and conduit fittings; and tubing and tubing fittings.

**2.0 PRODUCTS****2.1 MATERIAL AND FABRICATION - ALL MATERIALS SHALL BE MANUFACTURED IN THE USA.**

- A. Rigid Steel Conduit: Hot-dipped galvanized or sherardized including the threads, manufactured in accordance with ANSI C80.1 and UL6.
1. Threaded, hot-dipped galvanized or sherardized fittings manufactured in accordance with ANSI C80.4.
  2. PVC Coated RGS in exposed to the environment areas
- B. Electrical Metallic Tubing: Manufactured in accordance with ANSI C80.3 and UL 797.
1. Provide compression fittings in walls, ceiling spaces or exposed construction areas.
  2. Provide compression (water tight) fittings in all areas.
- C. Polyvinyl Chloride Conduit: Schedule 80, manufactured in accordance with ANSI C33.91, UL 651, and NEMA TC-2.
1. Cemented type fittings of the same manufacturer as the conduit.

- D. Flexible Metal Conduit: Hot-dipped galvanized steel, manufacturer in accordance with UL 1.
  - 1. Squeeze type, malleable iron, cadmium plated, straight and angle connectors for all sizes and twist-in connectors for 3/4-inch flexible metal conduit.
- E. Liquid-Tight Flexible Conduit: Hot-dipped galvanized with liquid-tight vinyl jacket.
  - 1. Liquid-tight fittings.

### 3.0 EXECUTION

#### 3.1 USE

- A. EMT for all work except exposed to the environment.
- B. PVC coated Rigid steel in areas where conduit is exposed to the environment or when exposed conduit could be subject to physical damage
- C. PVC Conduit:
  - 1. Schedule 40 for runs below grade in direct contact with earth.
- D. Where 3/4-inch conduit runs are concealed in walls or ceilings and these runs are through wood studs and wood joists, flexible steel conduit may be used up to a maximum length of 6'0".
- E. All risers shall be PVC coated RGS with bushings, except where concealed then schedule 80 PVC.
- H. In concrete or below grade use conduit not smaller than 1 inch. Maximum size in concrete slab: 1 inch. Run larger sizes under slab. Conduit above grade not smaller than 3/4".

#### 3.2 INSTALLATION

- A. Provide conduit support and bracing in accordance with the latest published SMACNA guidelines.
- B. Perform excavating, trenching, backfilling, and compacting per HD 24-01 and the following:
  - 1. all trenches shall be 24" to top of conduit from finished grade
  - 2. all trenches shall have tracer/warning tape above (9") conduit
  - 3. all trenches shall be backfilled with one sack slurry mix to either asphalt or concrete at finished surface.
  - 4. finished surface shall match new work and asphalt shall be a minimum of 6 inches deep and concrete 6" deep with concrete doweled into existing concrete with epoxy (#3 bar) on 12 inch centers and 6 inch embed on center of interface. Asphalt shall be hot tacked if not new overall layment.
- C. Minimum cover for runs below finished grade outside buildings: 24 inches
- D/E. Protect inside of conduit from dirt and rubbish during construction by capping all openings with plastic caps intended for the purpose.

- F. Provide conduit bodies for exposed conduit runs at junctions, bends or offsets where required. Do not use elbows or bends around outside corners of beams, walls or equipment. Make conduit body covers accessible. All exposed metal conduit shall be pvc coated RGS.
- G. Make conduit field cuts square with saw and ream out to full size. Shoulder conduits in couplings.
- H. Where conduit is to remain empty, install polypropylene or nylon pull-line 3/16" minimum diameter from end to end with tag at each end designating opposite terminations.
- I. Run conduit parallel and at right angle to building lines, when visible in finished construction.
- J. Cap conduits indicated to be stubbed-out underground using glued-on PVC caps intended for this purpose.
- K. Install a coupling flush with the floor on all conduits stubbed up through floors on grade.
- L. Concrete Wall or Slab Penetrations: All core drilling, sleeves, blockouts or other penetrations must be approved by the Structural Engineer prior to installation.
  - 1. Space sleeves and core drills to insure a minimum dimension of 3 times the nominal trade diameter of the largest adjacent conduit between sleeves or core drills.
  - 2. Use block outs for concentrations of conduits in a confined area.
- M. Do not penetrate walls with flexible conduit where subject to physical damage. Use recessed box with extension ring for transition from interior to exterior of wall.

**END OF SECTION**

## SECTION 1015

### CONDUCTORS

#### PART 1 - GENERAL

##### 1.01 WORK INCLUDED

- A. Conductors; for power, lighting, sound, communication and control, including conductors for general wiring, flexible cords and cables, and ground conductors.

##### 1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Submittals: Section 260000.

#### PART 2 - PRODUCTS

##### 2.01 MATERIAL AND FABRICATION

- A. Conductors for General Wiring: Thermoplastic insulated rated for 600V manufactured in accordance with UL 83.
  - 1. Provide 3/4 hard drawn copper conductors. Provide solid conductor for #12 AWG and smaller. Provide stranded conductors for #10 AWG and larger.
- B. Conductor Connectors for General Wiring:
  - 1. Sizes No. 14 to No. 8: Splice with insulated spring wire connectors.
    - a) Ideal No. 451, 455 and 453.
    - b) Minnesota Mining: Types Y, R, G, and B.
    - c) Buchanan No. B1, B2 and B4.
  - 2. Size No. 6 or Larger, Copper: Splice and terminate with compression or pressure type connectors and terminal lugs.
- C. Provide connector sealing packs for all area lighting and exterior box splices which require complete protection from dampness and water.
  - 1. Scotch Lok No.'s 3576, 3577 and 3578, by 3M Company.

#### PART 3 - EXECUTION

##### 3.01 USE

- A. Conductors for General Wiring:
  - 1. Minimum 75 degrees C temperature rated insulation on conductors, except use minimum 90 degrees C temperature rated insulation on conductors in conduits exposed on roof, or where required due to ambient temperature.
  - 2. Stranded conductors at motors, audio video and other applications where subject to vibration.
  - 3. Minimum size conductors for power and lighting #12 AWG, except where noted.
  - 4. Minimum size conductors for control circuits #14 AWG stranded with THHN/THWN insulation.
- B. Use flexible cords and cables for connection of special equipment as indicated. Length not to exceed 72 inches.
- C. Ground Conductors:
  - 1. Provide an insulated green ground conductor for all branch circuit wiring where indicated.
  - 2. Bare copper conductor may be used.
    - a) Install ground conductors in all non-metallic conduits as required by code. Install ground conductors in all motor branch circuits and all feeders. Where ground conductor size is not indicated, provide size as required for an equipment ground conductor by the National Electrical Code.
    - b) Install ground conductors in all flexible metal conduits.
- D. Install XHHW – 2, 90°C copper conductors for all underground installations unless noted otherwise on the plans.
- E. Install for all dimmers, stranded THHN/THWN – 2 copper 90°C conductors with dedicated neutrals.

### 3.02 INSPECTION

- A. Check conduit system for damage and loose connections, replace damaged sections.
- B. Check for caps at conduit openings. Make sure that inside of conduit is free of dirt and moisture.
- C. Pull mandrel, one size smaller than the conduit, through entire length of all underground conduits prior to conductor installation.

### 3.03 INSTALLATION

A. Conductors for General Wiring:

1. Color code conductors insulation as follows:

CONDUCTOR	SYSTEM 208Y/120	VOLTAGE 480Y/277
Phase A	Black	Brown
Phase B	Red	Orange
Phase C	Blue	Yellow

2. For conductors #6 AWG or larger, permanent plastic colored tape may be used to mark conductor in lieu of coded insulation. Tape shall cover not less than 2 inches of conductor insulation within enclosure.
- a) Provide color tape on each end and at all terminal points and splices on wire enclosed in conduit.
- b) Provide color tape every 3 feet on wire not enclosed in a listed wireway.
3. When pulling conductors, do not exceed manufacturer's recommended values.
4. Use polypropylene or nylon ropes for pulling conductors.

B. Insulate splices with plastic electrical tape: Scotch No. 33+, Tomic No. 1T, or equal.

C. Terminate all control wires with terminal lugs on terminal boards not designed with pressure plates. If splices are needed, use same procedure, installing a terminal board in a junction box for protection.

D. All splices or connections shall be compression type Thomas & Betts or Burndy, no split bolt connections are allowed.

3.04 IDENTIFICATION

A. Feeders: Identify with the corresponding circuit designation at over-current device and load ends, at all splices and in pull boxes.

B. Branch Circuits: Identify with the corresponding circuit designation at the over-current device and at all splices and devices.

C. Control Wires: Identify with the indicated number and/or letter designation at all terminal points and connections.

D. Alarm and Detection Wires: Identify with the indicated wire and zone numbers at all connections, terminal points, and coiled conductors within cabinets.

E. Conductors Terminated By Others: Indicate location of opposite end of conductor, i.e., Pull Box-Room 101.

- F. For identification of conductors, use heat shrinkable white marking sleeves such as Brady Permasleeve with type written identification.
- G. Circuit designation is construed to mean panel designation and circuit number, i.e., LA-13.

END OF SECTION

## SECTION 1016

### ELECTRICAL BOXES

#### PART 1 - GENERAL

##### 1.01 WORK INCLUDED

- A. Boxes; including:
  - 1. Outlet boxes.
  - 2. Pull and junction boxes.
  - 3. Cabinets.

##### 1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Submittals: Section 260000.

#### PART 2 - PRODUCTS

##### 2.01 MATERIAL AND FABRICATION

- A. Outlet Boxes:
  - 1. Pressed Steel Boxes: Knockout type, hot-dipped or electro-plate galvanized.
  - 2. Cast Iron Boxes: Hot-dipped or electro-plate galvanized with threaded hubs.
  - 3. Cast Iron Conduit Bodies: Hot-dipped or electro-plate galvanized with threaded hubs.
  - 4. Cast copper free aluminum conduit bodies with threaded hubs.
  - 5. Covers for Pressed Steel Boxes: Hot dipped or electro-plate galvanized.
  - 6. Outlet boxes manufactured in accordance with UL 514.
- B. Pull and Junction Boxes:
  - 1. Sheet steel, hot-dipped or electro-plate galvanized, or prime coated and a final coat of manufacturer's standard enamel or lacquer finish. Manufactured in accordance with UL 50.
    - a) Where exposed to weather, provide raintight hubs for conduits entering the boxes, top and sides only.

2. Floor Boxes:
    - a) Single gang, similar to Hubbell #B-2536.
    - b) Covers:
      - 1) Combination, similar to Hubbell #S-2525.
      - 2) Duplex receptacle, similar to Hubbell #S-3925.
    - c) Carpet flange, similar to Hubbell #S-3075 thru #S-3079.
    - d) Hubs: Provide hubs as required to suit the conduit arrangement.
  3. Pre-Cast Concrete Pull Boxes: As manufactured by Jensen Pre-Cast or Utility Vault and shown on drawings.
  4. High impact resistant PVC boxes: As manufactured by Carlon, Sedco, or R & G Sloan.
- C. Cabinets: Sheet metal, prime coat and final coat of manufacturer's standard enamel or lacquer finish. Manufactured in accordance with UL 50.
1. Control Cabinet: NEMA 1 enclosure, door with butt hinges and flush handle latches.
    - a) Provide with removable steel back panel.
  2. Terminal Cabinets: NEMA 1 enclosure, door with concealed hinges and spring catch type flush cylinder locks. Key locks alike, provide two keys with each lock.
  3. Provide engraved plastic nameplates with 1/2" minimum height letters indicating designation of control and terminal cabinets as shown on the drawings.
    - a) Secure nameplates with at least two screws or rivets. Cementing and adhesive installation not acceptable.

## PART 3 - EXECUTION

### 3.01 USE

#### A. Outlet Boxes:

1. Ceiling Outlet Boxes: Not less than 4" octagonal by 2" deep.
2. FDD cast iron or cast aluminum device boxes and conduit bodies with metal covers for exposed conduit installation. Provide gasket for covers in wet areas.

3. Intercom, Microphone and TV Outlet Boxes: Not less than 4-11/16" square x 2-1/8" deep.
4. Provide floor boxes with quantity of gangs as required for power, communication or control as indicated. Use boxes with barriers where required. Provide carpet flanges in carpeted areas.

B. Pull and Junction Boxes:

1. Use sheet steel boxes NEMA Type 1 for indoor and NEMA Type 3R for outdoor installation, except as follows.
2. Use pre-cast concrete boxes for boxes flush in finish grade where requiring a nominal capacity greater than 144 cubic inches, where located in vehicular traffic areas, or where indicated.
3. Use polyvinyl chloride (PVC) boxes flush in finish grade when the nominal internal volume is less than or equal to 144 cubic inches or where indicated.
4. Use cast iron boxes for boxes flush in slab on grade.

3.02 INSTALLATION

- A. Provide 3/8" fixture studs in wall bracket and ceiling boxes.
- B. Provide covers suitable for the fixtures or devices used.
- C. Make outlet box covers flush with finished surfaces.
- D. Close unused open knockouts with knockout seals.
- E. Provide 1" deep plaster rings on recessed outlet boxes installed in areas where concrete will be exposed after construction is complete.
- F. Where boxes are concealed in exposed concrete unit masonry, use square cornered types or boxes fitted with rings of sufficient depth for the box to be recessed completely within cavity of block or tile. Install box to insure that ring fits an opening sawed out of the masonry, so that no mortar is required to fill between ring and construction.
- G. Provide a 6" base of compacted crushed rock under pre-cast concrete pull boxes.
- H. Adjust floor boxes so they are level with top of finished floors.
- I. Provide pull boxes and junction boxes in all branch circuit and feeder runs as indicated. Do not provide pull boxes unless they are indicated or required by the Electrical Code.

3.03 IDENTIFICATION

- A. Junction Boxes: Use permanent black marker, 2" high lettering, and on each cover plate indicate the power source and circuits contained within that junction box.

END OF SECTION

SECTION 1017

WIRING DEVICES

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Wiring devices.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Identification: Section 260030.
- B. Boxes: Section 260130.

1.03 SUBMITTALS

- A. In accord with Section 260010.

1.04 DEFINITION

- A. Wiring devices: This term includes all wall switches, pushbuttons, receptacles, and plates used for general purpose installation.

PART 2 - PRODUCTS

2.01 MATERIAL AND FABRICATION

- A. Wall switches:

Quiet toggle type, 20A – 120/277 VAC rated, with terminal screws to take up to No. 10 AWG conductors:

	SPST	DPST	3-WAY	SPST KEY SWITCH LOCK	4-WAY
Arrow-Hart	1991-I	1992-I	1993-I	1991-L	1994-I
Bryant	4901-I	4902-I	4903-I	4901-L	4904-I
General Electric	GE5951-2	GE5952-2	GE5953-2	GE5951-OL	GE5954-2
Hubbell	1221-I	1222-I	1223-I	1221-L	1224-I
Pass & Seymour/ Legrand	20AC1-I	20AC2-I	20AC3-I	20AC1-L	20AC4-I

Momentary contact type, 20A-120/277V, two-circuit, three-position, center off:

Arrow-Hart	1995-I
Bryant	4921-I
General Electric	GE5935-2
Hubbell	1557-I
Pass & Seymour/Legrand	1250-I

Passive infrared wall switch sensors: Ivory, 180° field of view, adjustable time out and ambient light, 1200 sq. ft. Coverage, 120 VAC, 60 Hz, 1500W. Maximum load, incandescent and fluorescent. As manufactured by Hubbell No. AT1201 or Owner- approved equivalent by Leviton or Pass & Seymour.

Fan speed controllers: AC unit rated 15A - 120V used to control up to twelve 56 in./52 in./48 in. ceiling fans or up to twenty 42 in. fans on a single circuit. Rinaudo's Reproductions No. 22394.

B. Passive infrared motion switching system:

1. Ceiling mount sensor, white, 500 sq. ft. coverage, requires control unit. Hubbell No. ATD500CRP.
2. Ceiling mount sensor, white, 2000 sq. ft. coverage, ceiling height dependent, requires control unit. Hubbell No. ATD2000CRP.
3. Ceiling or wall mount sensor, white, 1000 sq. ft. coverage, requires control unit. Hubbell No. ATD1000CRP.
4. Ceiling or wall mount hallway sensor, white, covers area 75 ft. long by 20 ft. wide, requires control unit. Hubbell No. PIR90HW1.
5. Low-voltage control unit, 120VAC, controls one to four sensors. Mount in 4 in. x 4in. enclosure. Hubbell No. CU120A.
6. Relay, 120VAC coil, used when load to be controlled exceeds capacity of a single circuit. Hubbell No. AAR

C. Receptacles, caps, and connectors:

1. 15A-125V, NEMA 5-15, parallel slot type with grounding pin:

	DUPLEX	SINGLE	GFI
Arrow-Hart	5252-I	5261-I	GF5242-I
Bryant	5252-I	5261-I	GFR52FT
General Electric	5252-2	5261-2	TGTR115F
Hubbell	5252-I	5251-I	GF5252-I
Pass & Seymour/Legrand	5252-I	5261-I	1591-SHG

2. 15A-250V, NEMA 6-15, straight blade grounding type:

	RECEPTACLE	CAP
Arrow-Hart	5661-I	6666
Bryant	5661-I	5666-N
General Electric	GE4069-2	GED0611
Hubbell	5661-I	5666-C
Pass & Seymour/Legrand	5662-I	5666-X

3. 15A-125V, NEMA L5-15, locking type with ground:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	4700	4721	4731
Bryant	4700	4721-NSY	4732-NSY
General Electric	GL4700	GLD0511	GLD0513
Hubbell	4700	4720-C	4729-C
Pass & Seymour/Legrand	4700	L515-P	L515-C

4. 20A-125V, NEMA 5-20, straight blade grounding type:

	RECEPTACLE	CAP
Arrow-Hart	5361-I	5362-I
Bryant	5361-I	5362-I
General Electric	GE4102-2	GE4108-2
Hubbell	5361-I	5362-I
Pass & Seymour/Legrand	5361-I	5362-I

5. 20A-125V, NEMA L5-20, two-pole, three-wire locking type, with ground:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	6200	6202	6204
Bryant	70520-FR	70520-NP	70520-NC
General Electric	GL0520	GLD0521	GLD0523
Hubbell	2310-A	2311	2313
Pass & Seymour/Legrand	L520-R	L520-P	L520-C

6. 20A-125V, NEMA 5-20, two-pole, three-wire, straight blade isolated grounding type receptacle:

	DUPLEX	SINGLE
Arrow-Hart	IG5362	IG5361
Bryant	5362-IG	5361-IG
General Electric	GE8300-IG	GE8310-IG
Hubbell	IG-5362	IG-5361
Pass & Seymour/Legrand	IG-6300	IG-5361

7. 20A-125 VAC, two-pole, three-wire, NEMA 5-20, straight blade, specification grade, ivory color, ground fault circuit interrupter receptacle (GFCI), rated for feed-through wiring, with LED indicator light:

	GFCI RECEPTACLE
Hubbell	GF-5362I
Pass & Seymour	2091-S-L-I
Leviton	6898-I

8. 20A-125/250V, NEMA 14-20, three-pole, four-wire straight blade grounding type:

	RECEPTACLE	CAP
Arrow-Hart	5759	5757
Bryant	-	-
General Electric	GE1420	GED1421
Hubbell	8410	8411-C
Pass & Seymour/Legrand	L1420-R	L1420-P

9. 20A-250V, NEMA 6-20, two-pole, three-wire straight blade grounding type:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	8510	6866	6869
Bryant	5461	5466N	5469N
General Electric	GE4182	GED0621	GED0623
Hubbell	5461	HBL5466-C	HBL5469-C
Pass & Seymour/Legrand	5871	5466-X	5469-X

10. 20A-120/208V, NEMA L21-20, four-pole, five-wire locking and grounding type:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	6470	6472	6474
Bryant	72120-FR	72120-NP	72120-NC
General Electric	GL2120	GLD2121	GLD2123
Hubbell	2510A	2511	2513
Pass & Seymour/Legrand	L2120R	L2120P	L2120C

11. 20A-250V, NEMA L6-20, two-pole, three-wire locking and grounding type:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	6210	6212	6214
Bryant	70620FR	70620NP	70620NC
General Electric	GL0620	GLD0621	GLD0623
Hubbell	2320A	2321	2323
Pass & Seymour/Legrand	L620-R	L620-P	L620-C

12. 20A-480V, NEMA L16-20, three-pole, four-wire locking type:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	6430	6432	6434
Bryant	71620-FR	71620-NP	71620-NC
General Electric	GL1620	GLD1621	GLD1623
Hubbell	2430A	2431	2433
Pass & Seymour/LeGrand	L1620-R	L1620-P	L1620-C

13. 30A-125V, NEMA 5-30, two-pole, three-wire straight blade grounding type:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	5716N	5717N	6716N
Bryant	9530-FR	9630-RP	-
General Electric	GE4138-3	GED0531	GED0533
Hubbell	9308	9309	-
Pass & Seymour/LeGrand	3802	5921	-

14. 30A-125V, NEMA L5-30, two-pole, three-wire grounding and locking type:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	6330	6332	6334
Bryant	70530-FR	70530-NP	70530-NC
General Electric	GL0530	GLD0531	GLD0533
Hubbell	2610	2611	2613
Pass & Seymour/LeGrand	L530-R	L530-P	L530-C

15. 30A-125/250V, NEMA 14-30, three-pole, four-wire straight blade grounding type:

	RECEPTACLE	CAP
Arrow-Hart	5744N	5746N
Bryant	9430-FR	5746
General Electric	GE4191-3	GED1431
Hubbell	9430	9431
Pass & Seymour/LeGrand	5740	5741-AN

16. 30A-125/250V, NEMA L14-30, three-pole, four-wire grounding and locking type:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	6510	6512	6514
Bryant	71430-FR	71430-NP	71430-NC
General Electric	GL1430	GLD1431	GLD1433
Hubbell	2710-A	2711	2713
Pass & Seymour/LeGrand	L1430-R	L1430-P	L1430-C

17. 30A-250V, NEMA L6-30, two-pole, three-wire locking blade grounding type:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	6340	6342	6344
Bryant	70630-FR	70630-NP	70630-NC
General Electric	GL0630	GLD0631	GLD0633
Hubbell	2620-A	2621	2623
Pass & Seymour/LeGrand	L630-R	L630-P	L630-C

18. 30A-250V, NEMA 6-30, two-pole, three-wire straight blade grounding type:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	5700N	5701N	6700N
Bryant	9630-FR	9630-ANP	-
General Electric	GE4139-3	GE4328-9	GE4373-9
Hubbell	9330	9331	-
Pass & Seymour/LeGrand	3801	5931	-

19. 50A-208V (50A-600V), three-pole, four-wire locking type with ground:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	3769	3765	3764
Bryant	3769	3765	3764
General Electric	LD3769	LD3765	LD3764
Hubbell	3769	3765-C	3764-C
Pass & Seymour/LeGrand	3769	3765	3764

20. 50A-125/250V, NEMA 15-50, three-pole, four-wire grounding straight blade type:

	RECEPTACLE	CAP
Arrow-Hart	5754N	5745N
Bryant	9450-FR	5745
General Electric	GE4181-3	GE4180-3
Hubbell	9450	9451
Pass & Seymour/LeGrand	5750	5751-AN

21. 50A-125/250V, three-pole, four-wire grounding locking blade type:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	CS6369	CS6365	CS6364
Bryant	CS6369	CS6365	CS6364
General Electric	-	-	-
Hubbell	CS6369	CS6365	CS6364
Pass & Seymour/LeGrand	-	-	-

22. 50A-250V, NEMA 6-50, two-pole, three-wire grounding straight blade type:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	5709N	5710N	6709N
Bryant	9650-FR	9650-RP	-
General Electric	GE4141-3	GED0651	GED0653
Hubbell	9367	9368	-
Pass & Seymour/Legrand	3804	3869	-

23. 60A-120/208V, three-phase, 60 Hz, five-pole, five-wire, watertight, with threaded cap:

	BOX	ANGLE ADAPTER	RECEPTACLE BODY	COMPLETE ASSEMBLY
Hubbell	26401	26404	26520	-
Crouse-Hinds	-	-	-	Area-6575
Russell Stoll	-	-	-	DS6516-FRAB-

24. 60A-480V, NEMA L16-20, three-pole, four-wire locking type:

	RECEPTACLE	CAP	CONNECTOR
Arrow-Hart	-	-	-
Bryant	-	-	-
General Electric	-	-	-
Hubbell	HBL 26410	HBL 26402	HBL 26418
Pass & Seymour/Legrand	-	-	-

- D. Safety receptacle: 15A-125V, NEMA 5-15, straight blade grounding safety receptacle, Hubbell No. SG-62H-1.

- E. Door monitoring switches:

1. General: Provide magnetic door switches (one per leaf) and key switches at specific door locations as indicated on Drawings. Refer to Electrical Drawings details for schematic installation details of door switches.
2. Magnetic contact switches: Provide concealed magnetic SPDT switches with minimum 6-ft. wire leads, Sentrol No. 1076W-06 for hollow metal doors and frames. Where necessary, provide other similar Sentrol types to suit concealed installation conditions, as approved by Owner and compatible with Owner's ride control and/or existing security system equipment. Color of switches to closely match finish or paint color of door frame.
3. Key switches: Arrow-Hart No. 1191L.

- F. Device cover plates:

1. Interior plates: Specification grade plastic, 0.1 in. thick, ivory in color, UL listed.
  - a) Plates in kitchens and restrooms to be polished stainless steel, 0.040 in. thick except in kitchens use double lift lid weatherproof gasketed plates for convenience receptacles.

- b) MATV plate: RMS No. CA-4028.
2. Exterior plates: Choose type of exterior cover plate in accord with the device location and/or manner in which device will be used. Device cover plates shall be die-cast aluminum with hinged cover, rated for respective type of use specified below, or as indicated on Drawings.
- a) Outlet box weatherproof hoods: NEMA 3R rating, gasketed, for unattended use with cover closed, padlockable latching cover to meet OSHA lockout/tagout requirements, large cord opening and UL listed. As manufactured by Hubbell, Intermatic or Leviton.
  - b) Low profile weatherproof cover: Gasketed, approved for use with cover open, self-closing hinged covers (two independent self-closing lids for duplex receptacles which are horizontally mounted), UL listed. As manufactured by Hubbell, Leviton or Pass & Seymour.
  - c) Communication outlet weatherproof hoods: NEMA 3R rating for unattended use with cover closed, two-cord openings and UL listed. As manufactured by Red Dot.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Mount switches and receptacles in vertical position in building interiors.
- B. Mount receptacles with weatherproof plates in horizontal position.
- C. Install receptacles mounted vertically so that the ground contact falls on the top position, and horizontally-mounted receptacles with neutral pole in top position.
- D. Use plastic blank plates on J-boxes in public areas.
- E. Use mechanical type door switches for load control.
- F. Install receptacles for plug in lighting fixtures within 36 in. of fixture location.
- G. Use safety type receptacles with low profile weatherproof metal covers for all convenience outlets in guest accessible areas (i.e., queue lines, waiting areas, etc.).
- H. All GFI type exterior receptacles shall be provided with weatherproof metal hoods.
- I. GFI type receptacles shall not be fed-through wire.

END OF SECTION

Wiring Devices  
26 0140-8

SECTION 1018  
SUPPORT DEVICES

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Support devices for conduit, boxes, lighting fixtures and equipment.

PART 2 - PRODUCTS

2.01

2.02 MATERIAL AND FABRICATION

- A. Hangers: Steel cadmium plated.
- B. Straps: One-hole and two-hole malleable iron, hot-dipped galvanized or steel, cadmium or zinc plated.
- C. Beam Clamps: Malleable iron, hot-dipped galvanized or cadmium plated.
- D. Channels and Fittings:
  - 1. Channels: Hot-dipped galvanized.
  - 2. Fittings: Galvanized.
- E. Anchors: Self drilling and expansion bolt types. No wood or fiber plugs or concrete nails are acceptable.

PART 3 - EXECUTION

3.01 USE

- A. Use one-hole or two-hole straps for single conduit runs on walls or ceilings.
- B. Use hangers with solid steel rods for hanging single conduits.
- C. Use formed channel trapezes for groups of two or more conduits.
- D. To fasten boxes and supports to:
  - 1. Wood: Use wood screws or screw type nails of equal holding power.

2. Brick and Concrete: Use bolts and expansion shields.
  3. Hollow Masonry Units: Use toggle bolts.
- E. Support sheet metal boxes from building structure directly or by bar hangers.
- F. Do not penetrate reinforced concrete beams with fastenings more than 1-1/2" or reinforced concrete joints with more than 3/4" fastenings to prevent contact with reinforcing steel.

END OF SECTION

## SECTION 1019

### LIGHTING FIXTURES

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Section includes:
  - 1. Lighting fixtures, including lamps, accessories and support materials.
- B. Related work:
  - 1. Submittals: Section 26 0000.

#### PART 2 - PRODUCTS

##### 2.01 MATERIAL AND FABRICATION

- A. Fixtures schedule lists one or more acceptable manufacturers for each fixture type.
- B. Provide all lighting fixtures of each type from the same manufacturer.
- C. Provide sockets for screw base lamps of plated steel, brass or bronze.
- D. All fixtures shall be LED.
- E. Flexible metal conduit systems connecting individual tandem wired lighting fixtures.
  - 1. Conductors carrying line voltage and current shall be sized in accordance with the overcurrent device protecting the circuit indicated.
  - 2. Provide a #12 AWG minimum size ground conductor.
- F. Provide electronic dimming drivers/ballasts for all fixtures.

#### PART 3 - EXECUTION

##### 3.01 INSTALLATION

- A. Provide a lighting fixture for each lighting outlet indicated.
- B. Provide recessed and semi recessed fixtures with mounting frames compatible with the ceiling and wall systems employed and secure fixture mechanically to frame.

- C. Align rows of suspended and surface mounted fluorescent fixtures to form straight lines at uniform elevations.
- D. Provide swivel ball type hangers which will allow a minimum of 45 degrees angle for fixtures indicated as pendant mounted.
- E. Make recessed fixture fit snugly against ceiling to prevent light leakage.
- F. Support suspended and surface mounted LED fixtures as follows:
  - 1. Fixtures not over 12 inches wide and not over 50 inches long, a minimum of two fastenings.
  - 2. Fixtures not over 12 inches wide and over 50 inches long, a minimum of three fastenings.
  - 3. Fixtures over 12 inches wide and not over 50 inches long, a minimum of four fastenings.
- G. Support pendant mounted LED fixtures as follows:
  - 1. Single fixtures not over 12 inches wide, a minimum of two single pendants.
  - 2. Single fixtures over 12 inches wide, a minimum of two single pendants at each end or one double pendant at each end.
  - 3. Continuous rows of fixtures not over 12 inches wide, a minimum of one single pendant for each fixture plus one for each row.
  - 4. Continuous rows of fixtures over 12 inches wide, a minimum of two single pendants or one double pendant for each fixture plus one for each row.
  - 5. Locate pendants for continuous row fixtures at each joint and each end of row.
  - 6. Rigidly fasten continuous row fixtures together with fixtures manufacturer supplied joiner.
- H. Clean existing fixtures to be reused.
- I. EMT shall not be used to support suspended fixtures of any type. Suspension shall be by means of standard hangers, where available and applicable, by rigid threaded conduit and fittings, or by rods.
- J. Where fixtures are to be mounted on, or suspended from concrete ceiling, provide cast in place inserts.
- K. Fixtures shall not be supported by outlet box cover screws alone; provide a fixture stud or “hickey” for added support.

- L. Provide a junction box at each exit light fixture indicated.
- M. Provide weatherproof boxes and connectors and liquid tight flexible conduit to each light fixture.
- N. All suspended fixtures will be installed with 1/8-inch safety cable and four Crosby clamps (two top and two bottom) to be used as a fixture support backup.

END OF SECTION

**APPENDIX K  
UNLISTED SUBCONTRACTOR'S LIST**

**UNLISTED SUBCONTRACTOR'S LIST**

Appendix K

Name of Contractor: \_\_\_\_\_

NAME OF SUBCONTRACTOR	CONTRACTOR'S LICENSE No.	BUSINESS ADDRESS	CATEGORY OF WORK

The California Department of Industrial Relations (DIR) requires that all construction contractors and tiered subcontractors performing prevailing wage work is to be registered with the DIR pursuant to Labor Code Section 1725.5.

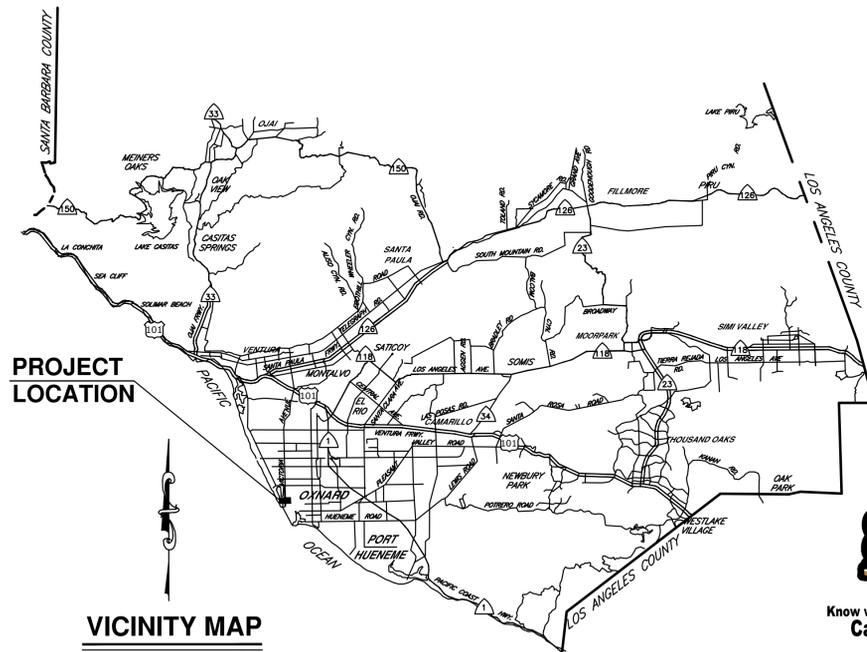
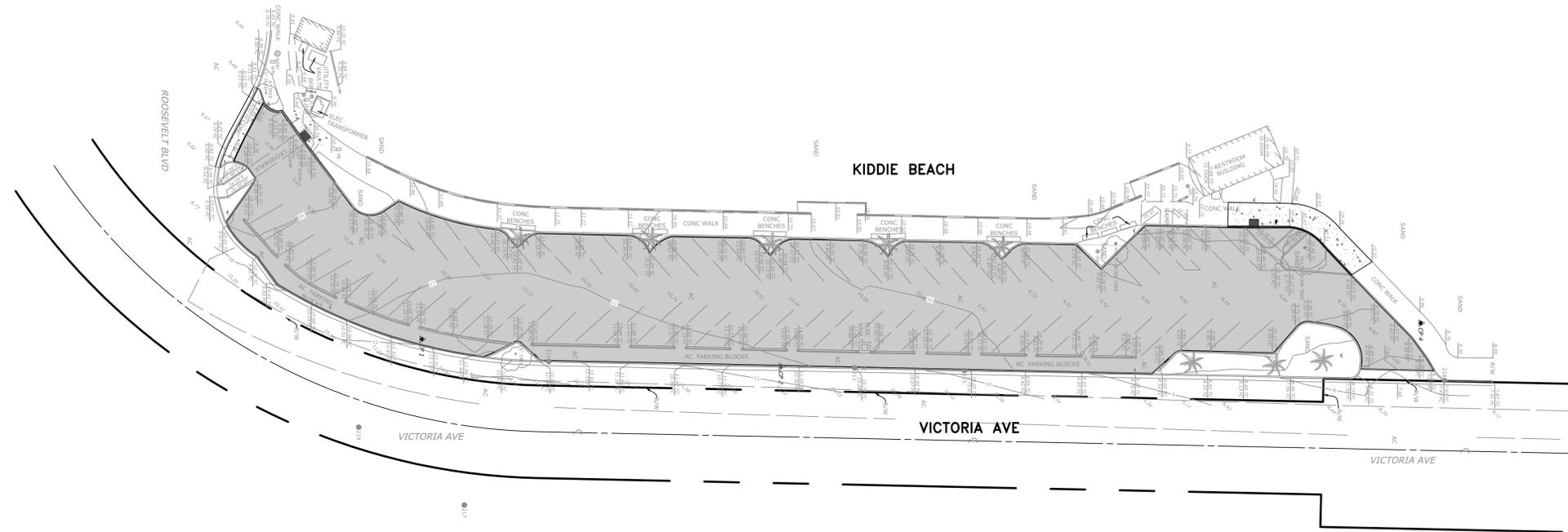
Contractors and Subcontractor who are required to register but fail to do so are ineligible to bid or work on a public works contract.

**Note: The Unlisted Subcontractor's List is required to be submitted to the Project Engineer for approval prior to the issuance of the Notice to Proceed.**

# PLANS

COUNTY OF VENTURA  
PUBLIC WORKS AGENCY

CHANNEL ISLANDS HARBOR  
KIDDIE BEACH  
PARKING LOT REHABILITATION



**SURVEY NOTES**

1. RECORD COMPILED BOUNDARY

THE RIGHTS OF WAY SHOWN HEREON ARE BASED ON RECORDS AND DATA COMPILED FROM COUNTY RIGHT OF WAY MAP 16200. THE INFORMATION FROM SAID MAP HAS BEEN TRANSLATED AND ROTATED TO FIT MONUMENTS FOUND DURING THIS SURVEY. THIS DOES NOT CONSTITUTE A FULL BOUNDARY ESTABLISHMENT, AND NO TITLE REPORT WAS PROVIDED OR OBTAINED.

2. BASIS OF BEARINGS AND COORDINATES

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM NAD83, ZONE 5, EPOCH 2017.50 AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS) AND/OR CONTINUOUS OPERATING REFERENCE STATIONS (CORS) VNCO & CSCI BEING SOUTH 56-18-26 EAST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC).

3. ELEVATIONS

THE VERTICAL DATUM OF THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), PER TIES TO VENTURA COUNTY BENCHMARK PID 323, BEING A VENTURA COUNTY BRASS DISK STAMPED 32-16 RM 1 1988 HAVING AN ELEVATION OF 8.77 US SURVEY FEET.

**CONTROL TABLE**

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1882506.35	6192022.67	11.48	SET MAG EGG CNTL WASHER
2	1882661.90	6192034.49	11.10	SET SCRIBED X
4	1882939.12	6192015.72	9.34	SET SCRIBED X
6	1883158.13	6192034.78	7.86	SET SCRIBED X
213	1882693.86	6192035.08	10.83	FOUND 2IN BRASS DISC
215	1882741.47	6192036.17	10.29	FND LTT CITY OF OXNARD

**SHEET INDEX**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DEMOLITION PLAN
3	IMPROVEMENT PLAN
4	IMPROVEMENT PLAN AND DETAILS
5	E100 - GENERAL NOTES, ABBREVIATIONS, SYMBOLS & DRAWING LIST
6	E101 - OUTDOOR TITLE 24
7	E140 - SITE POWER PLAN
8	E200 - ELECTRICAL PANEL SCHEDULE - EXISTING CONDITIONS
9	E300 - NEW SITE LIGHTING PLAN
10	E301 - SITE PHOTOMETRIC PLAN
11	E400 - NEW SITE POWER PLAN
12	E405 - ENLARGED RESTROOM POWER PLAN
13	E600 - ELECTRICAL DETAILS
14	E601 - LIGHTING CUT SHEETS



Know what's below.  
Call before you dig.



PLAN DATE: 10/4/23

APN: \_\_\_\_\_ GP: xx-xxxx

REVISION	DESCRIPTION	APP	DATE
D			
C			
B			
A			

DESIGNED: TJM  
DRAWN: TJM  
CHECKED: -  
APPROVED: -

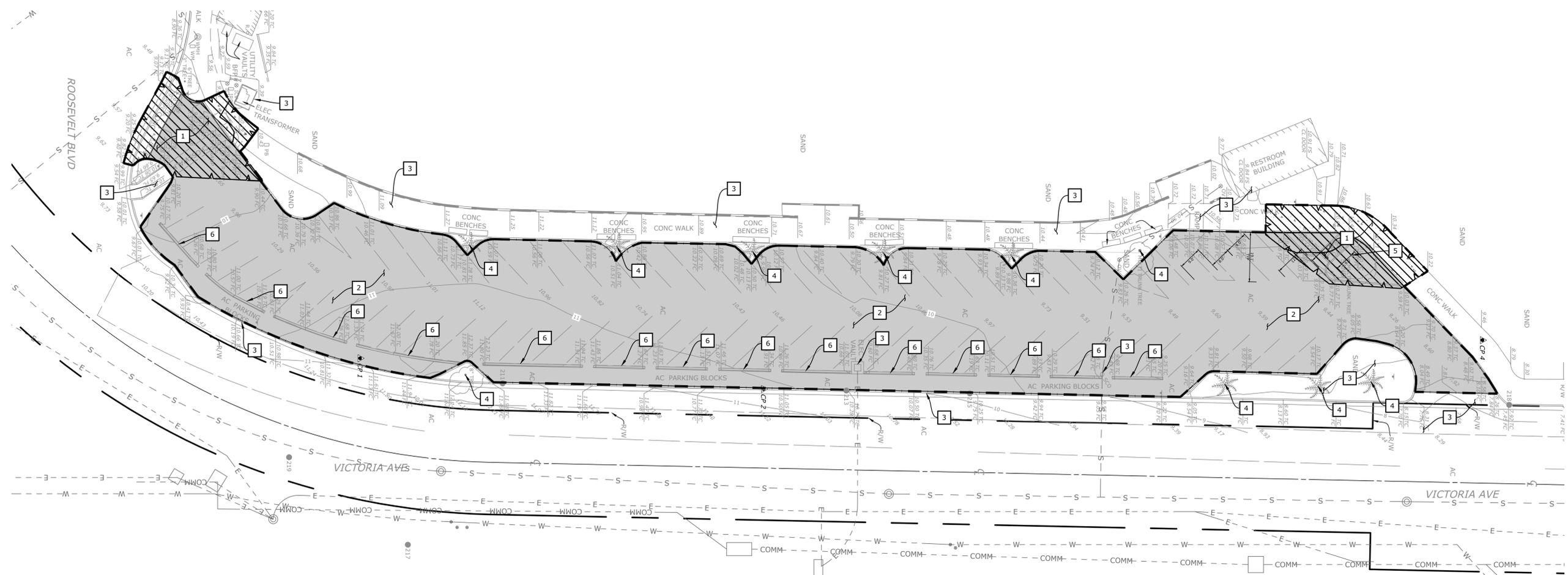
APPROVED: COUNTY OF VENTURA  
DATE: \_\_\_\_\_  
BY: \_\_\_\_\_  
DEVELOPMENT & INSPECTION SERVICES

COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
HARBOR DEPARTMENT

SPEC. NO. \_\_\_\_\_  
PROJ. NO. \_\_\_\_\_

KIDDIE BEACH  
PARKING LOT REHABILITATION

SHEET 1  
OF 14  
DRAWING NO.



**GENERAL DEMOLITION NOTES**

1. DEMOLITION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO REMOVE EXISTING STRUCTURES AND ALL OTHER OBJECTIONABLE MATERIAL FROM THE PROJECT SITE.
2. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE REMOVAL OF MATERIAL FROM THE SITE AND ALL OBJECTIONABLE MATERIALS COVERED BY THESE PLANS. DISPOSAL OF MATERIALS SHALL BE DONE IN A SAFE AND LEGAL MANNER AND SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.
3. THE CONTRACTOR SHALL CONTINUOUSLY CLEAN AND REMOVE DEMOLISHED MATERIALS FROM THE SITE EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE. DO NOT ALLOW MATERIALS TO ACCUMULATE ON SITE.
4. EXISTING OVERHEAD, SURFACE, OR UNDERGROUND UTILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPLACE ANY ITEMS DAMAGED DURING THE DEMOLITION PROCESS THAT ARE INTENDED TO REMAIN AT NO ADDITIONAL COST TO THE OWNER.
6. ALL SURFACE FEATURES FOR EXISTING OVERHEAD, SURFACE, OR UNDERGROUND UTILITIES SHALL REMAIN AND BE ADJUSTED TO MATCH NEW FINISH GRADE WHERE NECESSARY.
7. ALL EXISTING IMPROVEMENTS SHALL BE PROTECTED-IN-PLACE UNLESS OTHERWISE SPECIFIED ON THE PLANS.
8. THE CONTRACTOR SHALL THOROUGHLY REVIEW THE CONSTRUCTION DOCUMENTS IN THEIR ENTIRETY PRIOR TO PROJECT DEMOLITION AND CONSTRUCTION. PLAN DISCREPANCIES OR DEFICIENCIES SHALL BE REPORTED TO THE OWNER PRIOR TO CONSTRUCTION.
9. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXISTING SURFACE ELEVATIONS WHERE PROPOSED IMPROVEMENT ELEVATIONS ARE INTENDED TO MATCH AND REPORT ANY DISCREPANCIES TO THE OWNER.
10. ALL AREAS TO RECEIVE PROPOSED IMPROVEMENTS SHALL BE CLEARED AND GRUBBED IN ACCORDANCE WITH SSPWC SECTION 300-1.
11. UNLESS OTHERWISE SHOWN, THE DEPTHS OF EXISTING UTILITIES ARE NOT KNOWN.
12. SAWCUT EXISTING PAVEMENT TO A CLEAN STRAIGHT EDGE. WHERE SHOWN, SAWCUT EDGES SHALL BE MADE WITH SMOOTH RADIUS CUTS.

**DEMOLITION LEGEND**

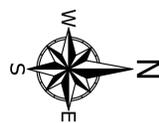
- \*THIS LEGEND APPLIES TO THIS SHEET ONLY
- 1-1/2" COLD MILL EXISTING AC PAVEMENT
  - EXISTING HARDSCAPE TO BE REMOVED
  - EXISTING CONCRETE SIDEWALK TO BE REMOVED
  - LIMITS OF DEMOLITION
  - SAWCUT LINE

**DEMOLITION NOTES**

- SAWCUT AND REMOVE EXISTING PAVEMENT TO LIMITS SHOWN.
- 1-1/2" FULL WIDTH COLD MILL PER DETAIL "x" ON SHEET X.
- PROTECT EXISTING IMPROVEMENT IN PLACE.
- PROTECT EXISTING TREE IN PLACE.
- REMOVE EXISTING TREE, DIAMETER PER PLAN.
- REMOVE EXISTING AC CURB.

**CAUTION: UNDERGROUND STRUCTURES**

ALL UNDERGROUND UTILITIES OR STRUCTURES REPORTED BY THE OWNER OR THOSE SHOWN ON RECORDS EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. THE CONTRACTOR, BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO, UNDERSTANDS THAT THEY AGREE TO ASSUME LIABILITY, AND AGREE TO HOLD THE UNDERSIGNED HARMLESS FOR ANY LIABILITY FOR DAMAGE RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED, NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, LOCATED AT VARIANCE WITH THAT REPORTED OR SHOWN ON RECORDS EXAMINED. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING TO WORK.



PLAN DATE: 10/4/23

APN: \_\_\_\_\_ CP: xx-xxxx

REVISION	DESCRIPTION	APP	DATE
D			
C			
B			
A			

DESIGNED: TJM  
 DRAWN: TJM  
 CHECKED: -  
 APPROVED: -

APPROVED: COUNTY OF VENTURA  
 DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 DEVELOPMENT & INSPECTION SERVICES

**COUNTY OF VENTURA  
 PUBLIC WORKS AGENCY  
 HARBOR DEPARTMENT**

SPEC. NO. -  
 PROJ. NO. -

**KIDDLE BEACH  
 PARKING LOT REHABILITATION**

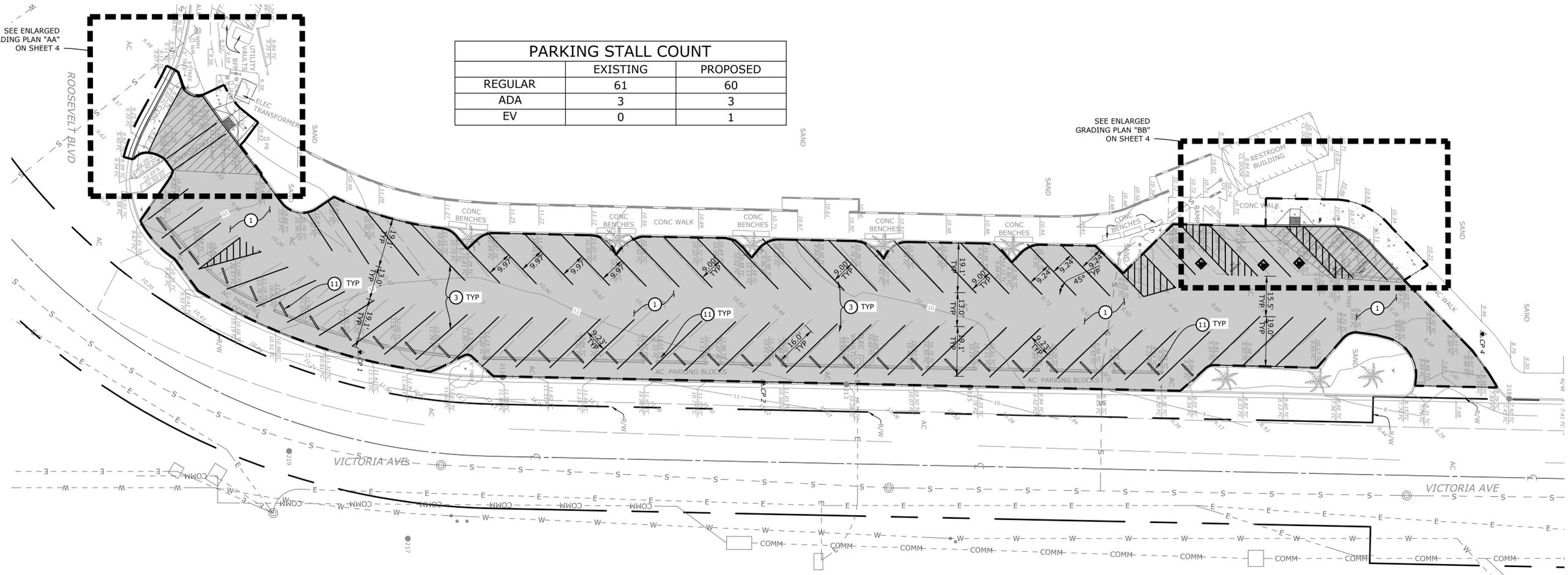
SHEET 2  
 OF 14  
 DRAWING NO.

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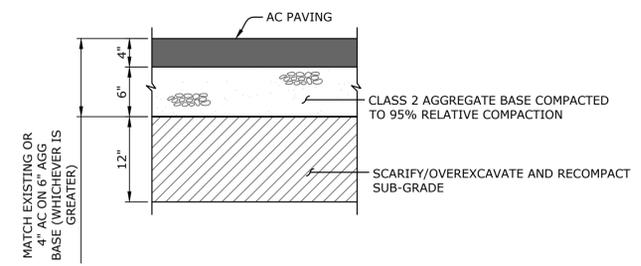
SEE ENLARGED GRADING PLAN "AA" ON SHEET 4

PARKING STALL COUNT		
	EXISTING	PROPOSED
REGULAR	61	60
ADA	3	3
EV	0	1

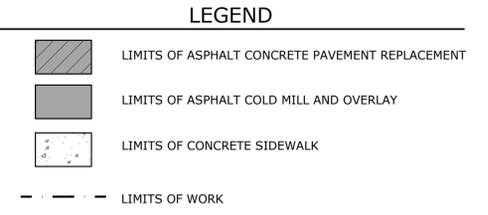
SEE ENLARGED GRADING PLAN "BB" ON SHEET 4



**ACCESSIBLE PARKING SIGNAGE**  
SCALE: NTS



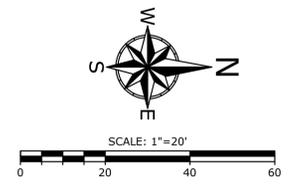
**ASPHALT PAVEMENT SECTION**  
SCALE: N.T.S.



- CONSTRUCTION NOTES**
- CONSTRUCT 1-1/2" COLD MILL AND OVERLAY.
  - PROTECT EXISTING IMPROVEMENT IN PLACE.
  - FURNISH AND INSTALL 4" WIDE WHITE PARKING STRIPE.
  - FURNISH AND INSTALL 4" BLUE BORDER STRIPES AND 4" DIAGONAL HATCHED STRIPES AT 36" MAX O.C. WITH 12" "NO PARKING" WITHIN THE ACCESS AISLE PER SECTION 11B-502.3 OF THE 2016 CALIFORNIA BUILDING CODE.
  - FURNISH AND INSTALL ACCESSIBILITY SYMBOL PER SECTION 11B-502.6.4.1 OF THE 2016 CALIFORNIA BUILDING CODE.
  - FURNISH AND INSTALL CALIFORNIA MUTCD R99, R99B, AND R7-8B SIGN(S) AND POST PER CALTRANS REVISED STANDARD PLAN A90A, SEE DETAIL "A" HEREON.
  - CONSTRUCT CONCRETE SIDEWALK CURB RAMP CASE A PER SPWPC STANDARD PLAN 111-5.
  - FURNISH AND INSTALL SURFACE MOUNTED DETECTABLE/TACTILE WARNING SURFACE PER SPWPC 111-5.
  - FURNISH AND INSTALL CROSSWALK STRIPING.
  - CONSTRUCT CONCRETE SIDEWALK PER CITY OF OXNARD STANDARDS.
  - CONSTRUCT CONCRETE PARKING BUMPER PER CALTRANS STANDARD SPECIFICATIONS SECTION 78-5.
  - CONSTRUCT ASPHALT PAVEMENT SECTION PER DETAIL "B" HEREON.
  - CONSTRUCT COMMERCIAL CONCRETE DRIVEWAY PER SPWPC 110-2.
  - PROPOSED ELECTRIC VEHICLE PARKING STALL.
  - CONSTRUCT BOLLARD AND ELECTRICAL VEHICLE CHARGING STATION PER ELECTRICAL PLANS.

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PLAN DATE: 10/4/23

APN: \_\_\_\_\_ CP: xx-xxxx

REVISION	DESCRIPTION	APP	DATE

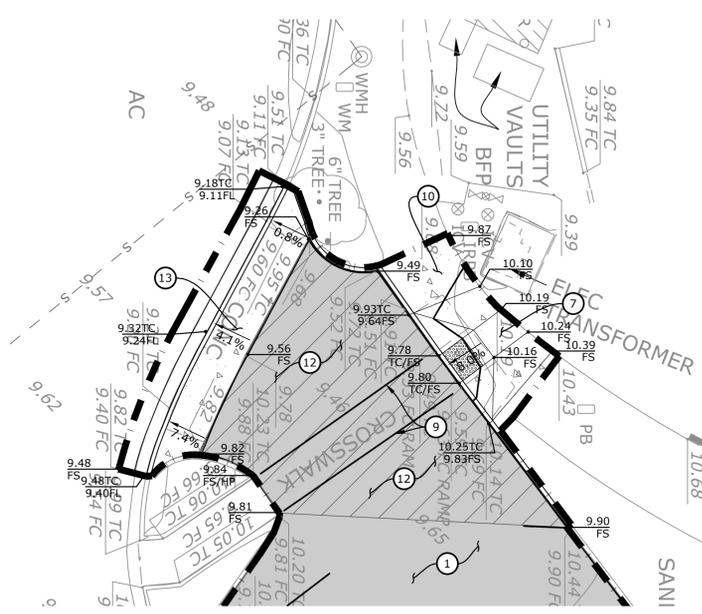
DESIGNED	TJM	APPROVED:	COUNTY OF VENTURA
DRAWN	TJM	DATE:	_____
CHECKED	—	BY:	_____
APPROVED	—		DEVELOPMENT & INSPECTION SERVICES

**COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
HARBOR DEPARTMENT**

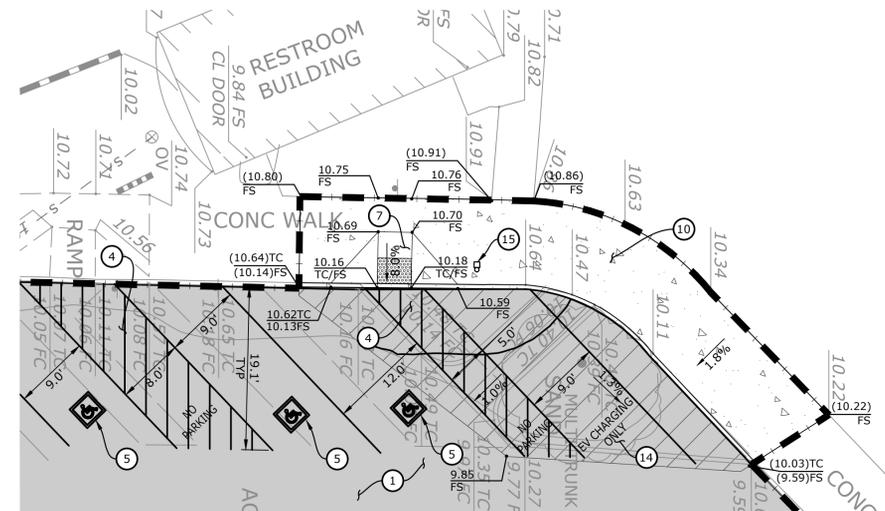
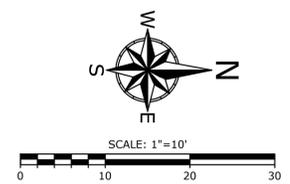
SPEC. NO.	—
PROJ. NO.	—

**KIDDIE BEACH  
PARKING LOT REHABILITATION**

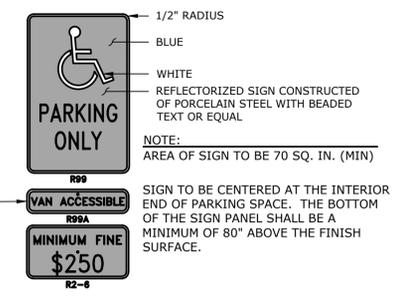
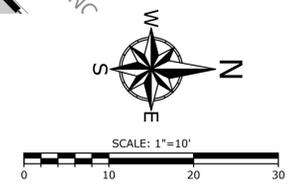
SHEET	3
OF	14
DRAWING NO.	



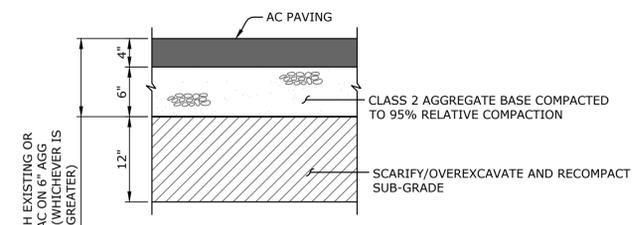
ENLARGED GRADING PLAN  
SCALE: 1" = 10'



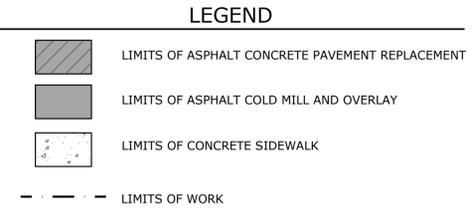
ENLARGED GRADING PLAN  
SCALE: 1" = 10'



ACCESSIBLE PARKING SIGNAGE  
SCALE: NTS



ASPHALT PAVEMENT SECTION  
SCALE: N.T.S.



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- CONSTRUCT 1-1/2" COLD MILL AND OVERLAY.
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PLAN DATE: 10/4/23

APN: \_\_\_\_\_ GP: xx-xxxx

REVISION	DESCRIPTION	APP	DATE

DESIGNED	TJM
DRAWN	TJM
CHECKED	-
APPROVED	-

APPROVED: COUNTY OF VENTURA  
DATE: \_\_\_\_\_  
BY: \_\_\_\_\_  
DEVELOPMENT & INSPECTION SERVICES

**COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
HARBOR DEPARTMENT**

SPEC. NO.	-
PROJ. NO.	-

**KIDDIE BEACH  
PARKING LOT REHABILITATION**

SHEET	4
OF	14
DRAWING NO.	

TIME: 10:52 am

DATE: 28 September 2023

PATHNAME: G:\23\761\EL\1\EL1\Sheets

DRAWING FILENAME: 23-761 E100

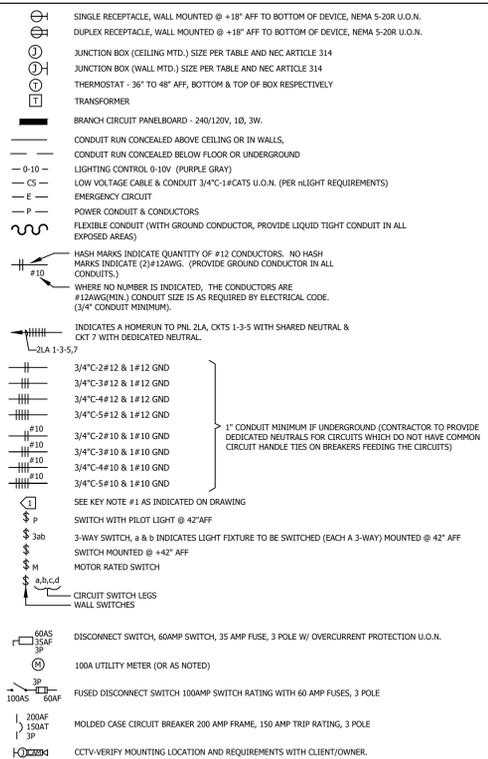
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GENERAL NOTES

- A. GENERAL
1. SCOPE
2. PERMITS AND CHARGES
3. REGULATIONS AND CODES
4. VERIFYING EXISTING CONDITIONS
5. COORDINATION
6. SERVICE CONTINUITY
7. AS BUILT
8. GUARANTEE
9. SHOP DRAWINGS
10. CONTRACTOR BID
B. MATERIAL AND INSTALLATION
C. CONDUITS
D. SWITCHES AND RECEPTACLES
E. FEEDERS AND BRANCH CIRCUITS IDENTIFICATION
F. CONDUCTORS
G. LIGHTING FIXTURES
H. PANELBOARDS (BID SQUARE D, PROVIDE GE ALTERNATE BID)
I. STRUCTURAL SUPPORT
J. ELECTRICAL CERTIFICATION
K. DEMOLITION
L. REMOVED MATERIALS AND EQUIPMENT WHICH ARE SALVAGEABLE
M. DISCONNECT AND MAKE SAFE ALL ELECTRICAL SYSTEMS ON SITE
N. EXECUTION

- 3. ALL CONDUIT RUNS SHALL BE CONCEALED, UNLESS SHOWN OTHERWISE. PROVIDE A PULL WIRE IN ALL EMPTY CONDUITS.
4. EXISTING CONDITION SHOWN IS FROM AVAILABLE RECORD DRAWINGS AND VISUAL FIELD SURVEY AND SHOWN FOR REFERENCE ONLY.
5. ALL WORK SHOWN IS NEW UNLESS SPECIFICALLY INDICATED AS EXISTING (X). ALL ELECTRICAL EQUIPMENT MOUNTING AND ANCHORAGE MUST CONFORM WITH LOCAL AND STATE SEISMIC CODES.
E. TELEPHONE SYSTEMS
F. GROUNDING & BONDING
G. INSTALLATION
H. ADDITIONAL NOTES

SYMBOLS



COLOR CODE FOR CONDUCTORS

Table with 2 columns: PROVIDE CONDUCTOR COLOR CODE AS FOLLOWS: and DERATING TABLE. Includes color codes for phase conductors and neutral/ground conductors.

DERATING TABLE

Table with 2 columns: NUMBER OF CURRENT-CARRYING CONDUCTORS and PERCENT OF VALUES IN TABLES AS ADJUSTED FOR AMBIENT TEMPERATURE IF NECESSARY. Includes rows for 4 through 31 conductors.

WHERE SINGLE CONDUCTORS OR MULTICONDUCTOR CABLES ARE STACKED OR BUNDLED LONGER THAN 24 INCHES (610 mm) WITHOUT MAINTAINING SPACING AND ARE NOT INSTALLED IN RACEWAYS, THE ALLOWABLE AMPACITY OF EACH CONDUCTOR SHALL BE REDUCED AS SHOWN IN THE ABOVE TABLE.

LIST OF DRAWINGS

Table with 2 columns: SHEET # and SHEET DESCRIPTION. Lists sheets E100 through E601 including General Notes, Outdoor Title, Site Power Plan, Electrical Panel Schedule, New Site Lighting Plan, Site Photometric Plan, New Site Power Plan, Enlarged Restroom Power Plan, Electrical Details, and Lighting Cut Sheets.

SCOPE OF WORK

PROVIDE NEW POWER SERVICE FROM SCE TO REPLACE EXISTING SERVICE. ADD NEW PEDESTRIAN LIGHTING & REPLACE EXISTING EXTERIOR BUILDING LIGHTING. ADD CONDUITS FOR FUTURE USES.

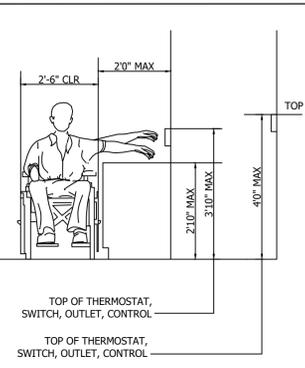
LIST OF APPLICABLE CODES

Table with 2 columns: LIST OF APPLICABLE CODES and APPLICABLE STANDARDS. Lists codes such as 2022 California Administrative Code (CAC), 2022 California Building Code (CBC), 2022 California Green Building Standards Code (CALGreen), 2022 California Electrical Code (CEC), 2022 California Mechanical Code (CMC), 2022 California Plumbing Code (CPC), 2022 California Energy Code (CEC), and 2022 California Fire Code (CFC).

ABBREVIATIONS

Table with 2 columns: ABBREVIATIONS and LONG CONTINUOUS LOAD. Lists abbreviations for electrical components like amperes, fuse, meter, metal clad, main distribution frame, etc.

MOUNTING HEIGHT OVER OBSTRUCTION



SITE/AREA MAP



LUCCI & ASSOCIATES, INC. CONSULTING ELECTRICAL ENGINEERS. 3251 CORTE MALPASO, #511, CARMARILLO, CA 93912-8004. (805) 389-0529. FAX (805) 389-0519.

DESIGNED: K.L. APPROVED: COUNTY OF VENTURA. DRAWN: D.S./L.K. DATE: BY: DEVELOPMENT & INSPECTION SERVICES.

COUNTY OF VENTURA PUBLIC WORKS AGENCY HARBOR DEPARTMENT. SPEC. NO. PROJ. NO.

KIDDIE BEACH PARKING LOT REHABILITATION GENERAL NOTES, ABBREVIATIONS, SYMBOLS & DRAWING LIST. SHEET 5 OF 14. DRAWING NO. E100. PAPER SIZE 36"x24".

Drawing created using AutoCAD 2013. All dimensions are in feet and inches unless otherwise specified. All drawings are the property of Lucci & Associates, Inc. and shall not be reproduced, changed, or copied in any form or by any means without the prior written permission of Lucci & Associates, Inc. All drawings are to be used for the project only and shall not be used for any other project without obtaining the prior written permission of Lucci & Associates, Inc.

G:\23\761\EL\1\EL1\Sheets\23-761 E100.dwg

TIME: 10:52 am

DATE: 28 September 2023

PATHNAME: G:\23\761\EL\Sheets

DRAWING FILENAME: 23-761 E101

DRAFTER: CH02

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STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION  
**Outdoor Lighting**  
 CERTIFICATE OF COMPLIANCE NRCC-LTO-E  
 Project Name: Kiddie Park Report Page: (Page 7 of 8)  
 Project Address: Kiddie Park Date Prepared: 2023-08-28 10:04:41

**O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**  
 Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online.

Form/Title: \_\_\_\_\_  
 NRCC-LTO-E - Must be submitted for all buildings.

**P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**  
 There are no NRCA forms required for this project.

Generated Date/Time: \_\_\_\_\_ Documentation Software: Energy Code Ace  
 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 129217-0823-0004  
 Schema Version: rev 20220101 Report Generated: 2023-08-28 10:04:41

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION  
**Outdoor Lighting**  
 CERTIFICATE OF COMPLIANCE NRCC-LTO-E  
 Project Name: Kiddie Park Report Page: (Page 4 of 8)  
 Project Address: Kiddie Park Date Prepared: 2023-08-28 10:04:41

**H. OUTDOOR LIGHTING CONTROLS**  
 This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie unswitched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.

Area Description	01 Shut-Off 130.2(c)(1) / 160.5(c)	02 Auto-Schedule 130.2(c)(2) / 160.5(c)	03 Motion Sensor 130.2(c)(3) / 160.5(c)	04 Field Inspector	05
PARKING LOT "P1"	Astronomical Timer	Provided	Provided	Pass	Fail

<sup>1</sup> FOOTNOTE: Text has been abbreviated, please refer to Table 160.5-A to confirm compliance with the specific light source technologies listed.  
<sup>2</sup> Authority having jurisdiction may ask for cutsheets or other documentation to confirm compliance of light source.  
<sup>3</sup> recessed luminaires marked for use in fire-rated installations, and recessed luminaires installed in non-insulated ceilings are exempted from (i) and (ii).

Generated Date/Time: \_\_\_\_\_ Documentation Software: Energy Code Ace  
 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 129217-0823-0004  
 Schema Version: rev 20220101 Report Generated: 2023-08-28 10:04:41

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION  
**Outdoor Lighting**  
 CERTIFICATE OF COMPLIANCE NRCC-LTO-E  
 Project Name: Kiddie Park Report Page: (Page 1 of 8)  
 Project Address: Kiddie Park Date Prepared: 2023-08-28 10:04:41

**A. GENERAL INFORMATION**

01 Project Location (city)	Onward	04 Total Illuminated Hardscape Area (ft <sup>2</sup> )	14000
02 Climate Zone	6		
03 Outdoor Lighting Zone per Title 24 Part 1 10.114 or as designated by Authority Having Jurisdiction (AHJ):	<input type="checkbox"/> L2-0: Very Low - Undeveloped Parkland <input type="checkbox"/> L2-2: Moderate - Urban Clusters <input type="checkbox"/> L2-4: High - Must be reviewed by CA Energy Commission for Approval		
	<input type="checkbox"/> L2-1: Low - Rural Areas <input checked="" type="checkbox"/> L2-3: Moderately High - Urban Areas		
05 Occupancy Types within Project			

All Other Occupancies

**B. PROJECT SCOPE**  
 This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.7 / 170.2(e)(6) or 141.0(b)(2) / 180.2(b)(4b) for alterations.

My Project Consists of:

01 New Lighting System	Must Comply with Allowances from 140.7 / 170.2(e)(6)	02
<input checked="" type="checkbox"/> Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)?	<input checked="" type="radio"/> Yes <input type="radio"/> No
03	04	05
% of Existing Luminaires Being Altered <sup>1</sup>	Sum Total of Luminaires Being Added or Altered	Calculation Method
<input type="checkbox"/> < 10% <input type="checkbox"/> >= 10% and < 50% <input type="checkbox"/> >= 50%		

Please proceed to Table F, Outdoor Lighting Fixture Schedule to define the project's luminaires.  
<sup>1</sup> FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.

Generated Date/Time: \_\_\_\_\_ Documentation Software: Energy Code Ace  
 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 129217-0823-0004  
 Schema Version: rev 20220101 Report Generated: 2023-08-28 10:04:41

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION  
**Outdoor Lighting**  
 CERTIFICATE OF COMPLIANCE NRCC-LTO-E  
 Project Name: Kiddie Park Report Page: (Page 8 of 8)  
 Project Address: Kiddie Park Date Prepared: 2023-08-28 10:04:41

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**  
 I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Kenneth Lucci Documentation Author Signature: \_\_\_\_\_  
 Signature Date: 08-25-2023  
 Company: Lucci & Associates  
 Address: \_\_\_\_\_  
 City/State/Zip: \_\_\_\_\_

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**  
 I certify the following under penalty of perjury, under the laws of the State of California:  
 1. The information provided on this Certificate of Compliance is true and correct.  
 2. I am eligible under Division 1 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).  
 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.  
 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.  
 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the building owner provides to the building owner at occupancy.

Responsible Designer Name: Kenneth Lucci Responsible Designer Signature: \_\_\_\_\_  
 Signature Date: 08-25-2023  
 Company: Lucci & Associates  
 Address: \_\_\_\_\_  
 City/State/Zip: \_\_\_\_\_

Generated Date/Time: \_\_\_\_\_ Documentation Software: Energy Code Ace  
 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 129217-0823-0004  
 Schema Version: rev 20220101 Report Generated: 2023-08-28 10:04:41

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION  
**Outdoor Lighting**  
 CERTIFICATE OF COMPLIANCE NRCC-LTO-E  
 Project Name: Kiddie Park Report Page: (Page 5 of 8)  
 Project Address: Kiddie Park Date Prepared: 2023-08-28 10:04:41

**I. LIGHTING POWER ALLOWANCE (per 140.7 / 170.2(e))**  
 This table includes areas using allowance calculations per 140.7 / 170.2(e). General Hardscape Allowance is per Table 140.7-A/170.2-R while "Use it or lose it" Allowances are per Table 140.7-B/170.2-S. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance. Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H, and are not included here. All other multifamily outdoor lighting is included here.

Area Description	02		03		04		05		06		07		08		09 Total General AWA + LWA (Watts)
	Illuminated Area (ft <sup>2</sup> )	Allowed Density (W/ft <sup>2</sup> )	Area Allowance (Watts)	Perimeter Length (ft)	Allowed Density (W/ft)	Linear Allowance (Watts)	Linear Allowance (Watts)	Linear Allowance (Watts)	Linear Allowance (Watts)	Linear Allowance (Watts)	Linear Allowance (Watts)	Linear Allowance (Watts)	Linear Allowance (Watts)		
PARKING LOT	41000	0.021	861	1600	0.2	320	1181	Initial Wattage Allowance for Entire Site (Watts):		Instances of Initial Wattage Allowance (L2 0 only) <sup>1</sup>		Total General Hardscape Allowance (Watts):		1181	

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A for Nonresidential & Hotel/Motel

Generated Date/Time: \_\_\_\_\_ Documentation Software: Energy Code Ace  
 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 129217-0823-0004  
 Schema Version: rev 20220101 Report Generated: 2023-08-28 10:04:41

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION  
**Outdoor Lighting**  
 CERTIFICATE OF COMPLIANCE NRCC-LTO-E  
 Project Name: Kiddie Park Report Page: (Page 2 of 8)  
 Project Address: Kiddie Park Date Prepared: 2023-08-28 10:04:41

**C. COMPLIANCE RESULTS**  
 Results in this table are automatically calculated from data input and calculations in Tables F through N. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

Calculations of Total Allowed Lighting Power (Watts) 140.7 / 170.2(e)(6) or 141.0(b)(2) / 180.2(b)(4b)										Compliance Results	
01	02	03	04	05	06	07	08	09	10	11	12
General Hardscape Allowance	Per Application Allowance	Sales Frontage Allowance	Ornamental Allowance	Per Specific Area Allowance	Existing Power Allowance	Total Allowed (Watts)	Total Actual (Watts)	07 must be >= 08			
1,181	38					1,219	958	COMPLIES			
Shielding Compliance (See Table G for Details)										COMPLIES	

**D. EXCEPTIONAL CONDITIONS**  
 This table is auto-filled with unedited comments because of selections made or data entered in tables throughout the form.

**E. ADDITIONAL REMARKS**  
 This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

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 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 129217-0823-0004  
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STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION  
**Outdoor Lighting**  
 CERTIFICATE OF COMPLIANCE NRCC-LTO-E  
 Project Name: Kiddie Park Report Page: (Page 6 of 8)  
 Project Address: Kiddie Park Date Prepared: 2023-08-28 10:04:41

**J. LIGHTING ALLOWANCE: PER APPLICATION**  
 This table includes areas using the wattage allowance per application from Table 140.7-B / Table 170.2-S.

Area Description	Application per Table 140.7-B <sup>1</sup>	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS			Additional Allowance (Watts)
		# of Locations	Allowance per Location <sup>2</sup>	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire	# of Luminaires	
PARKING LOT	Building Entrance/Exit	2	19	38	P1	87	4	348
Total Design Watts for this Area:								348
Total Allowance (Watts) All Areas:								38

<sup>1</sup> FOOTNOTES: Primary entrance applications are only available for senior care facilities, healthcare facilities, police stations, hospitals, fire stations, and emergency vehicle facilities.  
<sup>2</sup> The Allowance per Location for ATMs is 100W for the first ATM and 35W for each additional per Table 140.7-B/170.2-S.  
<sup>3</sup> For luminaires indicated in Table F as linear, wattage in column 07 is W/ft instead of Watts/luminaire. Total linear feet should be indicated in column 08 instead of number of luminaires.

**K. LIGHTING ALLOWANCE: SALES FRONTAGE**  
 This section does not apply to this project.

**L. LIGHTING ALLOWANCE: ORNAMENTAL**  
 This section does not apply to this project.

**M. LIGHTING ALLOWANCE: PER SPECIFIC AREA**  
 This section does not apply to this project.

**N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)**  
 This section does not apply to this project.

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 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 129217-0823-0004  
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STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION  
**Outdoor Lighting**  
 CERTIFICATE OF COMPLIANCE NRCC-LTO-E  
 Project Name: Kiddie Park Report Page: (Page 3 of 8)  
 Project Address: Kiddie Park Date Prepared: 2023-08-28 10:04:41

**F. OUTDOOR LIGHTING FIXTURE SCHEDULE**  
 For new or altered lighting systems demonstrating compliance with 140.7 / 170.2(e) all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per 141.0(b)(2) only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H, and are not included here. All other multifamily outdoor lighting is included here.

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Complete Luminaire Description	Watts per luminaire <sup>1,2</sup>	How is Wattage determined	Total Number Luminaires <sup>3</sup>	Luminaire Status <sup>3</sup>	Excluded per 140.7(a) / 130.2(b) / 160.5(c)(1) <sup>4</sup>	Design Watts	Cutoff Req. > 6,200 initial lumen output	Field Inspector
P1	14 FOOT TALL LED PEDESTRIAN LIGHT	87	Mfr. Spec	9	New		783	NA: illuminate public right-of-way	Pass Fail
W1	WALL LED AREA LIGHT	35	Mfr. Spec	2	Existing Alteration		70	NA: < 6200 lumens	Pass Fail
W1	WALL AREA FOOD	35	Mfr. Spec	3	New		105	NA: < 6200 lumens	Pass Fail
Total Design Watts:								958	

<sup>1</sup> NOTES: Selections with a \* require a note in the space below explaining how compliance is achieved.  
 EX: Luminaire is lighting a statue; EXCEPTION 2 to 130.2(b)  
<sup>2</sup> FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b)  
<sup>3</sup> For linear luminaires, wattage should be indicated as W/ft instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.  
<sup>4</sup> Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope.  
<sup>5</sup> Compliance with mandatory shielding requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by 130.2(b) / 160.5(c)

**G. SHIELDING REQUIREMENTS (BUG)**  
 This section does not apply to this project.

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 Schema Version: rev 20220101 Report Generated: 2023-08-28 10:04:41



**LUCCI & ASSOCIATES**  
 CONSULTING ELECTRICAL ENGINEERS  
 3251 CORTE MALPASO, #511  
 CARLSBULL, CA 93012-8094  
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DESIGNED: K.L.  
 DRAWN: D.S./L.K.  
 CHECKED: K.L.  
 APPROVED: \_\_\_\_\_

APPROVED: COUNTY OF VENTURA  
 DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 DEVELOPMENT & INSPECTION SERVICES

**COUNTY OF VENTURA**  
**PUBLIC WORKS AGENCY**  
**HARBOR DEPARTMENT**

SPEC. NO. \_\_\_\_\_  
 PROJ. NO. \_\_\_\_\_

**KIDDIE BEACH**  
**PARKING LOT REHABILITATION**  
**OUTDOOR TITLE 24**

SHEET 6 OF 14  
 DRAWING NO. E101

D	C	B	A
REVISION	DESCRIPTION	APP	DATE

APN: \_\_\_\_\_ GP: \_\_\_\_\_ XX-XXXX

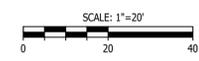
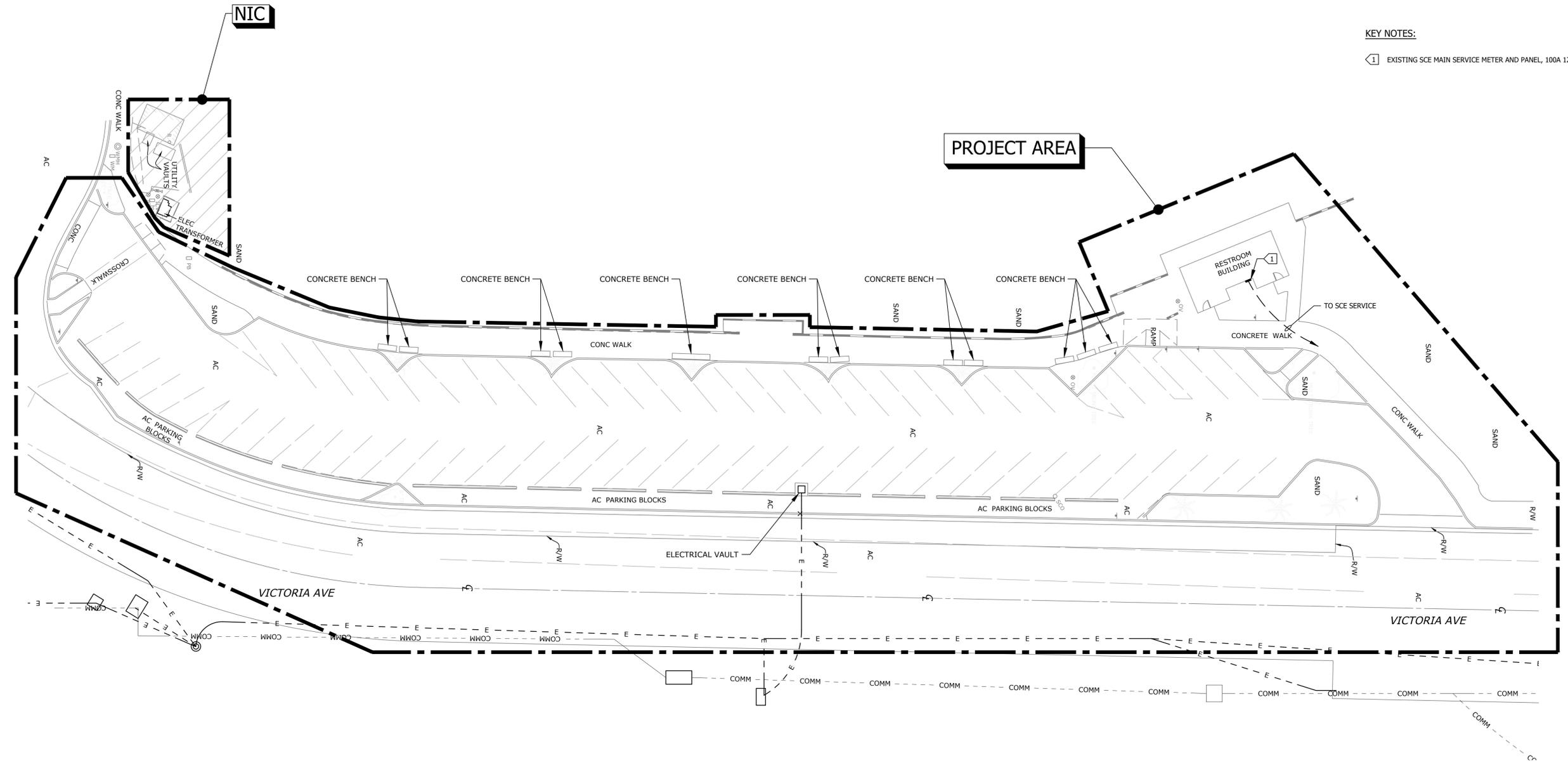
TIME: 10:52 am  
 DATE: 28 September 2023  
 PATHNAME: G:\23\761\EL\Sheets  
 DRAWING FILENAME: 23-761 E140  
 DRAFTER: CM02

**SHEET NOTES:**

- SCOPE: PROVIDE AND PERFORM DEMOLITION, PREPARATORY AND MISCELLANEOUS WORK IN AREAS AS INDICATED AND SPECIFIED, COMPLETE.
- DEMOLITION AND REMOVAL OF EXISTING ELECTRICAL CONDUIT, WIRING AND EQUIPMENT REQUIRED TO COMPLETE THE PROJECT.
- PREPARATION OF THE EXISTING BUILDING TO RECEIVE OR CONNECT THE NEW WORK.
- MISCELLANEOUS DEMOLITION, CUTTING, ALTERATION, AND REPAIR WORK IN THE EXISTING BUILDING NECESSARY FOR THE COMPLETION OF THE ENTIRE PROJECT.
- DISCONNECTING AND RECONNECTION OF ELECTRICAL EQUIPMENT AS REQUIRED BY THE CONSTRUCTION MODIFICATIONS.
- EXISTING CONDITIONS: PRIOR TO BID MAKE A DETAILED SURVEY OF THE EXISTING CONDITIONS PERTAINING TO THE WORK. CHECK THE LOCATIONS OF ALL EXISTING STRUCTURES, EQUIPMENT AND WIRING (BRANCH CIRCUITING AND CONTROLS). CHECK FOR ANY HAZARDOUS MATERIALS WHICH MAY REQUIRE SPECIAL HANDLING.
- SALVAGE AND DISPOSAL: ALL REMOVED MATERIAL OTHER THAN ITEMS TO BE REUSED SHALL BE RETURNED TO THE OWNER OR DISPOSED OF IN ACCORDANCE WITH INSTRUCTIONS FROM THE OWNER'S REPRESENTATIVE. DISPOSAL SHALL BE DONE IN ACCORDANCE WITH EPA AND GOVERNING BODY REQUIREMENTS AND REGULATIONS. CONTRACTOR SHALL PAY ALL FEES AND CHARGES FOR DISPOSAL.
- SCHEDULE ALL WORK AND OUTAGES WITH OWNERS WRITTEN APPROVAL.
- CONTRACTOR SHALL LEAVE ALL CIRCUITS ENERGIZED TO DEVICES IN AREAS OUTSIDE OF DEMOLITION AREA EVEN IF FEEDERS ARE ROUTED THROUGH DEMOLITION AREA.

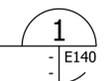
**KEY NOTES:**

1 EXISTING SCE MAIN SERVICE METER AND PANEL, 100A 120/240 VAC, 1Ø, 3W, SEE E200.



**SITE POWER PLAN - EXISTING CONDITIONS**

SCALE: 1"=20'-0"



APN: \_\_\_\_\_ GP: \_\_\_\_\_ XX-XXXX

REVISION	DESCRIPTION	APP	DATE
D			
C			
B			
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 DRAWN: D.S./L.K.  
 CHECKED: K.L.  
 APPROVED: \_\_\_\_\_

APPROVED: COUNTY OF VENTURA  
 DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 DEVELOPMENT & INSPECTION SERVICES

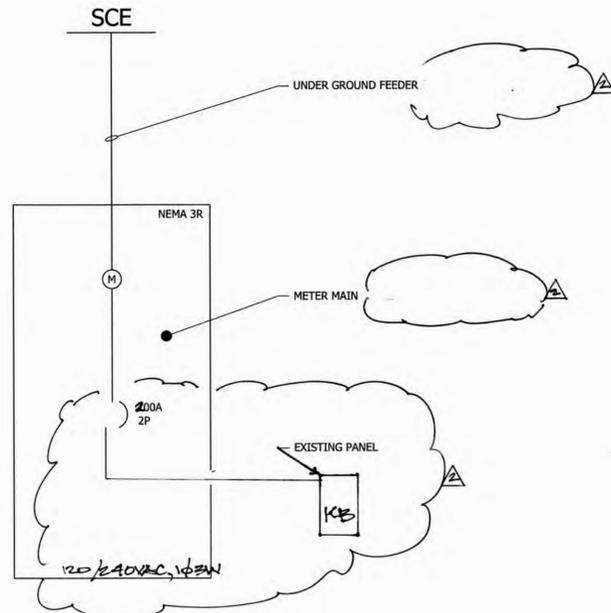
**COUNTY OF VENTURA  
 PUBLIC WORKS AGENCY  
 HARBOR DEPARTMENT**

SPEC. NO. \_\_\_\_\_  
 PROJ. NO. \_\_\_\_\_

**KIDDIE BEACH  
 PARKING LOT REHABILITATION  
 SITE POWER -  
 EXISTING CONDITIONS**

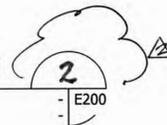
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 OF 14  
 DRAWING NO.  
 E140

TIME: 10:52 am  
 DATE: 28 September 2023  
 PATHNAME: G:\23\16\1\EL\Sheets  
 DRAWING FILENAME: 23-761 E200  
 DRAFTER: CM02



EXISTING METER MAIN

SCALE: NONE



EXISTING PANEL																
PANEL NUMBER		KB		VOLTAGE		120/240		PHASE		1 WIRE		3				
SOURCE		SCE		A.I.C.		10,000		NEMA 3R		COPPER BUSS		-				
PANEL LOCATION		EXTERIOR TO BUILDING		BUS AMPERE RATING		200		MAIN LUGS ONLY		SURFACE MOUNTING		-				
FC	LOAD (VA)	BRKR	POLE	AMP	PHASE	LOAD (VA)	BRKR	POLE	AMP	PHASE	LOAD (VA)	BRKR	POLE	AMP	PHASE	
	1200	1	20	1	A	300	2	20	1	B	300	2	20	1	A	
	1200	1	20	3	A	300	4	20	1	B	300	4	20	1	B	
	1200	1	20	5	A	300	6	20	1	B	300	6	20	1	B	
	1200	1	20	7	A	50	8	20	1	B	50	8	20	1	B	
	300	1	20	9	A		10	20	1	B		10	20	1	B	
	100	1	20	11	A		12	20	1	B		12	20	1	B	
	200	1	20	13	A		14	20	1	B		14	20	1	B	
		2	20	15	A		16	20	2	B		16	20	2	B	
		1	20	17	A		18	20	1	B		18	20	1	B	
		1	20	19	A		20	20	2	B		20	20	2	B	
		1	20	21	A		22	20	1	B		22	20	1	B	
		1	20	23	A		24	20	2	B		24	20	2	B	
TOTALS		4980	1260	CIR 41		1850	1630	TOTALS								
L.C.L. VOLT AMPS:		3880	PHASE A		1970	PHASE B		1910								
TOTAL VOLT AMPS:		25100	PHASE A		12800	PHASE B		12300								
TOTAL AMPS:		105	PHASE A		107	PHASE B		102								

EXISTING TO REMAIN  
 MOVE TO NEW LOCATION & CORRECT  
 RELOCATE FROM 10-12

ROUTE VIA NEW 4 CHANNEL TIME CLOCK - INTERMATIC ET 2145C, PROGRAM PER CLIENT DIRECTOR

EXISTING POWER PANEL

SCALE: NONE

WITH PANEL



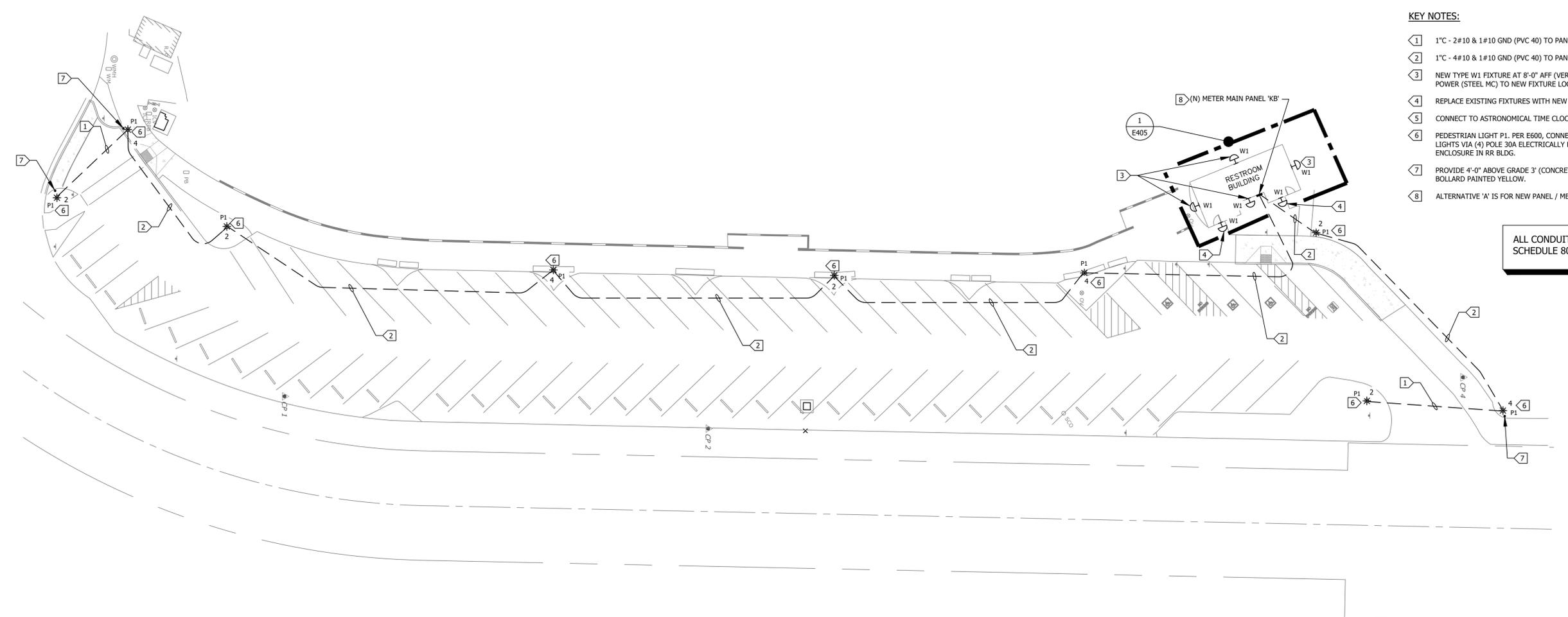
D C B A Addendum 2/A 11/9/23	LUCI & ASSOCIATES INC. CONSULTING ELECTRICAL ENGINEERS 2951 COURTE MALPASO, #511 CANANVILLE, CA 95012-8004 FAX (905) 389-6519 <small>LUCI &amp; ASSOCIATES, INC. reserves their copyright and other property rights in these plans. These plans and drawings are not to be reproduced, changed, or copied in any form or manner whatsoever without the expressed written permission and consent of LUCI &amp; ASSOC. INC. nor are they to be assigned to any third party without obtaining said written permission and consent.</small>	DESIGNED: K.L. DRAWN: D.S./L.K. CHECKED: [Signature] APPROVED: [Signature]	APPROVED: COUNTY OF VENTURA DATE: _____ BY: _____ DEVELOPMENT & INSPECTION SERVICES	COUNTY OF VENTURA PUBLIC WORKS AGENCY HARBOR DEPARTMENT	SPEC. NO. _____ PROJ. NO. _____	KIDDIE BEACH PARKING LOT REHABILITATION ELECTRICAL POWER PANEL SCHEDULE	SHEET 8 OF 14 DRAWING NO. E200
	REVISION DESCRIPTION APP DATE	APN: _____ GP: _____ XX-XXXX					

DATE: 28 September 2023  
 TIME: 10:52 am  
 PATHNAME: G:\23\761\EL\Sheets  
 DRAWING FILENAME: 23-761 E300  
 DRAFTER: CM02

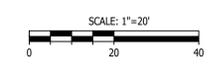
- SHEET NOTES:**
- CONTRACTOR SHALL VERIFY LOCATION, CEILING TYPE, TRIM, AND REQUIREMENTS OF ALL LIGHT FIXTURES AND CONTROL PRIOR TO BID PROPOSAL, ROUGH-IN, AND FINISH INSTALLATION.
  - CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWING. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
  - CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURERS RECOMMENDATIONS, PER THE NATIONAL ELECTRICAL CODE AND PER LOCAL AUTHORITIES HAVING JURISDICTION.
  - 3/4" CONDUIT MINIMUM UNLESS OTHERWISE NOTED.
  - ALL LIGHTING FIXTURES SHALL BE SECONDARILY SUPPORTED WITH SAFETY CABLES, PROVIDED BY CONTRACTOR.
  - VERIFY LOCATION OF ALL DEVICES ON ARCHITECTURAL PLANS.
  - MAINTAIN A MAXIMUM 2% VOLTAGE DROP ON ALL LIGHTING HOMERUNS.
  - ALL EXIT SIGNS ARE +12" TO CENTER LINE OF FIXTURE ABOVE DOOR FRAME UNLESS OTHERWISE NOTED.
  - CONTRACTOR SHALL PROVIDE ALL BACKING, BRACKETS, SUPPORTS, AND MOUNTING HARDWARE NECESSARY TO PROPERLY INSTALL LIGHTING FIXTURES.
  - VERIFY THE EXACT ROUTING OF ALL EXPOSED CONDUIT WITH OWNER PRIOR TO INSTALLATION.
  - COORDINATE WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS, DEVICES, AND WIRING REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT.
  - PROVIDE CODE SIZED EQUIPMENT GROUNDING CONDUCTOR IN ALL LIGHTING SYSTEM CONDUITS.
  - VERIFY AND PROVIDE JUNCTION BOXES, CONDUIT, DISCONNECT SWITCH, AND WIRING ASSOCIATED WITH SIGNAGE/GRAPHICS ON GRAPHICS/SIGNAGE DRAWINGS.
  - ALL LIGHTING FIXTURES, EXCEPT EMERGENCY, SHALL BE CONTROLLED BY DIMMER RACK, POWER LINK PANELBOARD, PHOTOCELL, TIMECLOCK, OR LIGHTING CONTROL RELAY SYSTEM UNLESS OTHERWISE NOTED.

LIGHTING FIXTURE SCHEDULE							
TAG	SYMBOL	WATT	DESCRIPTION	LAMP - TYPE AND QUANTITY	MOUNTING	MANUFACTURER AND MODEL NUMBER	REMARKS
P1		87	PEDESTRIAN LIGHTS	LED	14'-0" POLE	LITHONIA RADPT-P4-40K-PATH-MVOLT-PT4-NLTAIR2-DNAXD/R110830504T4-P2-xxx-312-SBF	-
W1		35	WALL MOUNTED LIGHTS	LED	WALL MOUNTED	LITHONIA WDG2-LED-P25W-40K-80CRI-VV-PIR-MVOLT-SRM-DBBXD	-

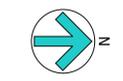
- KEY NOTES:**
- 1" C - 2#10 & 1#10 GND (PVC 40) TO PANEL 'KB' CIRCUITS AS NOTED.
  - 1" C - 4#10 & 1#10 GND (PVC 40) TO PANEL 'KB' CIRCUITS AS NOTED.
  - NEW TYPE W1 FIXTURE AT 8'-0" AFF (VERIFY) WITH PROJECT MANAGER) PROVIDE NEW POWER (STEEL MC) TO NEW FIXTURE LOCATIONS (5).
  - REPLACE EXISTING FIXTURES WITH NEW W1 (5).
  - CONNECT TO ASTRONOMICAL TIME CLOCK CIRCUIT 2.
  - PEDESTRIAN LIGHT P1. PER E600, CONNECT TO CIRCUIT 1 OF (5) FOR ALL PEDESTRIAN LIGHTS VIA (4) POLE 30A ELECTRICALLY HELD CONTACTOR IN 12" x 18" x 8" NEMA 1 ENCLOSURE IN RR BLDG.
  - PROVIDE 4'-0" ABOVE GRADE 3" (CONCRETE ENCASED) BELOW GRADE 6" PIPE PROTECTION BOLLARD PAINTED YELLOW.
  - ALTERNATIVE 'A' IS FOR NEW PANEL / METER MAIN PER E200.



ALL CONDUIT RISERS ABOVE GRADE SHALL BE SCHEDULE 80 PVC OR PVC COATED RGS.



NEW SITE LIGHTING PLAN  
 SCALE: 1"=20'-0"



APN: \_\_\_\_\_ GP: \_\_\_\_\_ XX-XXXX

REVISION	DESCRIPTION	APP	DATE
D			
C			
B			
A			

**LUCCI & ASSOCIATES**  
 CONSULTING ELECTRICAL ENGINEERS  
 3251 CORTE MALPASO, #511  
 CARMELLO, CA 93012-8094  
 (805) 389-6520 FAX (805) 389-6519

DESIGNED: K.L.  
 DRAWN: D.S./L.K.  
 CHECKED: K.L.  
 APPROVED: \_\_\_\_\_

APPROVED: COUNTY OF VENTURA  
 DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 DEVELOPMENT & INSPECTION SERVICES

**COUNTY OF VENTURA  
 PUBLIC WORKS AGENCY  
 HARBOR DEPARTMENT**

SPEC. NO. \_\_\_\_\_  
 PROJ. NO. \_\_\_\_\_

**KIDDIE BEACH  
 PARKING LOT REHABILITATION  
 NEW SITE LIGHTING PLAN**

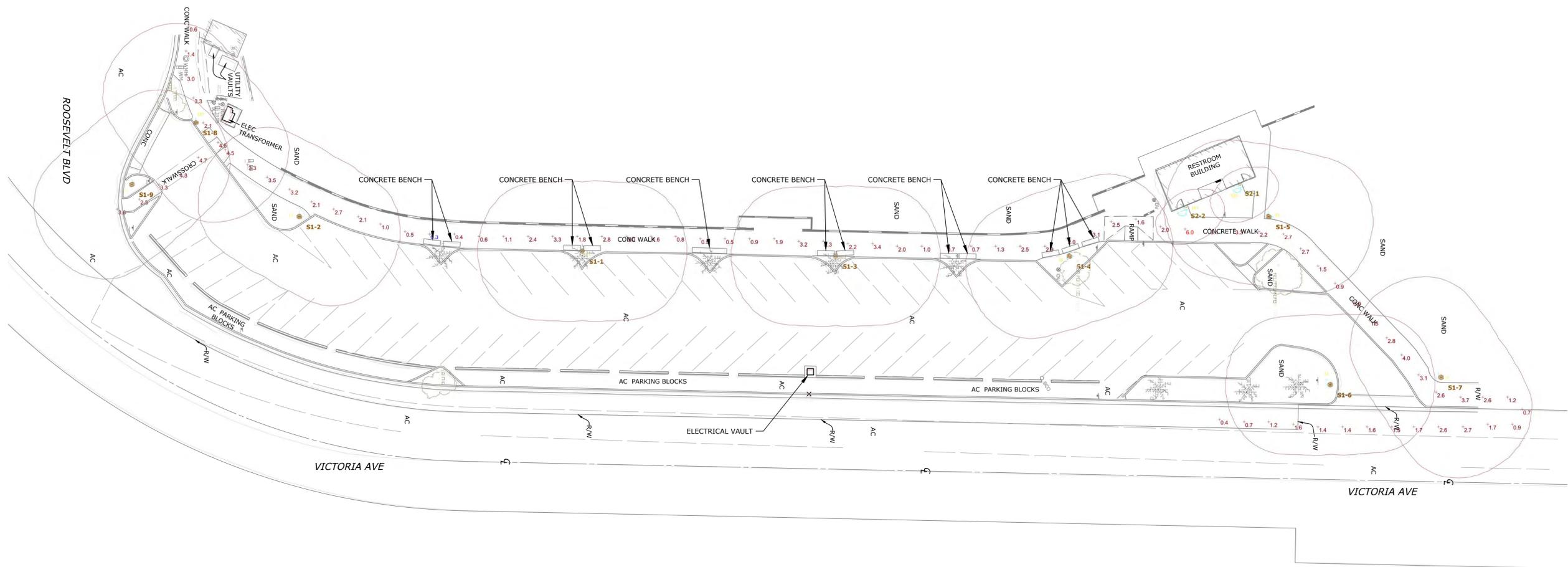
SHEET 9  
 OF 14  
 DRAWING NO.  
 E300

DATE: 28 September 2023  
 TIME: 10:52 am  
 PATHNAME: G:\23\761\EL\Sheets\23-761 E301.dwg  
 DRAWING FILENAME: 23-761 E301  
 DRAFTER: CH02

Symbol	Label	Image	Quantity	Manufacturer	Catalog Number	Description	Source	Lumens Per LED	LLF	Input Power	Distribution	Notes
	S1		9	Lithonia Lighting	RADPT LED P4 40K PATH MVOLT P4 NLTAR2 DNAXD/R110830504T4 P2 xxx 312 SBF	RADEAN Post-Top with P4 4000K Pathway distribution		9001	0.92	85.68	TYPE III, SHORT, BUG RATING: B4 - U2 - G4	
	S2		2	Lithonia Lighting	WDGE2 LED P2SW 40K 80CRI VW PIR MVOLT SRM DDBXD	WDGE2 LED WITH P2SW - PERFORMANCE PACKAGE, 4000K, 80CRI, VISUAL COMFORT WIDE OPTIC		2073	0.92	14.78	TYPE II, VERY SHORT, BUG RATING: B1 - U0 - G0	

No.	Label	Location		MH
		X	Y	
2	S1	6191792.00	1882738.00	14.00
3	S1	6192010.00	1882722.00	14.00
4	S1	6192105.00	1882722.00	14.00
5	S1	6192186.00	1882738.00	14.00
6	S1	6192211.00	1882670.00	14.00
7	S1	6192256.00	1882673.00	14.00
8	S1	6191750.00	1882776.00	14.00
9	S1	6191724.00	1882751.00	14.00
1	S2	6192174.00	1882751.00	7.00
2	S2	6192152.00	1882742.00	7.00
1	S1	6191907.00	1882724.00	14.00

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	UG
WALKWAY	+	2.1 fc	6.0 fc	0.3 fc	20.0:1	7.0:1	-1.0

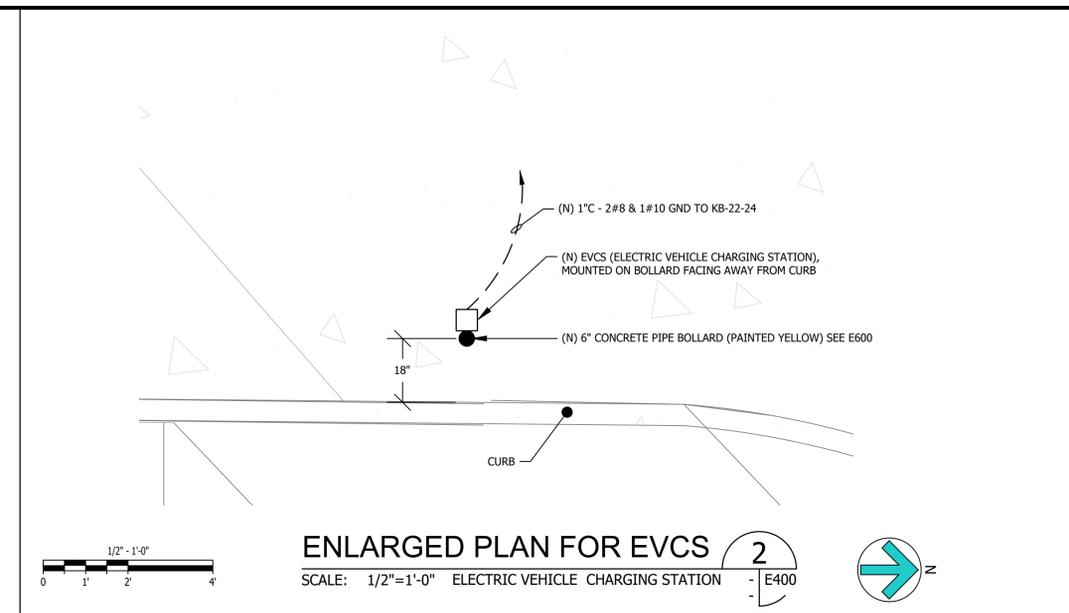


**SITE PHOTOMETRIC PLAN**  
 SCALE: NTS  
 1  
 - E301

APN: \_\_\_\_\_ GP: \_\_\_\_\_ XX-XXXX

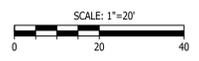
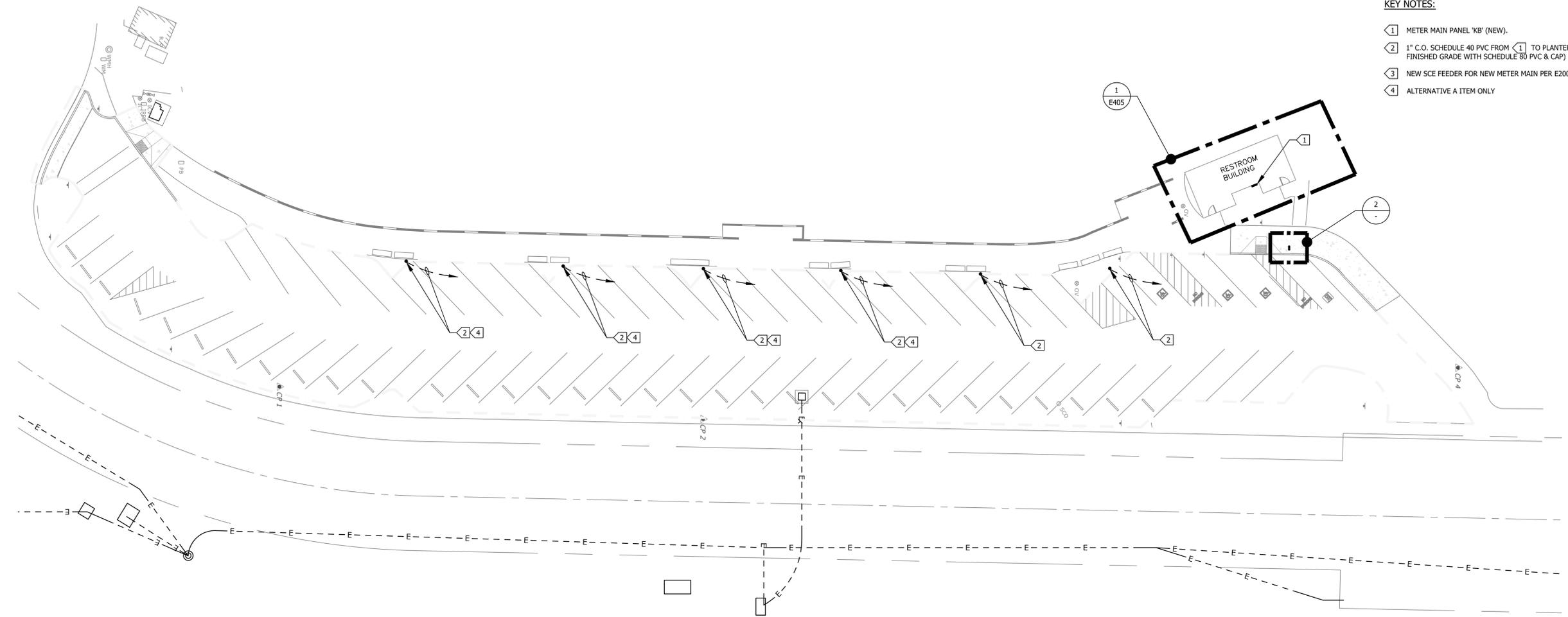
D C B A REVISION DESCRIPTION APP DATE	 <b>LUCCI &amp; ASSOCIATES, INC.</b> CONSULTING ELECTRICAL ENGINEERS 3251 CORTE MALPASO, #511 CARMELLO, CA 93012-8094 (805) 389-6520 FAX (805) 389-6519 <small>LUCCI &amp; ASSOCIATES, INC. reserve their commerial copyright and other property rights in these plans. These plans and drawings are not to be reproduced, changed, or copied in any form or manner whatsoever without first obtaining the expressed written permission and consent of LUCCI &amp; ASSOCIATES, INC. nor are they to be designed to any third party without obtaining said written permission and consent.</small>	DESIGNED: K.L. DRAWN: D.S./L.K. CHECKED: K.L. APPROVED: _____	APPROVED: COUNTY OF VENTURA DATE: _____ BY: _____ DEVELOPMENT & INSPECTION SERVICES	<b>COUNTY OF VENTURA                  PUBLIC WORKS AGENCY                  HARBOR DEPARTMENT</b>	SPEC. NO. _____ PROJ. NO. _____	<b>KIDDIE BEACH                  PARKING LOT REHABILITATION                  SITE PHOTOMETRIC PLAN</b>	SHEET 10 OF 14 DRAWING NO. E301
---	---	--	--	--	------------------------------------	--	--

DATE: 28 September 2023  
 TIME: 10:52 am  
 PATHNAME: G:\23\761\EL\Sheets  
 DRAWING FILENAME: 23-761 E400  
 DRAFTER: CM02



- SHEET NOTES:**
- CONTRACTOR SHALL FIELD VERIFY LOCATION & REQUIREMENTS OF ALL DEVICES REQUIRING ELECTRICAL CONNECTION PRIOR TO BID PROPOSAL, ROUGH-IN AND FINISH.
  - COORDINATE WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS, DEVICES, AND WIRING REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT.
  - CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURERS RECOMMENDATIONS, PER THE NATIONAL ELECTRICAL CODE AND PER LOCAL AUTHORITIES HAVING JURISDICTION.
  - 1\"/>

- KEY NOTES:**
- METER MAIN PANEL 'KB' (NEW).
  - 1\"/>



**NEW SITE POWER PLAN**  
 SCALE: 1"=20'-0"  
 1  
 E400

REVISION	DESCRIPTION	APP	DATE
D			
C			
B			
A			

**LUCCI & ASSOCIATES, INC.**  
 CONSULTING ELECTRICAL ENGINEERS  
 3251 CORTE MALPASO, #511  
 SAN MARINO, CA 91078-8094  
 (805) 389-6520 FAX (805) 389-6519

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 DRAWN: D.S./L.K.  
 CHECKED: K.L.  
 APPROVED: \_\_\_\_\_

APPROVED: COUNTY OF VENTURA  
 DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 DEVELOPMENT & INSPECTION SERVICES

**COUNTY OF VENTURA  
 PUBLIC WORKS AGENCY  
 HARBOR DEPARTMENT**

SPEC. NO. \_\_\_\_\_  
 PROJ. NO. \_\_\_\_\_

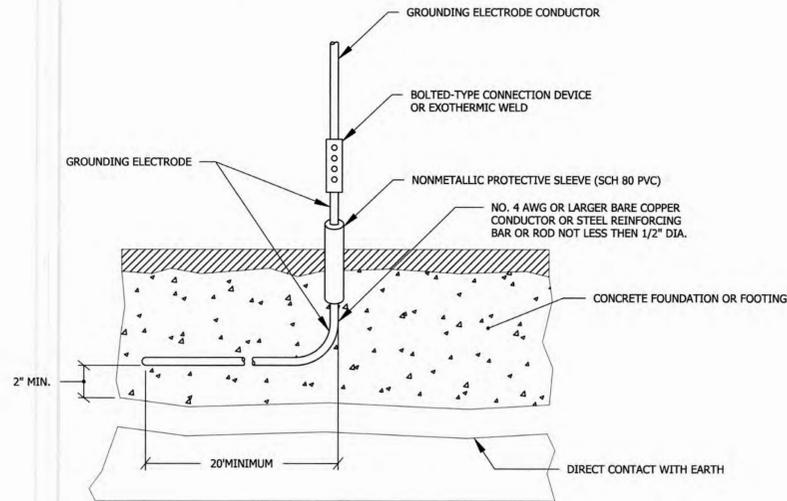
APN: \_\_\_\_\_ GP: \_\_\_\_\_ XX-XXXX

**KIDDIE BEACH  
 PARKING LOT REHABILITATION  
 NEW SITE POWER PLAN**

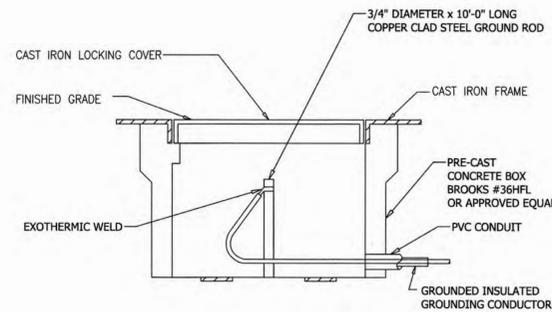
SHEET 11  
 OF 14  
 DRAWING NO.  
 E400

DETAIL NOTES:

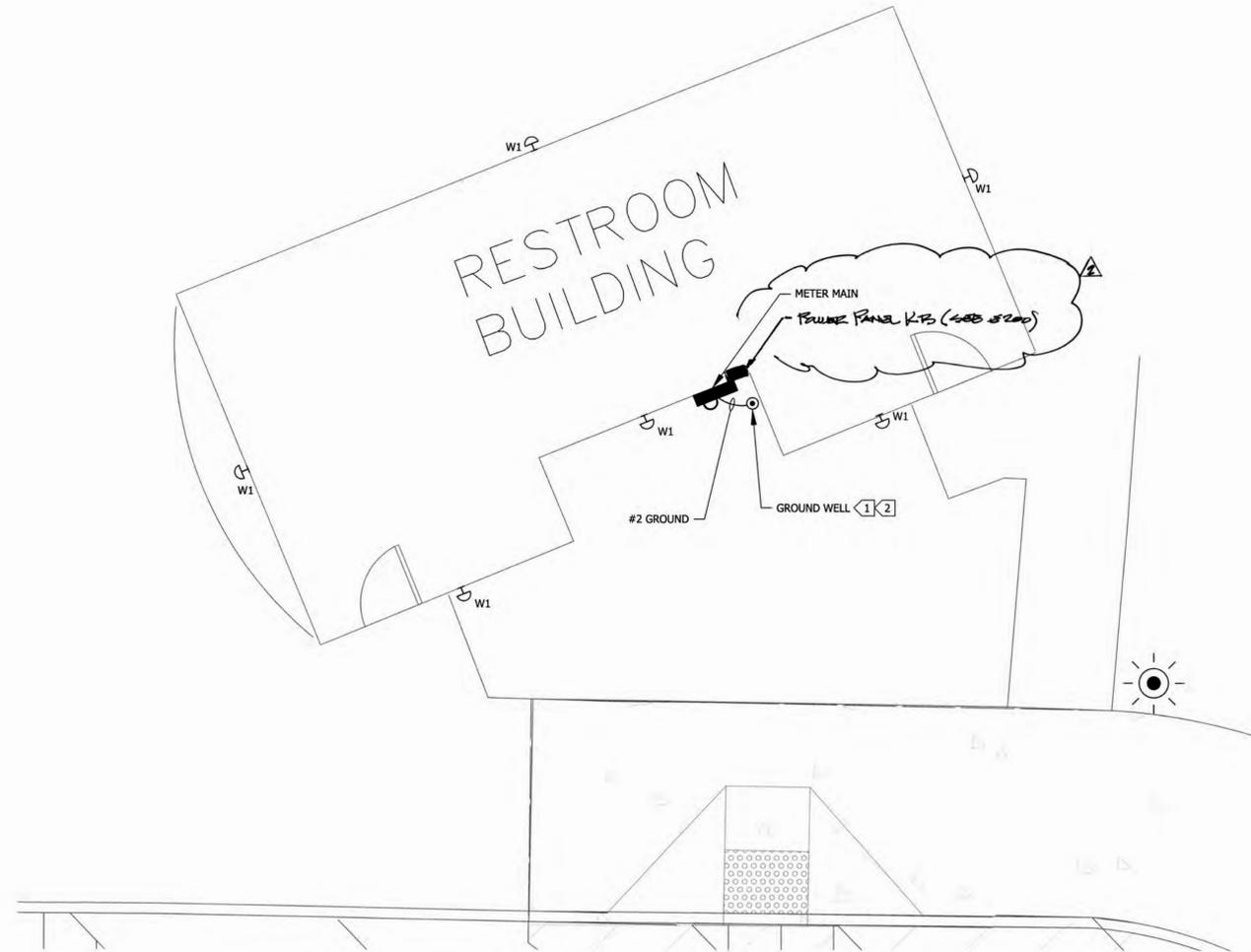
1. CONCRETE-ENCASED ELECTRODE: AN ELECTRODE ENCASED BY AT LEAST 2 INCHES (50.8MM) OF CONCRETE, LOCATED WITHIN AND NEAR THE BOTTOM OF A CONCRETE FOUNDATION OR FOOTING THAT IS IN DIRECT CONTACT WITH THE EARTH, CONSISTING OF AT LEAST 20 FEET (6.1 M) OF ONE OR MORE BARE OR ZINC GALVANIZED OR OTHER ELECTRICALLY CONDUCTIVE COATED STEEL REINFORCING BARS OR RODS OF NOT LESS THAN 1/2 INCH (12.7 MM) DIAMETER, OR CONSISTING OF AT LEAST 20 FEET (6.1 M) OF BARE COPPER CONDUCTOR NOT SMALLER THAN NO. 4, SEE PLANS FOR SIZE OF CONDUCTOR IF GREATER THAN #4.



UFER GROUND DETAIL 3  
SCALE: NONE  
E405



GROUNDING WELL DETAIL 2  
SCALE: NONE  
E405



SCALE: 1/4"=1'-0"  
0 2 4 8

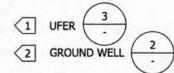
ENLARGED RESTROOM POWER PLAN 1  
SCALE: 1/4"=1'-0"  
E405



SHEET NOTES:

1. CONTRACTOR SHALL FIELD VERIFY LOCATION & REQUIREMENTS OF ALL DEVICES REQUIRING ELECTRICAL CONNECTION PRIOR TO BID PROPOSAL, ROUGH-IN AND FINISH.
2. CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWING. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
3. COORDINATE WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS, DEVICES, AND WIRING REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT.
4. CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURERS RECOMMENDATIONS, PER THE NATIONAL ELECTRICAL CODE AND PER LOCAL AUTHORITIES HAVING JURISDICTION.
5. 1" MINIMUM UNDERGROUND
6. PROVIDE CODE SIZE EQUIPMENT GROUNDING CONDUCTORS IN ALL OCCUPIED CONDUITS.
7. ALL DEVICES WITH IG SUBSCRIPT, ARE ISOLATED GROUND RECEPTACLES WITH SEPARATE IG CONDUCTOR TO PANELBOARD.
8. PROVIDE CONTROLS FOR MECHANICAL EQUIPMENT PER MECHANICAL DOCUMENTS. VERIFY LOCATION AND REQUIREMENTS OF MECHANICAL EQUIPMENT ON MECHANICAL DOCUMENTS.
9. VERIFY LOCATION OF ALL DEVICES ON ARCHITECTURAL PLANS.
10. VERIFY THE EXACT ROUTING OF ALL EXPOSED CONDUIT WITH OWNER PRIOR TO INSTALLATION.

KEY NOTES:



APN: \_\_\_\_\_ GP: \_\_\_\_\_ XX-XXXX

REVISION	DESCRIPTION	APP	DATE
A	ADDENDUM #2		11/9/23

**Lucci & Associates, Inc.**  
CONSULTING ELECTRICAL ENGINEERS  
3251 CORTI HALPAGO, #311  
CARMARILLO, CA 93012-4094  
(805) 389-6520 FAX (805) 389-6510  
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DESIGNED: K.L.  
DRAWN: D.S./L.K.  
CHECKED: K.L.  
APPROVED: \_\_\_\_\_

APPROVED: COUNTY OF VENTURA  
DATE: \_\_\_\_\_  
BY: \_\_\_\_\_  
DEVELOPMENT & INSPECTION SERVICES

**COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
HARBOR DEPARTMENT**

SPEC. NO. \_\_\_\_\_  
PRQJ. NO. \_\_\_\_\_

**KIDDIE BEACH  
PARKING LOT REHABILITATION  
ENLARGED RESTROOM POWER PLAN**

SHEET 12  
OF 14  
DRAWING NO. E405

TIME: 10:52 am  
DATE: 28 September 2023  
PATHNAME: G:\23\761\EL\Sheets  
DRAWING FILENAME: 23-761 E405  
DRAFTER: CM02

G:\23\761\EL\Sheets\23-761 E405.dwg



TIME: 10:53 am

DATE: 28 September 2023

PATHNAME: G:\23\761\EL\Sheets

DRAWING FILENAME: 23-761 E601

DRAFTER: CM02

DATE: 09/28/2023 10:53 AM  
DRAWN: CM02  
CHECKED: K.L.  
DESIGNED: K.L.  
PROJECT: KIDDIE BEACH PARKING LOT REHABILITATION LIGHTING CUT SHEETS

### Accessories

Commercial/Industrial/Outdoor  
W0625: 5000K  
W0626: 4000K  
W0627: 3000K

NOTE:  
1. P1 option not available with sensor/control.  
2. P1 P4 not available with AMB and LW.  
3. AMB and LW always go together.  
4. 700R only available with T3M and T4M.  
5. 347V and 480V not available with 1000W or 2000W.  
6. Not qualified for DLC. Not available with emergency battery backup or sensor/control.  
7. P4 not available in 480V or with sensor/control.  
8. D040 option not available with sensor/control.

### Performance Data

#### Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Contact factory for performance data on any configurations not shown here.

Package	Height	Beam																				
P0	7'0"	T15	826	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		T24	862	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		T44	448	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

### Performance Data

#### Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Contact factory for performance data on any configurations not shown here.

Package	Height	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam				
P1	25'	ASY	2,024	2	1	2	135	1,022	2	2	139	1,065	2	2	122	1,168	2	2	125	1,168	2	2	125	
		PNR	2,529	2	1	2	100	2,613	2	2	103	2,676	2	2	105	2,739	2	2	108	2,778	2	2	108	
		SYM	1,086	2	1	1	121	1,189	2	1	1	126	1,266	2	1	1	129	1,344	2	1	1	132	1,344	2

#### Lumen Ambient Temperature (LAT) Multipliers

Ambient	Multiplier
0°C	3.27
5°C	4.17
10°C	5.07
15°C	5.97
20°C	6.87
25°C	7.77
30°C	8.67
35°C	9.57
40°C	10.47

#### Projected LED Lumen Maintenance

Temp	0	25000	50000	100000
P1	1.00	0.96	0.91	0.82
P2	1.00	0.96	0.91	0.82
P3	1.00	0.96	0.91	0.82
P4	1.00	0.96	0.91	0.82
P5	1.00	0.95	0.89	0.78

#### Electrical Load

Package	Height	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	
P1	500	Input Current	0.22	0.15	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
		System Watts	25	36	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
		System Watts	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39

### Radean Post Top LED Area Luminaire

Category P1  
None  
Type

NOTE: See the Tab key or mouse over the page to see all interactive elements.

#### Specifications

Height: 1.02 ft (0.105 m)  
Length: 24" (61 cm)  
Width: 24" (61 cm)  
H1 Luminaire Height: 4" (10.16 cm)  
H2 Luminaire Height: 26" (66.04 cm)  
Weight: 38 lbs (17.24 kg)

#### Ordering Information

EXAMPLE: RADPT LED P3 30K SYM VOLT PT4 PIR DNAXD

Series	Performance Package	Color Temperature	Distribution	Height	Mounting	Notes
RADPT LED	P1 3,000 Lumens	27K 2700K	SYM Symmetric type I	100"	277'	PT4 Slips into 4" O.D. round metal pole
	P2 5,000 Lumens	30K 3000K	ASY Asymmetric type IV	120"	347'	RADPT20 Slips over 2.375" diameter stem
	P3 7,000 Lumens	35K 3500K	PATH Pathway type II	180"	440'	RADPT25 Slips over 2.75" diameter stem

#### Shipped Installed

Option	Color	Material	Finish
DBDD	Dark bronze	DBDDT	Tinted dark bronze
DBLD	Black	DBLDT	Tinted black
DNAXD	Natural aluminum	DNAXDT	Tinted natural aluminum
DNWDX	White	DNWDXD	Tinted white

### POLES RSS ROUND STRAIGHT STEEL

DESIGN: The standards as shown in this section are design to withstand dead loads and theoretical dynamic loads determined by variable wind speeds as charted with an appropriate gust factor under the following conditions: The luminaire(s) and/or mounting bracket(s) center of gravity is assumed to be located at the pole top for all designs. For purposes of design, effective projected area (EPA) is considered to be the product of the actual projected area and the drag coefficient. The load weights include luminaire(s) and/or mounting brackets. All wind velocities are based on 10 second increments from 80 mph through 150 mph. Standards to be located in areas of known abnormal conditions require special consideration. For example: coastal areas, airports and areas of special winds such as the Chinook type along the eastern slope of the Rocky Mountains.

ANCHOR BOLTS: Anchor bolts are hot dipped galvanized in accordance to ASTM-F1554 A55. Anchor bolts are fabricated from hot rolled steel bar with a minimum yield strength of 55,000 psi. Four anchor bolts are provided per pole. Each anchor bolt is furnished with two hex nuts and two flat washers and one lock washer.

ANCHOR BASE PLATE: The anchor base is fabricated from structural quality hot rolled carbon steel with a minimum yield strength of 36,000 psi. The base plate telescopes the pole shaft and is circumferentially welded top and bottom. The base is provided with slot bolts.

POLE SHAFT: The pole shaft will be a one section design fabricated from standard 11 gauge (0.120") steel or 7 gauge (0.1875"). Each section shall be fabricated from hot rolled carbon steel. Hot dipped galvanized to ASTM A550 grade B with a minimum yield strength of 46,000 psi.

POLE TOP: Each pole will be provided with removable top cap with drill-mount poles or 2-3/8" x 4" pole tenons. (Optional other sizes available)

FINISH: All pole, mounting brackets and platforms are furnished with powder coated or hot dipped galvanized.

MOD Number	Wall	Shaft Size	HT.	Base Plate	Bolt Circle	Anchor Bolts	EPA 100 MPH	MAX WT.
RSS-11-410	1/2"	10"	12'	20"	12"	4	12.2	225#
RSS-11-412	3/4"	12"	12'	20"	12"	4	6.5	165#
RSS-11-414	1"	14"	12'	20"	12"	4	7.7	135#
RSS-11-416	1 1/4"	16"	12'	20"	12"	4	8.0	110#
RSS-11-418	1 1/2"	18"	12'	20"	12"	4	4.8	100#
RSS-11-420	2"	20"	12'	20"	12"	4	3.8	100#
RSS-7-420	180"	4" O.D.	20'	24"	18"	4	7.0	135#
RSS-11-518	1 1/2"	18"	12'	20"	12"	4	5.4	100#
RSS-11-518	1 1/2"	18"	12'	20"	12"	4	8.3	200#
RSS-11-518	1 1/2"	18"	12'	20"	12"	4	6.7	175#
RSS-11-520	120"	5" O.D.	20'	24"	18"	4	5.4	150#
RSS-11-525	20"	20"	20'	24"	18"	4	4.3	125#
RSS-7-518	180"	5" O.D.	20'	24"	18"	4	12.6	325#
RSS-7-520	180"	5" O.D.	20'	24"	18"	4	10.3	275#
RSS-7-525	180"	5" O.D.	20'	24"	18"	4	9.2	250#
RSS-7-618	180"	6" O.D.	25'	24"	18"	4	16.8	375#
RSS-7-620	180"	6" O.D.	25'	24"	18"	4	13.3	325#
RSS-7-625	180"	6" O.D.	25'	24"	18"	4	10.6	300#
RSS-7-628	180"	6" O.D.	25'	24"	18"	4	9.2	250#
RSS-7-630	180"	6" O.D.	25'	24"	18"	4	8.1	225#

### Electrical Load

Package	Height	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	
P0	7.0	0.061	0.040	0.04	0.039	---	---	---	---	0.031	0.021	---	---	---	---	---	---	---	---	---	---
		1.1	0.100	0.064	0.059	0.054	---	---	---	---	0.046	0.031	---	---	---	---	---	---	---	---	---
		15.0	0.168	0.106	0.095	0.083	---	---	---	---	0.067	0.050	---	---	---	---	---	---	---	---	---

### Lumen Output in Emergency Mode (4000K, 80 RCR, T3M)

Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	
E0WH	1,538	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
E0WC	2,230	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

### Projected LED Lumen Maintenance

Temp	0	25000	50000	100000
P0	1.00	0.96	0.91	0.82
P1	1.00	0.96	0.91	0.82
P2	1.00	0.96	0.91	0.82
P3	1.00	0.96	0.91	0.82
P4	1.00	0.95	0.89	0.78

### WDGE2 LED Architectural Wall Sconce Precision Refractive Optic

Category W1  
None  
Type

NOTE: See the Tab key or mouse over the page to see all interactive elements.

#### Specifications

Depth (D1): 7"  
Height (D2): 1.5"  
Width: 9"  
Weight: 11.5"  
Weight (without options): 13.5 lbs

#### WDGE2 LED Family Overview

Luminaire	Optic	Standard	Approx. Lumen (90°)	P0	P1	P2	P3	P4	P5	P6
WDGE2 LED	Visual Comfort	4W	18W	750	1,200	2,000	---	---	---	---
WDGE2 LED	Visual Comfort	10W	18W	750	1,200	2,000	3,000	4,500	6,000	---
WDGE2 LED	Precision Reflective	10W	18W	750	1,200	2,000	3,000	4,500	6,000	---
WDGE2 LED	Precision Reflective	15W	18W	750	1,200	2,000	3,000	4,500	6,000	---
WDGE2 LED	Precision Reflective	25W	18W	750	1,200	2,000	3,000	4,500	6,000	---

#### Ordering Information

EXAMPLE: WDGE2 LED P3 40K 80CRI T3M

Series	Package	Color Temperature	CR	Distribution	Height	Mounting	Notes
WDGE2 LED	P0	27K 2700K	70CR	T15 Type I Short	100"	277'	Shipped included
	P1	30K 3000K	80CR	T24 Type Medium	120"	347'	Shipped separately
	P2	40K 4000K	LW Limited Wavelength	T3M Type Medium	180"	440'	Shipped separately
	P4	AMP Amber	---	T3M Type Medium	---	---	Shipped separately

### Ordering Information

#### Accessories

W0625: 5000K  
W0626: 4000K  
W0627: 3000K

NOTE: See the Tab key or mouse over the page to see all interactive elements.

#### Mounting

Accessory Part Number	Description	For luminaires	Used with Mounting
RSS 11-410-0000	12" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-412-0000	14" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-414-0000	16" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-416-0000	18" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-418-0000	20" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-420-0000	24" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-422-0000	28" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-424-0000	32" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-426-0000	36" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-428-0000	40" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-430-0000	44" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-432-0000	48" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-434-0000	52" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-436-0000	56" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-438-0000	60" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-440-0000	64" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-442-0000	68" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-444-0000	72" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-446-0000	76" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-448-0000	80" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-450-0000	84" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-452-0000	88" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-454-0000	92" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-456-0000	96" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-458-0000	100" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-460-0000	104" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-462-0000	108" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-464-0000	112" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-466-0000	116" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14
RSS 11-468-0000	120" Round Straight Steel - 4" O.D. - Open Top	RADPT LED	P14

### Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WDGE2 LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards.

### Emergency Egress Options

#### Emergency Battery Backup

The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product. All emergency battery backup configurations include an independent secondary driver with an integral relay to immediately detect loss of normal power and automatically energize the luminaire. The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time normal power is lost and maintain a minimum of 60% of the light output at the end of 90 minutes.

Applicable codes: NFPA 70:NEC — section 700.16, NFPA 101 Life Safety Code Section 7.9

### WDGE2 LED Family Overview

Luminaire	Optic	Standard	Approx. Lumen (90°)	P0	P1	P2	P3	P4	P5	P6
WDGE2 LED	Visual Comfort	4W	18W	750	1,200	2,000	---	---	---</	