

# **COLUSA UNIFIED SCHOOL DISTRICT**

## **PROJECT MANUAL**

### **BID PACKAGE #16 – 100**

## **COLUSA HIGH SCHOOL AG BARN SITE UTILITIES**

<b>SCHOOLS</b>
<b>Colusa High School</b> 901 Colus Avenue Colusa, CA 95932

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**Colusa Unified School District**



**Capital Program Management**





# COLUSA HIGH SCHOOL AG BARN SITE UTILITIES

## SECTION 00 0110 TABLE OF CONTENTS

<u>DIVISION</u>	<u>SECTION TITLE</u>	<u># OF PAGES</u>
	<b><u>BIDDING INFORMATION</u></b>	
00 1116	Invitation to Bid	2
00 2113	Instructions to Bidders	6
	<b><u>BIDDING AND CONTRACT FORMS</u></b>	
00 4113	Bid Form	17
00 4313	Bid Security Form	1
00 4336	Proposed Subcontractors Form	3
00 4339	DVBE Statement of Intent Form	1
00 4393	Bid Submittal Checklist	1
00 4513	Bidder's Qualifications	10
00 4519	Non-Collusion Affidavit	1
00 4526	Workers Compensation Certificate Schedule	1
00 4527	Contractor Certification Regarding Attendance at Pre-Bid Site Meeting	1
00 4528	Contractor Certification Regarding DIR Registration Requirements	1
00 4529	Contractor Certification Regarding Child and Family Support Enforcement	1
00 5213	Agreement Form	2
00 6113.13	Performance Bond Form	2
00 6113.16	Payment Bond Form	3
00 6119	Maintenance Bond Form	3
00 6241	Contractor Certification Regarding Background Checks	2
00 6319	Clarification Form	1
	<b><u>GENERAL CONDITIONS</u></b>	
00 7200	General Conditions	43
00 8000	Special Provisions	3
	Exhibit A - Escrow Agreement for Security Deposits in Lieu of Retention	3
	<b><u>GENERAL REQUIREMENTS</u></b>	
01 1100	Summary of Work	
01 2113	Cash Allowances	
01 3119	Project Meetings	
01 3300	Submittal Procedures	
01 3516	Alteration Project Procedures	
01 4300	Quality Assurance	
01 5000	Temporary Facilities and Controls	
01 7123	Field Engineering	
01 7329	Cutting and Patching	
01 7423	Final Cleaning	

# **COLUSA HIGH SCHOOL AG BARN SITE UTILITIES**

## **SECTION 00 0110 TABLE OF CONTENTS**

### **TECHNICAL REQUIREMENTS**

#### **DIVISION 03 - CONCRETE**

03 30 00        Concrete

#### **DIVISION 26 - ELECTRICAL**

26 00 10        Basic Electrical Requirements  
26 05 33        Conduit  
26 05 33        Boxes  
26 05 53        Electrical Identification

#### **DIVISION 31 - EARTHWORK**

31 00 00        Earthwork and Trenching

#### **DIVISION 32 - EXTERIOR IMPROVEMENTS**

32 12 00        Flexible (Asphalt) Paving

#### **DIVISION 33 - UTILITIES**

33 00 00        Site Utilities

END OF TABLE OF CONTENTS

**SECTION 00 1116**  
**INVITATION TO BID**

NOTICE IS HEREBY GIVEN that sealed bids will be received by the Colusa Unified School District herein referred to as "District," at the District Office, 745 10<sup>th</sup> Street, Colusa, CA 95932, until 2:00 o'clock, p.m., March 10, 2016, for furnishing all labor, material, tax, transportation, equipment, and services necessary for the Ag Barn Site Utilities Project at Colusa High School (the "Project(s)") in accordance with the specifications and working details and other contract documents all of which may be examined and copies obtained at/from the District Office at the address referenced above.

Bidders shall submit bids on or before the date and time set forth above and bids shall be opened and tabulated by or on behalf of District at its offices immediately after 2:00 o'clock, p.m., March 10, 2016.

Copies of the contract documents may be obtained by depositing a check made payable to Colusa Unified School District in the amount of \$50.00. Checks must be deposited with the District for each set of contract documents so obtained. The deposit is **NOT REFUNDABLE**. Bidders must attend a pre-bid site meeting/inspection scheduled for February 25, 2016, at 3:00 o'clock p.m. at Colusa High School.

Bids must be from an appropriately licensed contractor, must be sealed and accompanied by a cashier's check, or bid bond made payable to the District in the sum of not less than ten percent (10%) of the amount of the bid. By submitting a bid on the above-referenced project, bidder acknowledges and agrees that in the event bidder is the "successful bidder" but is unable to or refuses to execute a contract for the work, that actual damages to District will be impractical or extremely difficult to fix and therefore, bidder agrees that the sum of not less than ten (10%) percent of the amount of the bid is a reasonable estimate of damages and should the successful bidder fail to or refuse to enter into a written contract within ten (10) days after being requested to do so, the bid bond shall be forfeited to District as the stipulated amount of liquidated damages and not as a penalty. Interested bidders must be appropriately licensed. The Bid Bond form supplied by the Surety is adequate.

The bid opening and hand delivery of bids on the day of the bid opening shall take place and be made at the District Offices of the Colusa Unified School District, 745 10<sup>th</sup> Street, Colusa CA 95932.

Mailed bids must be received by the District prior to the hour and date of the bid opening and shall be addressed to the District Offices of the Colusa Unified School District, 745 10<sup>th</sup> Street, Colusa CA 95932.

Bidders are hereby notified that pursuant to section 1770 et seq. of the Labor Code of the State of California, the Director of Industrial Relations has ascertained the general prevailing rate of per diem wages and the rates for overtime and holiday work in the locality in which the work is to be performed for each craft, classification or type of workman needed to execute the contract which will be awarded to the successful bidder. Copies are on file with and available upon request from the District. While District endeavors to provide current and accurate information regarding the general prevailing rate of per diem wages, the District relies solely on information available to it from the Director of Industrial Relations and therefore, notwithstanding the availability of copies through the District of the prevailing rate of per diem wages, each bidder should verify the accuracy of the information contained in the Director of Industrial Relations reports through the Office of the Director of Industrial Relations.

In accordance with California Civil Code Section 9550, a payment bond is required for a public works contract involving expenditure in excess of twenty-five thousand dollars (\$25,000). The successful bidder will be required to post a performance bond and payment bond to accompany contract in forms specified by the District, in 100% of the amount of the awarded contract.

Bidders must be registered with the Department of Industrial Relations to bid on public work contracts in accordance with California Labor Code 1720, et seq., Section 1725.5.

At the request and expense of the successful bidder, securities equivalent to the amount withheld from progress payments (i.e., retention) may be deposited with the District, or with a state or federally chartered bank

as the escrow agent (the successful bidder shall bear all costs of escrow) and the District shall pay monies which would otherwise be retained to the successful bidder. The form of escrow agreement and securities eligible for investment pursuant to this option shall be governed by Public Contracts Code Section 22300 and Government Code Section 16430.

Bidders shall be required to complete, and file with District, a Statement of Experience, which if required by District, shall be submitted on the form provided by District and may include information regarding the bidder's previous experience on similar projects, experience on public works projects, history of performance and references. If a Statement of Responsibility is required by District, failure to complete any item identified on the Statement of Responsibility may render the bidder's subsequent bid non-responsive and may result in the rejection of bidder's bid.

Bids shall be made upon the form provided by the District or Architect and shall be properly completed with all items filled out; numbers shall be in writing and figures; the signatures of all persons signing shall be in longhand. No bidder may withdraw his/her bid, including Bids for Additive/Deductive Alternates, for a period of sixty (60) days after the time set for the opening of bids, and the Board of Directors will act to accept or reject bids within that period of time.

The Board reserves the right to reject any or all bids, and further reserves the right to waive any informalities or irregularities in the bids.

By order of the Colusa Unified School District Board of Trustees,

Dated: February 9, 2016

Published:

February 12, 2016

February 19, 2016

END OF SECTION

**SECTION 00 2113  
INSTRUCTIONS TO BIDDERS**

To be considered, proposals (bids) must be made in accordance with the following instructions:

1. Proposals/Bids

A. Proposals must be made on the form included in these bid documents. All items on the form shall be filled out, numbers shall be stated in writing and in figures, and the signatures of all individuals shall be in longhand. When requested by the District, satisfactory evidence of the authority of the person signing on behalf of the company shall be furnished. A party's failure to properly sign required forms may result in rejection of the proposal. Each proposal must give the full name and business address of the proposing party.

B. No telegraphic or telephone proposal or modifications to the form will be considered. Proposals shall not contain any recapitulation of the work to be done, and alternative proposals will not be considered unless called for.

C. Should a bidder find a discrepancy in or omissions from the documents, or should he/she be in doubt as to any meaning, he/she shall immediately notify the District **no later than 3/4/2016**, who will send written instructions to all bidders. Bidders must use the "Pre-Bid Clarification Form" provided herein for submission of inquiries. The District will not be responsible for giving any oral instructions. All inquiries will be answered in writing and distributed to all bidders in the form of addenda to the contract prior to the opening bid date.

D. All addenda or bulletins issued during the bidding period shall be included in the proposal and will become a part of the contract for the project.

E. Pursuant to provisions of Section 4100 et seq. of the Public Contract Code, every bidder shall in his/her bid set forth:

a. The name and location of the place of business of each subcontractor who will perform work or labor or render service to the bidder in or about the work in an amount in excess of one-half of one percent of the bidder's total work.

b. The portion of the work that will be done by each subcontractor. If the bidder fails to specify a subcontractor for any portion of the work to be performed under the contract in excess of one-half of one percent of the bidder's total bid, he/she agrees to perform that portion himself/herself. The successful bidder shall not, without the consent of the District, either:

i. Permit any subcontract to be assigned or transferred or allow the work to be performed by anyone other than the original subcontractor listed in the bid.

ii. Other than in the performance of a change order, sub-let or subcontract any portion of the work in excess of one-half of one percent of the total bid as to which his/her original bid did not designate a subcontractor.

**NOTICE: Bidders shall be required to complete the Statement of Experience and, for each proposed subcontractor, require completion of the Statement of Experience Form included in the Bid Package. Bidders Statement of Experience forms shall be submitted concurrently with submission of bids in accordance with the Notice Inviting Bids. A bidder who is notified that that he/she/it is apparent low-bidder may be required, within forty-eight (48) hours of being notified by the District that he/she/it is the apparent low bidder, submit the Statement of Experience Form(s) for all listed subcontractors. Failure to timely submit a Subcontractor Statement of Experience forms may result in the rejection of a bid.**

c. Proposals/bids must be accompanied by a cashier's check, or bid bond, for an amount not less than ten percent (10%) of the bid, made payable to the order of the District. A bid bond

shall be secured from a surety company satisfactory to the District. The Bid Bond form supplied by the Surety is adequate. The check or bond shall be given as a guarantee that the bidder will enter into a contract if awarded the work. If the successful bidder refuses to enter into a contract within ten (10) days after being requested to do so, said bond or check shall be forfeited to the District as the stipulated amount of liquidated damages and not as a penalty.

d. Proposals must include all applicable taxes in the Proposal amount. The bidder is solely responsible for all taxes.

2. Deadline for Receipt of Proposals

Proposals must be submitted in a sealed opaque envelope clearly marked "Bid Proposal – Do Not Open" and must be received by the Colusa Unified School District, 745 10<sup>th</sup> Street, Colusa CA 95670; by 2:00 PM on 3/10/2016. Proposals received after the aforementioned time may not be considered.

3. Mandatory Pre-Bid Meeting/Walk-Through

The District holds a mandatory pre-bid walk through for all bidding contractors. All contractors who plan to bid on the Project must attend this meeting and the minutes contain an attendance log, which must be signed by the contractors present. Contractors who do not attend this pre-bid meeting/walk through may have their bid deemed non-responsive and rejected by the District. The Mandatory Pre-Bid meeting/walk through for this Project will be held at the date and time set forth in the Notice Inviting Bids.

4. Award or Rejection of Bids/Alternates

The Contract, if awarded, will be awarded to the lowest responsible bidder. The lowest responsible bidder shall be determined based on the lowest base bid, excluding consideration of the prices on the additive or deductive items that is in compliance with these instructions and the advertised Notice Inviting Bids or in a manner that prevents information that would identify bidders from being revealed to the public entity before ranking of bidders from lowest to highest, including consideration of the prices on the additive or deductive items. The competency and the responsibility of bidders and of their proposed subcontractors will be considered in making the award of the Contract. Any bidder before being awarded a contract may be required to furnish evidence satisfactory to District that he/she and his/her proposed contractors have sufficient means and experience in the type of work called for and to assure completion of the contract in a satisfactory manner.

The District reserves the right to reject the bid of any bidder based on non-responsibility and/or who has previously failed to perform properly on contracts with the District. The District reserves the right to reject any or all bids or alternates and waive any informality or irregularity in the bids or in the bidding.

5. Verification of Low Bidder

Once the District has determined which contractor is the apparent low bidder and is deemed to be responsible, the District shall notify the apparent low bidder and request that the apparent low bidder confirm his/her/its bid, in writing, to the District within forty-eight (48) hours of being notified by the District that he/she/it is the apparent low bidder. Failure of the apparent low bidder to timely confirm his/her/its bid may result in the District finding the apparent low bidder's bid non-responsive.

6. Bonds

The successful bidder shall furnish a Faithful Performance Bond and payment bond in the form set forth in the contract documents and included herewith.

7. Execution of Contract

The successful bidder shall, within ten (10) calendar days of receiving this notification of award of the contract, sign and deliver to the District the executed contract. In the event the party to whom an award is made fails or refuses to execute the contract within ten (10) calendar days, the District may seek damages for breach of the contract, and may award the contract to one of the other responsible parties.

8. Withdrawal of Proposal

Bids may be withdrawn by the bidder prior to the time fixed for opening of bids. Thereafter the proposals may not be withdrawn for a period of sixty (60) days.

9. Anti-Discrimination

The successful bidder shall not discriminate against any employee or applicant for employment because of race, creed, color, national origin or ancestry, physical handicap, mental condition, marital status or sex. The contractor will comply with all provisions of Executive Order No. 10925 of March 6, 1961, as amended, and all rules and regulations and relevant orders of the President's Committee on Equal Employment Opportunity created thereby. The Contractor shall also comply with the California Fair Employment and Housing Act. (Gov. Code §12900 et seq.)

10. Worker's Compensation

In accordance with the provisions of Section 3700 of the Labor Code, every contractor is required to secure payment of compensation to his employees.

Each contractor to whom a public works contract is awarded is required to sign and file with the awarding body the following certification prior to performing the work of the contract, a copy of which is enclosed herewith.

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.

11. Compliance with Laws and Regulations

The successful bidder/contractor shall comply with all laws and regulations governing contractor's performance on a public project including, but not limited to, anti-discrimination laws, workers' compensation laws, prevailing wage laws set forth in Labor Code Section 1770 et seq., licensing laws and registration to bid on a public work contract set forth in Labor Code Section 1720 et seq.; 1725.5.

12. License Information

Each bidder shall list his/her license number, license type and expiration date. Each bidder must be a contractor properly licensed to perform the work covered by the bid documents upon which it is bidding with an active license in good standing as of the date of receipt of bids. The license must be issued by the Contractors' State License Board (CSLB) of California and must be maintained in good standing throughout the term of the Contract.

12.1 All subcontractors must be properly licensed by the CSLB to perform the work they will be undertaking and must maintain their licenses in good standing throughout the terms of the Contract.

12.2 If two or more business entities submit a bid on a Project as a Joint Venture, or expect to submit a bid as part of a Joint Venture, each entity within the Joint Venture must be properly licensed by the CSLB and the bid proposal must list each entities license number, license type and expiration date on the bid proposal.

13. Non-Collusion Affidavit

Bidders shall submit a completed non-collusion affidavit, in a form acceptable to District, a copy of which is attached hereto, with their bid.

14. Fingerprinting/Criminal Background Certification

The successful bidder may be required to submit a Fingerprinting/Criminal Background Certification in a form acceptable to District, a copy of which is attached hereto, with their bid.

15. Site Visit Certification

Bidders shall submit a completed site visit certification, in a form acceptable to District, a copy of which is attached hereto, with their bid.

16. Child Support Compliance

For every contract in excess of \$100,000.00, only the successful bidder will be required to acknowledge that he/she is aware of the State's policy regarding the importance of child and family support obligations and that to the best of his/her knowledge, he/she is fully complying with the earnings assignment order of all employees and providing the names of all new employees to the New Hire Registry maintained by the Employment Development Department. Bidders shall submit a completed child support compliance acknowledgment, in a form acceptable to the District.

17. Estimated Quantities

If the Bidding Documents provide information concerning estimated quantities of work to be performed, the estimated quantities are approximate only, being given as a basis for the comparison of bids. District does not, expressly or by implication, agree that the actual amount of work will correspond with the estimate, and District reserves the right to increase or decrease the amount of any class or portion of the work, as may be deemed necessary or advisable by District, with no adjustment to the unit price except as expressly provided in the Contract Documents.

18. Bid Protest Procedure

Any protest relating to the form or content of the bidding or Contract Documents must be submitted in writing to District at least ten (10) business days before the original date set for bid opening in the Notice to Bidders. Any bidder who submits a bid shall be deemed to have waived any protest to the form or content of the bidding or Contract Documents.

Any bid protest relating to the award of the Contract for the Project, other than a protest addressing the form or content of the bidding or Contract Documents, must be submitted in writing to District so that it is received by District before 5:00 p.m. on the third business day following the bid opening. Failure to deliver a written protest within the designated period shall constitute a waiver of the bidder's right to protest District's determination and intended action, whether administratively or through legal proceedings, and shall render District's action relative to the bids final, binding, and unappealable by such bidder.

The initial protest document shall contain a complete statement of the basis for the protest, including the legal and factual basis for the action requested. The protest shall refer to the specific portion(s) of the Contract Documents upon which the bidder relies in support of the protest and include as exhibits all documents relied upon in support of the protest. The protest shall include the name, address, telephone, and fax numbers of the protesting party and any person representing the protesting party.

The party filing the protest shall concurrently transmit a copy of the initial protest document and any attached documentation or exhibits to all other known bidders at the address specified on District's plan holder list. The documents shall be transmitted by fax or overnight delivery service.

The procedure and time limits set forth in this paragraph are mandatory and are the bidder's sole and exclusive remedy in the event of bid protest. Failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a Government Code claim or legal proceedings.

19. Certification of All Claims Submitted/Notification of Enforcement of False Claims Act

The successful Bidder will be required to certify the accuracy of all claims submitted to the District, as part of the submission of such claim(s). Each claim must be accompanied by the following certification:

I have personal knowledge of the contents of the claim being submitted to the District. I have personal knowledge that the facts contained within this claim and any supporting documentation are true and/or I am informed and believe that they are true. I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.



Executed this \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_ in \_\_\_\_\_ California.

In addition, Contractor expressly acknowledges that it is aware of the provisions of the state and federal False Claims Act and is also aware that if a false claim is knowingly submitted (as the term "Claim" and "Knowingly" are defined in California Government Code Section 12650 et seq.), the District will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the Contractor may be subject to criminal prosecution.

The False claims listed in the California FCA are as follows:

1. Knowingly presents or causes to be presented to an officer or an employee of the state or any political subdivision thereof, a false claim for payment or approval. (Cal. Government Code 12651(a)(1))
2. Knowingly makes uses or causes to be made a false record or statement to get a false claim paid or approved by the state or by any political subdivision. (Cal. Government Code 12651(a)(2))
3. Conspires to commit a violation of the False Claims Act. (Cal. Government Code 12651(a)(3))
4. Has possession, custody, or control of public property or money used or to be used by the state or by any political subdivision and knowingly delivers or causes to be delivered less property than the amount for which the person receives a certificate or receipt. (Cal. Government Code 12651(a)(4))
5. Is authorized to make or deliver a document certifying receipt of property used or to be used by the state or by any political subdivision and knowingly makes or delivers a receipt that falsely represents the property used or to be used. (Cal. Government Code 12651(a)(5))
6. Knowingly buys, or receives as a pledge of an obligation or debt, public property from any person who lawfully may not sell or pledge the property. (Cal. Government Code 12651(a)(6))
7. Knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid or decrease an obligation to pay or transmit money or property to the state or to any political subdivision. (Cal. Government Code 12651(a)(7))
8. Is a beneficiary of an inadvertent submission of a false claim to the state or a political subdivision, subsequently discovers the falsity of the claim, and fails to disclose the false claim to the state or the political subdivision within a reasonable time after discovery of the false claim." (Cal. Government Code 12651(a)(8)) (Note: This places a burden on general contractors to exercise due diligence in reviewing subcontractor claims before passing them through to the district. If a general contractor passes through a claim and then later discovers that it is false, the general contractor must notify the district and either withdraw the claim or be subject to false claims liability.)

For illustrative purposes only, the following may constitute a violation of the False Claims Act:

1. Falsification of hours set forth in timecards;
2. Overstating wage rates;
3. Submitting billings for costs or services not actually incurred on the project;
4. Altering invoices submitted by subcontractors or suppliers;
5. Double billing for the same work;
6. Colluding with third parties to submit overstated charges;
7. Substitution of cheaper or substandard materials;

8. Invoicing for unallowable costs;
9. Submitting false subcontractor pass through claims;
10. False certifications in any area required by contract, state or federal law;
11. Deductive change orders (reverse false claim);
12. False certification for equitable reimbursement of change orders;
13. Misrepresenting that work meets contract requirements;
14. Misrepresenting that contractor is paying applicable prevailing wages;
15. Misrepresenting that contractor is paying all of its subcontractors appropriately;
16. Misrepresenting that work is subject to reimbursement, etc.

20. Indemnity

The successful proposing party must hold harmless and fully indemnify the District, its Board of Directors, officers, employees, and agents from all damages or claims for damages, costs, or expenses that may at any time arise out of the party's performance of, or failure to perform, acts required by the contract documents.

END OF SECTION

**SECTION 00 4113  
BID FORM**

Bid Opening Date: 3/10/2016  
Hour of Bid Opening: 2:00 PM

TO THE HONORABLE:

Board of Trustees  
Colusa Unified School District  
745 10<sup>th</sup> Street  
Colusa CA 95932

Dear Board Members:

Pursuant to the Notice Inviting Bids, and in compliance with the instructions to Bidders, having reviewed all contract documents and the site(s) of the work, the undersigned hereby proposes to furnish all work, labor, materials, transportation, equipment and services necessary for the Ag Barn Site Utilities project at Colusa High School all in accordance with the specifications and working details and all other contract documents.

In submitting this Bid, Bidder represents that:

(a) Bidder has examined copies of all Contract Documents, including the Invitation to Bid, the Instructions to Bidders, and the following addenda:

Addenda Numbers: \_\_\_\_\_

(b) Bidder has examined the site and locality where the work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the work and has made such independent investigations as Bidder deems necessary;

Bidder will complete the work for the following price(s):

**Item A:** All associated work in the Contract Documents enumerated in Article 2 of the Agreement Form **specific to Colusa High School.**

1) Item A Bid Amount (in words): \_\_\_\_\_

2) Item A Bid Amount (in numbers): \$ \_\_\_\_\_

**Item B: Underground Utilities Allowance** to be used at the Owner's sole discretion

in the amount of \$ 2,000.00

**TOTAL** Bid Amount equals sum of Items A-B, above

3) **TOTAL Bid Amount (in words):** \_\_\_\_\_

4) **TOTAL Bid Amount (in numbers):** \$ \_\_\_\_\_

If awarded the contract, the undersigned will begin work not later than ten (10) days after being notified in writing by the District's Representative to commence work on the project. The undersigned will complete the work above described within sixty (60) calendar days after the date of commencement.

Enclosed is a ( ) cash deposit, ( ) cashier's check, or ( ) surety bid bond (check as appropriate) of the \_\_\_\_\_ (Name of Surety if bid bond submitted) in an amount not less than ten (10%) percent of the amount bid.

The undersigned agrees that the enclosed cash deposit, cashier's check, or surety bond shall be left on deposit with Colusa Unified School District and that its amount is the measure of the damages which the District will sustain by failure of the undersigned to sign and deliver the above agreement and bonds within ten (10) days of written notice of the award of the contract and that in the event the undersigned fails to or refuses to enter into a written contract within ten (10) days after being requested to do so, said money, check, or surety bond shall be forfeited to District as the stipulated amount of liquidated damages and not as a penalty.

By submission of a bid, a bidder certifies possession of a duly issued and valid contractor's license issued by the State of California, which license authorizes bidder to contract to perform the type of work required by the specifications. Should the bidder fail to provide the information requested below concerning State Contractor's license number and classification, the District may reject the bid as non-responsive.

CONTRACTOR: \_\_\_\_\_

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

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

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

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

State License No: \_\_\_\_\_

State License Classification: \_\_\_\_\_

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

DIR Registration No. \_\_\_\_\_

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

Dated this \_\_\_\_ day of \_\_\_\_\_, 2016

**(Note to Bidders:** No bid shall be valid unless signed by the person making the bid. If the party is an individual, the same shall be signed by the individual; if the party is a partnership, the same shall be signed by a valid partner; and if the party is a corporation, the same shall be signed by its properly authorized officer or officers.)

**SECTION 00 4313  
BID SECURITY FORM**

(USE ONLY WHEN NOT USING A BID BOND)

Accompanying this proposal is a cashier's check payable to the order of the Colusa Unified School District or a certified check payable to the order of the Colusa Unified School District in an amount equal to ten percent (10%) of the base bid and alternates (\$\_\_\_\_\_).

The proceeds of this check shall become the property of said Owner, if, this proposal shall be accepted by the Owner through the Owner's Board of Directors, and the undersigned fails to execute a Contract with and furnish the sureties required by the Owner within the required time; otherwise, said check is to be returned to the undersigned.

\_\_\_\_\_  
Bidder

Note: Use this form, in lieu of Bid Bond form, when a cashier's check or certified check is accompanying the bid

**SECTION 00 4336**  
**PROPOSED SUBCONTRACTORS FORM**

**TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID**

In compliance with the Subletting and Subcontracting Fair Practices Act (California Public Contract Code Sections 4100 et. seq.) and any amendments thereof, each Bidder shall set forth below: (a) the name, license number, and location of the place of business of each subcontractor who will perform work or labor or render service to the Contractor, who will perform work or labor or work or improvement to be performed under this Contract, or a subcontractor licensed by the State of California who, under subcontract to the Contractor, specially fabricates and installs a portion of the work or improvements according to detailed drawings contained in the Plans and Specifications in an amount in excess of one-half of one percent of the Contractor's total bid; and (b) the portion and description of the work which will be done by each subcontractor under this Act. The Contractor shall list only one subcontractor for each such portion as is defined by the Contractor in this bid. All subcontractors shall be properly licensed by the California State Licensing Board.

If a Contractor fails to specify a subcontractor, or if a Contractor specifies more than one subcontractor for the same portion of work to be performed under the Contract in excess of one-half of one percent of the Contractor's total bid, the Contractor shall be deemed to have agreed that the Contractor is fully qualified to perform that portion, and that the Contractor alone shall perform that portion.

No Contractor whose bid is accepted shall (a) substitute any subcontractor, (b) permit any subcontractor to be voluntarily assigned or transferred or allow the relevant portion of the work to be performed by anyone other than the original subcontractor listed in the original bid, or (c) sublet or subcontract any portion of the work in excess of one-half of one percent of the Contractor's total bid where the original bid did not designate a subcontractor, except as authorized in the Subletting and Subcontracting Fair Practices Act.

Subletting or subcontracting of any portion of the work in excess of one-half of one percent of the Contractor's total bid where no subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after a finding, reduced to writing as a public record, of the authority awarding this Contract setting forth the facts constituting the emergency or necessity.

All subcontractors (of any tier) performing any portion of the Work must comply with the Labor Code sections 1725.5 and 1771.1 and must be properly and currently registered with the California Department of Industrial Relations and qualified to perform public works pursuant to Labor Code section 1725.5 throughout the duration of the Project.

**NOTE:** If alternate bids are called for and bidder intends to use different or additional subcontractors on the alternates, a separate list of subcontractors must be provided for each such Alternate.

**SECTION 00 4336  
PROPOSED SUBCONTRACTORS FORM**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

<b>Description &amp; Portion of Work</b>	<b>Name of Subcontractor</b>	<b>Location &amp; Place of Business</b>	<b>License Type and Number</b>	<b><i>E-Mail &amp; Telephone*</i></b>	<b><i>DIR Registration Number*</i></b>

<b>Description &amp; Portion of Work</b>	<b>Name of Subcontractor</b>	<b>Location &amp; Place of Business</b>	<b>License Type and Number</b>	<b><i>E-Mail &amp; Telephone*</i></b>	<b><i>DIR Registration Number*</i></b>

\* This information must be provided at the time of submission of bid or must be provided within 24 hours after the time set for the opening of bids. Bidders who choose to provide this information within 24 hours after the time set for the opening of bids are solely responsible to ensure the District receives this information in a timely manner. The District is not responsible for any problems or delays associated with emails, faxes, delivery, etc. Absent a verified fax or email receipt date and time by the District, the District's determination of whether the information was received timely shall govern and be determinative. Bidder shall not revise or amend any other information in this form submitted at the time of bid. The information submitted at the time of bid shall govern over any conflicts, discrepancies, ambiguities or other differences in any subsequent Subcontractor Designation Forms submitted by the bidder.

Proper Name of  
Bidder:

Date:

Name:

Signature of Bidder  
Representative:

Address:

Phone:



**SECTION 00 4339  
CONTRACTOR'S CERTIFICATION REGARDING  
DISABLED VETERANS OF  
BUSINESS ENTERPRISE CERTIFICATION REQUIREMENTS**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

Contractor hereby acknowledges that in accordance with Education Code Section 17076.11 that any school district using funds allocated pursuant to Chapter 12.5, Leroy F. Greene School Facilities Act, for the construction or modernization of a school building shall have a participation goal of at least 3% per year, of the overall dollar amount expended each year by the school district for Disabled Veteran Business Enterprises. If this contract is funded all or in part by Chapter 12.5 funding, contractor will be notified accordingly and shall provide certification of all joint venture partners, contractors, subcontractors, material men and suppliers that are certified as Disabled Veterans Business Enterprise and/or certify its good faith effort to advertise and retain Disabled Veterans Business Enterprises for this project.

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

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

Title \_\_\_\_\_

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

**SECTION 00 4393  
BID SUBMITTAL CHECKLIST**

(For Contractor's use and reference only. Additional documents may be required so bidders should carefully review all Contract Documents and Bid Documents)

- ☐ Bid Form
- ☐ Bid Bond (or Bid Guarantee form if Security is other than Bid Bond)
- ☐ Proposed Subcontractors Form
- ☐ Contractor's Certification Regarding DVBE Certification Requirements
- ☐ Bidder's Statement of Experience (Include separate Statement for each subcontractor if applicable)
- ☐ Non-Collusion Affidavit
- ☐ Contractor Certification Regarding Attendance at Pre-Bid Site Meeting
- ☐ Contractor Certification Regarding DIR Registration Requirements

**SECTION 00 4513  
STATEMENT OF EXPERIENCE**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

**(If additional space is required for your response,  
please use the attached continuation page)**

1. Name of Firm: \_\_\_\_\_
2. Address of Firm: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

3. How many years has your organization been in business as a Contractor under its present name?  
\_\_\_\_\_ years

Under what other names has your organization operated?

4. Type of Organization:
- ☐ Corporation
  - ☐ Partnership
  - ☐ Individual
  - ☐ Joint Venture
  - ☐ Other

5. If a corporation, answer the following:

- a. Date of Incorporation: \_\_\_\_\_
- b. State of Incorporation: \_\_\_\_\_
- c. President's name: \_\_\_\_\_
- d. Vice President's name(s): \_\_\_\_\_
- e. Treasurer's name: \_\_\_\_\_
- f. List of shareholders and their respective ownership interest:

Name

Ownership Interest


6. If an individual or partnership, answer the following:

- a. Date organized: \_\_\_\_\_

b. Name and address of all Partners:

<u>Name</u>	<u>Title</u>	<u>General/Limited Partner</u>
_____		
_____		
_____		
_____		

7. If other than a corporation or partnership, describe organization and name principals (i.e., subsidiary, joint venture, etc.):

a. List all joint venture arrangements in which organization has engaged during the past 3 years, and the projects completed (and their location) under such agreements.

8. List the state and categories which your organization is legally qualified to do business. Indicate registration or license numbers if applicable. List states in which partnership or trade name is filed.

<u>State</u>	<u>Category</u>	<u>License/Registration No.</u>
_____		
_____		
_____		
_____		
_____		

9. Specify type and percent of work performed with own workforce.

10. Have you ever failed to complete any work awarded to you? If so, note when, where and why and provide the name and business address of Owner.

11. Within the past five years, has any officer or partner of your organization ever been an officer or partner of another organization when it failed to complete a construction contract? If so, attach a separate sheet of explanation?

○ Attached

12. Within the past ten years, has the Contractor or officers of principals of the organization been defaulted on a public works project? If so, note when, the project name, the project owner and under what circumstances.

13. Has the Contractor or officer or principals of the organization filed for, or been adjudged bankrupt, either voluntary or involuntary bankruptcy, within the past 10 years? If so, give the case number and the date on which the petition was filed, and attach a copy of the Bankruptcy Court's discharge order, or of any other document that ended the case, if no discharge order was issued.
14. Has the Contractor or officer or principals of the organization ever had a license suspended? If so, give the date, place, under what name and under what circumstances.
15. Has the Contractor or officer or principals of the organization ever been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any government agency or public works project for any reason? State whether the firm involved was the firm applying for pre-qualification here or another firm. Identify by name of the company, the name of the person within your firm who was associated with that company, the year of the event, the owner of the project, the project and the basis for the action.
16. In the last five years has your firm been denied an award of a public works contract based on a finding by a public agency that your company was not a responsible bidder? If so, identify the year of the event, the owner, the project and the basis for the finding by the public agency.
17. At any time in the last five years has your firm been assessed and paid liquidated damages after completion of a project under a construction contract with either a public or private owner? If so, identify

all such projects by owner, owner's address, and the date of completion of the project, amount of liquidated damages assessed and all other information necessary to fully explain the assessment of liquidated damages.

18. Has the Contractor or officer or principals of the organization been indicted for or convicted of any felony within the past 10 years? If so, give for each case (1) date (2) charge (3) place (4) court and (5) action taken. Attach any explanation deemed necessary.
  - Attached
19. On a separate sheet (form attached), list all construction projects your organization has in progress giving the name and location of the project, owner, architect, contract amount, percent complete and scheduled completion date.
  - Attached
20. On a separate sheet (form attached), list all public works project your organization has completed in the past ten years, giving the name of the project, location, owner, architect, contract amount, percent complete and completion date.
  - Attached
21. On a separate sheet (form attached), list all public works projects your organization has in progress giving the name of the project, location, owner, architect, contract amount, percent complete and completion date.
  - Attached
22. On a separate sheet, list the construction experience of key individuals in your organization. Key personnel shall include principal(s), or officer(s) having overall project responsibility, as well as on-site project manager(s), superintendent(s), project controls engineer(s), schedule manager(s), and all others involved in the management of the project.
  - Attached

23. Give the name and address of all bonding companies and agents with whom Contractor has done business during the last 5 years.

<u>Bonding Co.</u>	<u>Address</u>	<u>Agent</u>	<u>Amount of Bonding</u>
--------------------	----------------	--------------	--------------------------

24. If your firm was required to pay a premium of more than one percent (1%) for a performance and payment bond on any project(s) on which your firm worked at any time during the last three years, state the percentage that your firm was required to pay. You may provide an explanation for a percentage rate higher than one per cent, if you wish to do so.

25. During the last five years, has your firm ever been denied bond coverage by a surety company, or has there ever been a period of time when your firm had no surety bond in place during a public construction project when one was required? If so, provide details indicating the date when your firm was denied coverage and the name of the company or companies which denied coverage, the reason for denial of coverage and the period during which you had no surety bond in place.

26. Has the Contractor or officers or principals of the organization been involved in litigation or other claims regarding any project worked on in the past five years? If so, please state the following:

<u>Plaintiff</u>	<u>Defendant</u>	<u>Amount</u>	<u>Court</u>	<u>Disposition</u>
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27. Are there now pending or in the preceding five years have there been any actions against you or have you had to pay back wages, either because of a settlement or judgment with the California State Department of Labor Standards Enforcement for failure to pay prevailing wages? If none, so state.

<u>Name of Project</u>	<u>Date Filed</u>	<u>Disposition</u>	<u>Explain</u>
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28. At any time during the past five years, has any surety company made any payments on your firm's behalf as a result of a default, to satisfy any claims made against a performance or payment bond issued on your firm's behalf, in connection with a construction project, either public or private? If so, state the amount of each such claim, the name and telephone number of the claimant, the date of the claim, the grounds for the claim, the present status of the claim, the date of resolution of such claim if resolved, the method by which such was resolved if resolved, the nature of the resolution and the amount, if any, at which the claim was resolved.

29. In the last five years has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm? If so, state the name of the insurance carrier, the form of insurance and the year of the refusal and the reason for refusal.

30. Please list the Financial Institution where line(s) of credit have been established:

<u>Name</u>	<u>Contact Pers.</u>	<u>Phone</u>	<u>Amount</u>
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Attachment for Item 19

<b>PROJECT NAME</b>	<b>NAME OF OWNER AND ARCHITECT WITH CONTACT AND PHONE #</b>	<b>ADDRESS OF OWNER AND ARCHITECT</b>	<b>CONTRACT AMOUNT</b>	<b>% COMPL.</b>	<b>SCHED. COMPL. DATE</b>
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Attachment for Item 20

<b>PROJECT NAME</b>	<b>NAME OF OWNER AND ARCHITECT WITH CONTACT AND PHONE #</b>	<b>ADDRESS OF OWNER AND ARCHITECT</b>	<b>CONTRACT AMOUNT</b>	<b>% COMPL.</b>	<b>SCHED. COMPL. DATE</b>
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Attachment for Item 21

<b>PROJECT NAME</b>	<b>NAME OF OWNER AND ARCHITECT WITH CONTACT AND PHONE #</b>	<b>ADDRESS OF OWNER AND ARCHITECT</b>	<b>CONTRACT AMOUNT</b>	<b>% COMPL.</b>	<b>SCHED. COMPL. DATE</b>
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**CERTIFICATION**  
**FOR**  
**STATEMENT OF EXPERIENCE**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

State of California  
County of \_\_\_\_\_

(Name) \_\_\_\_\_, declares under penalty of perjury:

That(s) he as (title) \_\_\_\_\_, is the party making the statement of experience and that such statement is true and correct.

Sign on appropriate line below and notarize:

\_\_\_\_\_

Signature of: Bidder, if the Bidder is an individual;

\_\_\_\_\_

Partner, if the Bidder is a partnership;

\_\_\_\_\_

Officer, if the Bidder is a Corporation.

Subscribed and sworn to before me

this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

My commission expires \_\_\_\_\_, 20\_\_.

NOTARY PUBLIC

**SECTION 00 4519  
NON-COLLUSION AFFIDAVIT**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

STATE OF \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss.

\_\_\_\_\_, being first duly sworn, deposes and says that he or she is \_\_\_\_\_ of \_\_\_\_\_ the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or a sham bid; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that 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, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and further, that 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, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member of agent thereof to effectuate a collusive or sham bid.

Subscribed and sworn to (or affirmed) before me this \_\_\_\_\_ day of \_\_\_\_\_, 2016 by \_\_\_\_\_ personally known to me, or proved to me on the basis of satisfactory evidence, to be the person(s) who appeared before me.

Signature \_\_\_\_\_

**SECTION 00 4526**  
**WORKER'S COMPENSATION CERTIFICATE SCHEDULE**

TO BE EXECUTED BY WINNING BIDDER AND  
SUBMITTED WITH SIGNED CONTRACT

In accordance with the provisions of Section 3700 of the Labor Code, every contractor is required to secure payment of compensation to the contractor's employees.

Each contractor to whom a public works contract is awarded is required to sign and file with the awarding body the following certification prior to performing the work of the contract.

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 on this contract.

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

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

Title \_\_\_\_\_

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

**SECTION 00 4527**  
**CONTRACTOR'S CERTIFICATION REGARDING**  
**ATTENDANCE AT PRE-BID SITE MEETING/INSPECTION**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

In accordance with the requirements set forth in the Notice Inviting Bids regarding a mandatory pre-bid site meeting/inspection, the undersigned hereby certifies a designated and qualified representative, authorized to act on behalf of bidder, attended the mandatory pre-bid site meeting/inspection on \_\_\_\_\_, 2016 at \_\_\_\_\_. Bidder acquired and assembled all information provided, examined the site and made relevant inquiries and is satisfied that bidder is thoroughly familiar with, and understands the physical characteristics of the site, the site location and the requirements of the plans and specifications.

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

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

Title \_\_\_\_\_

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

**SECTION 00 4528**  
**CONTRACTOR'S CERTIFICATION REGARDING**  
**DEPARTMENT OF INDUSTRIAL RELATIONS REGISTRATION REQUIREMENTS**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

In accordance with Public Contracts Code Section 1720, et seq. and 1725.5, contractor hereby certifies that he/she/it is registered with the Department of Industrial Relations in the manner prescribed by the Department in accordance with California Labor Code Section 1725.5.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title \_\_\_\_\_  
Date: \_\_\_\_\_



**00 4529**  
**CONTRACTOR'S CERTIFICATION REGARDING**  
**CHILD AND FAMILY SUPPORT ENFORCEMENT**

TO BE EXECUTED BY WINNING BIDDER AND  
SUBMITTED WITH SIGNED CONTRACT

In accordance with the provisions of Public Contracts Code Section 7110, every contractor who enters into a contract with the District shall recognize the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the Family Code.

Every written contract in excess of \$100,000.00 executed between a contractor and the District requires the contractor to execute the following acknowledgment.

I/we hereby acknowledge the policy of the State of California as set forth in Public Contracts Code Section 7110, recognizing the importance of child and family support obligations. I/we will fully comply with all applicable state and federal laws relating to child and family support enforcement, and to the best of my/our knowledge, I/we are fully complying with the earnings assignment orders of all employees and we are providing the names of all new employees to the new hire registry maintained by the Employment Development Department.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title \_\_\_\_\_  
Date: \_\_\_\_\_

**SECTION 00 5213  
AGREEMENT FORM**

THIS CONTRACT made on \_\_\_\_\_ by and between the Colusa Unified School District, a political subdivision of the State of California, hereinafter called the "District", and \_\_\_\_\_ hereinafter called "Contractor".

District and Contractor, for valuable consideration, hereby agree as follows:

1. **THE CONTRACT DOCUMENTS:** The complete Contract consists of the following documents incorporated herein by this reference: (Check all that apply)

- ☐ Notice Inviting Bids
- ☐ Instructions to Bidders
- ☐ Accepted Bid
- ☐ General Construction Contract
- ☐ General Conditions
- ☐ Payment Bond to Accompany Contract
- ☐ Performance Bond to Accompany Contract
- ☐ Warranty Maintenance Bond
- ☐ Certification Regarding Workers' Compensation
- ☐ Certification Regarding Child and Family Support Enforcement
- ☐ Certification Regarding Workers' Compensation
- ☐ Project Manual and Specifications
- ☐ Working Details and Plans
- ☐ Addenda
- ☐ Supplemental General Conditions

Any and all obligations of the District and the Contractor are fully set forth and described therein.

All of the above documents are intended to cooperate so that any work called for in one and not mentioned in the other or vice versa is to be executed the same as if mentioned in all documents. The documents comprising the complete contract are sometimes referred to as the Contract Documents. In case of conflict between the plans and specifications on the one hand, and remaining contract documents on the other, the document shall be read and interpreted as a whole, and in a manner to give effect to the intent of the District and the Architect in the original design and construction scheme. If there is conflict between the Engineer's and Architect's interpretations, the Architect's interpretations shall govern. If there is any conflict between the plans and the specifications, the contractor will bring the conflict to the attention of the Architect/District, and the Architect in consultation with the District shall resolve the conflict, and the contractor shall follow the Architect/District's instructions.

2. **THE WORK.** Contractor agrees to furnish all tools, equipment, apparatus, facilities, labor, transportation and material necessary to perform and complete in a good and workmanlike manner, the Colusa High School AG Barn Site Utilities Project as called for, and in the manner designated in, and in strict conformity with, the Plans and Specifications prepared by Architectural Nexus Architects, and adopted by the District, which Plans and Specifications are entitled, respectively Colusa High School AG Barn Site Utilities Project and which Plans and Specifications are identified by the signatures of the parties to this Contract. It is understood and agreed that all tools, equipment, apparatus, facilities, labor, transportation, and material shall be furnished and all work performed and completed as required in the Plans and Specifications under the sole direction and control of the Contractor, and subject to inspection and approval of the District, or its representatives. The District hereby designates as its representative for the purpose of this Contract the following named person: Dwayne Newman, Superintendent.

3. **CONTRACT PRICE:** The District agrees to pay and the Contractor agrees to accept, in full payment for the work above agreed to be done, the sum of

Dollars (\$\_\_\_\_\_) subject to additions and deductions as provided in the Contract Documents.

4. GOVERNING TERMS AND CONDITIONS: The documents identified in paragraph 1 above, constitute the entire contract between District and Contractor. Contractor and District have significant rights and responsibilities pursuant to this Agreement. Specifically, Contractor performance, rights and obligations hereunder are governed by all contract documents and significant obligations and rights are set forth in the General Conditions and Supplemental Conditions, if any. By executing this Agreement, Contractor acknowledges that he/she/it has read and reviewed all of the contract documents including the General Conditions and Supplemental Conditions, if any, and that he/she/it is fully aware and understands the contents of the contract documents.

5. POST-AWARD SUBMITTAL REQUIREMENTS: In addition to the submission of the required payment and performance bonds and the certificate of insurance, the Contractor shall also submit to District, within ten (10) calendar days of execution of this Agreement the following: [insert any additional requirements]

District:

Contractor:

Colusa Unified School District  
745 10<sup>th</sup> Street  
Colusa CA 95932

IN WITNESS WHEREOF, identical counterparts of this Contract, each of which shall for all purposes be deemed an original thereof, have been duly executed by the parties hereinabove named, on the day and year first herein written.

Attest:

Colusa Unified School District  
745 10<sup>th</sup> Street  
Colusa CA 95932

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

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

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

Approved as to form:

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

Law Offices of Robert E. Thurbon  
Attorneys for the District

Contractor:

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

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

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

**SECTION 00 6113.13  
PERFORMANCE BOND FORM**

**PERFORMANCE BOND TO ACCOMPANY CONTRACT**

**Contractors must use this form, not a Surety Company form. Bond shall be issued by a Surety Company which is rated Best's A or better.**

KNOW ALL MEN BY THESE PRESENTS: that where, the Colusa Unified School District (hereinafter designated as "District") has awarded to \_\_\_\_\_ (hereinafter designated as "Principal" or "Contractor") a contract for the work described as follows: Colusa High School AG Barn Site Utilities Project.

WHEREAS, Principal is required to furnish a bond in connection with the contract, guaranteeing the faithful performance of the contract;

NOW, THEREFORE, we, the undersigned Principal and Surety are held and firmly bound unto the District in the sum of \_\_\_\_\_ dollars (\$\_\_\_\_\_), lawful money of the United States of America, for payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these present.

The **condition** of this obligation is such,

That if the Contractor, his/her/it's heirs, executors, administrators, successors or assigns, shall abide by and in well and truly keep and perform the covenants, conditions and agreements in the foregoing contract and any alteration thereof as therein provided, on his/her/their part to be kept and performed at the time and in the manner therein specified, the Surety shall have no obligation pursuant to this bond except to participate in conferences provided in subparagraph 1.1, otherwise, the Surety's obligation under this bond shall arise after:

1. The Surety's obligation:

1.1 The District has notified the Contractor and the Surety that the District is considering declaring the Contractor in default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than seven (7) calendar days after receipt of such notice to discuss methods of performing the construction contract. If the District, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the construction contract, but such agreement shall not waive the District's right to subsequently declare the Contractor in default; and

1.2 The District has declared the Contractor in default and formally terminated the Contractor's right to complete the contract. Default shall not be declared early than seven (7) calendar days after the Contractor and the Surety have received notice as provided in subparagraph 1.1; and

1.3 The District has agreed to pay the balance of the contract price to the Surety in accordance with the terms of the construction contract or to a contractor selected to perform the construction contract in accordance with the terms of the contract with the District.

2. When the District has satisfied the conditions of paragraph 1, the Surety shall immediately and at the Surety's expense take the following actions:

2.1 Undertake to perform and complete the construction contract itself, through its agents or through independent contractors. Surety shall not undertake to perform and complete the construction contract by employing, authorizing or utilizing the services of the principal contractor or affiliated organization without the written consent of the District; or

2.2 Retain a qualified contractor acceptable to the District for performance and completion of the construction project/contract. The contractor shall be selected with the District's concurrence and his/her/it's performance shall be secured with performance and payment bonds executed by a qualified Surety equivalent to the bonds issued for the original construction contract, and sufficient to pay to District the amount of damages as described in paragraph 4 et seq. resulting from the Contractor's default; or

2.3 Waive it's right to perform and complete, arrange for completion, or obtain a new contractor by determining the amount of which it may be liable to the District and as soon as practicable after the amount is determined, tender payment thereof to the District.

2.4 Surety shall proceed in accordance with paragraph 2 not later than fifteen (15) calendar days after written notice that Contractor is declared to be in default. In an emergency situation, or if time is of the essence in the underlying contract, District may take all reasonable actions necessary to protect the work of improvement and/or to continue the construction process pending Surety's investigation and action pursuant to paragraph 2. Cost incurred by District in protecting the work of improvement or continuing the construction process pending Surety action shall be the joint and several responsibilities of Surety and Contractor.

3. If Surety does not proceed as provided in paragraph 2 et seq., Surety shall be in default on this bond and the District shall be entitled to enforce any remedy available to District. In the event suit is brought upon this bond, Surety or Sureties will pay all court costs, expenses, and reasonable attorney fees fixed by the court.

4. After District terminates the Contractor's right to complete the construction contract,

the responsibilities of the Surety to the District shall not be greater than those of the contractor under the construction contract, and responsibilities of the District to the Surety shall not be greater than those of the District under the construction contract. To the limit of the amount of this bond, but subject to commitment by the District of the balance of the contract price to mitigation of costs and damages on the construction contract, the Surety is obligated without duplication for:

4.1 The responsibilities of the Contractor for correction of defective work and completion of the construction contract.

4.2 Additional legal, design professional and delay costs resulting from the Contractor's default, and resulting from the actions or failure to act as required in paragraphs 2 and 3.

4.3 Liquidated damages, or if no liquidated damages are specified in the construction contract, then actual damages caused by the delayed performance or non-performance of the Contractor.

5. Surety hereby waives notice of any change, including changes of time, to the construction contract or to related subcontracts, purchase orders and other obligations.

6. Notice to the Surety, the District or the Contractor shall be mailed or delivered to the address shown on the signature page.

7. This bond, the rights and obligations hereunder and the interpretation of any provision contained herein, shall be governed by the laws of the State of California and Surety, by submission of this bond to District, shall be deemed to have submitted to the jurisdiction of California courts. Surety's obligations to District pursuant to this bond are subject to the covenant of good faith and fair dealing and Surety's breach of said covenant shall give rise to a cause of action by District for damages caused by Surety's breach of said covenant.

8. For the purposes of this bond, the construction contract shall be defined as all of the documents in the agreement between District and Contractor.

9. Surety, for value received, hereby stipulates and agrees that in accordance with California Civil Code Section 8152 no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same or payment for non-conforming or defective work or materials, except for final payment upon contract completion shall in any way affect Surety's obligations or exonerate Surety on this bond, and Surety hereby waives notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications, or of payment for defective work or non-conforming work or materials.

IN WITNESS WHEREOF, identical counterparts of this bond, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above-named on the \_\_\_\_\_ day of \_\_\_\_\_, 2016.

To be signed by Principal and Surety and Notarial Acknowledgment and Seal attached.

CONTRACTOR (Name and Address)

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

DISTRICT:

Colusa Unified School District  
745 10<sup>th</sup> Street  
Colusa, CA 95932

SURETY (Name and Principal place of business)

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

CONTRACTOR AS PRINCIPAL  
COMPANY: \_\_\_\_\_

(Corporate Seal)

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

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

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

SURETY COMPANY: \_\_\_\_\_

(Corporate Seal)

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

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

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

Attorney in Fact

THIS IS A REQUIRED FORM

Surety companies executing bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in California Insurance Code Section 105, and if the work or project is financed, in whole or in part, with federal, grant or loan funds, surety's name must also appear on the Treasury Department's most current list (Circular 570 as amended).

Any claims under this bond may be addressed to:  
(Name and Address of Surety)

(Name and Address of agent or  
representative for service of process  
in California)

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

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

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

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

State of California  
County of \_\_\_\_\_)

On \_\_\_\_\_ before me, \_\_\_\_\_, a Notary Public, in  
and for said State, personally appeared \_\_\_\_\_,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument as the Attorney-in-Fact of the \_\_\_\_\_(Surety) and  
acknowledged to me that he/she/they subscribed the name of the \_\_\_\_\_(Surety)  
thereto and his/her own name as Attorney-in-Fact on the executed instrument.

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

WITNESS my hand and official seal.

\_\_\_\_\_ (Seal)  
Notary Public in and for said State

Commission expires: \_\_\_\_\_

Note: A copy of the power-of-attorney to local representative of the bonding company must be attached  
hereto.

END OF SECTION

**SECTION 00 6113.16  
PAYMENT BOND FORM**

**PAYMENT BOND TO ACCOMPANY CONTRACT**

**Contractors must use this form, not a Surety Company form. Bond shall be issued by a Surety Company which is rated Best's A or better.**

Know All Men by These Presents: THAT WHERE, the Colusa Unified School District (hereinafter designated as "District") has awarded to \_\_\_\_\_, as principal, hereinafter designated as the "Contractor", a contract for the work described as follows: The Colusa High School Ag Barn Site Utilities Project.

AND WHEREAS, Contractor is required by the provisions of Section 9550 et seq., Civil Code, to furnish a bond in connection with the contract;

NOW, THEREFORE, We the undersigned Contractor and surety are held and firmly bound unto the District in the sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), said sum is consistent with the provisions of Section 9554 of the Civil Code, for which payment well and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

**THE CONDITION OF THIS OBLIGATION IS SUCH,**

That if Contractor, his/her/it's heirs, executors, administrators, successors or assigns, or subcontractors, shall fail to pay any materials, provisions, provender, or other supplies or teams, implements or machinery used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, as required by the provisions of Section 9950 et seq. of the Civil Code, and provided that the claimant shall have complied with the provisions of said Code, the surety or sureties hereon will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond the surety or sureties will pay all court costs, expenses and the reasonable attorneys' fees fixed by the court and the application and interpretation of the rights and obligations hereunder shall be pursuant to California law. Surety's obligation to the Colusa Unified School District pursuant to this bond is subject to the covenant of good faith and fair dealing.

This bond shall inure to the benefit of any and all persons, companies or corporations entitled to file claims under Section 9100 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Surety, for value received, hereby stipulates and agrees that in accordance with California Civil Code section 8152 no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same or payment for defective work or materials, except for final payment upon contract completion, shall in any way affect Surety's obligations or exonerate Surety on this bond, and Surety hereby waives notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications of, or payment for defective work or materials.



IN WITNESS WHEREOF, identical counterparts of this bond, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above-named on the \_\_\_\_\_ day of \_\_\_\_\_, 2016.

[Signatures on Following Page]

CONTRACTOR (Name and Address)

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

DISTRICT:

Colusa Unified School District  
745 10<sup>th</sup> Street  
Colusa, CA 95932

SURETY (Name and Principal place of business)

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

CONTRACTOR AS PRINCIPAL  
COMPANY: \_\_\_\_\_

(Corporate Seal)

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

SURETY COMPANY: \_\_\_\_\_

(Corporate Seal)

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Attorney in Fact

THIS IS A REQUIRED FORM

Surety companies executing bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in California Insurance Code Section 105, and if the work or project is financed, in whole or in part, with federal, grant or loan funds, surety's name must also appear on the Treasury Department's most current list (Circular 570 as amended).

Any claims under this bond may be addressed to:  
(Name and Address of Surety)

(Name and Address of agent or  
representative for service of process  
in California)

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

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

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

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

State of California  
County of \_\_\_\_\_)

On \_\_\_\_\_ before me, \_\_\_\_\_, a Notary Public, in  
and for said State, personally appeared \_\_\_\_\_,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument as the Attorney-in-Fact of the \_\_\_\_\_(Surety) and  
acknowledged to me that he/she/they subscribed the name of the \_\_\_\_\_(Surety)  
thereto and his/her own name as Attorney-in-Fact on the executed instrument.

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

WITNESS my hand and official seal.

\_\_\_\_\_(Seal)  
Notary Public in and for said State

Commission expires: \_\_\_\_\_

Note: A copy of the power-of-attorney to local representative of the bonding company must be attached  
hereto.

END OF SECTION

**SECTION 00 6119  
MAINTENANCE BOND FORM**

**WARRANTY MAINTENANCE BOND TO ACCOMPANY CONTRACT**

KNOW ALL MEN BY THESE PRESENTS: that whereas, the Colusa Unified School District (hereinafter designated as "District") has awarded to \_\_\_\_\_ (hereinafter designated as "Principal or Contractor") a contract for the work described as follows: The Colusa High School Ag Barn Site Utilities project.

WHEREAS, Principal is required to furnish a bond in connection with the contract, guaranteeing the faithful performance of Principal's obligations pursuant to a 2-year warranty period as set forth in the contract;

NOW, THEREFORE, we, the undersigned Principal and \_\_\_\_\_ as Surety are held and firmly bound unto District in the sum of \_\_\_\_\_ lawful money of the United States of America, for payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these present.

The condition of this obligation is such,

That if the Contractor, his/her/its heirs, executors, administrators, successors or assigns, shall abide by and in well and truly keep and perform the covenants, conditions and agreements of the warranties set forth in the subject contract and any alteration thereof as therein provided, on his/her/its part to be kept and performed at the time and in the manner therein specified, the Surety shall have no obligation pursuant to this bond, otherwise the Surety's obligation under this bond shall arise after:

A. The District has notified the Contractor of defects in material or workmanship and Contractor has refused to correct, or failed to adequately correct defective materials or workmanship consistent with the obligation set forth in the warranty provision of the subject contract, and/or has failed to compensate District for consequential damages suffered as a result of the defective material and/or workmanship.

Then:

B. The surety shall immediately and at the Surety's expense, undertake to perform and complete repairs/replacement of defective materials or workmanship through its agents or through independent contractors or Surety may waive its right to perform as set forth above by determining the amount of which Surety may be liable to the District and as soon as practicable after the amount is determined, tender payment thereof to District.

Surety shall proceed in accordance with the obligation set forth herein, not later than seven (7) calendar days after written notice that Contractor has refused or failed to perform his/her/its obligations pursuant to the warranty provisions of the subject contract and in an emergency situation, or if time is of the essence in the underlying contract, District may take all reasonable actions necessary to protect the subject work of improvement and/or commence immediate repairs to protect the health and safety of the public or to continue the operation of the District and costs incurred by District in protecting the work of improvement or commencing emergency repairs for the protection of the public or the continued operation of the district shall be the joint and several responsibility of Surety and /Contractor.

If Surety does not proceed as provided herein, Surety shall be in default on this bond and the District shall be entitled to enforce any remedy available to District. In the event suit is brought upon this bond, Surety or Sureties will pay all courts costs, expenses and reasonable attorney fees fixed by the court.

This bond, the rights and obligations hereunder and the interpretation of any provision contained herein, shall be governed by the laws of the State of California and /Surety, by submission of this bond to District, shall be deemed to have submitted to the jurisdiction of California courts.

For the purposes of this bond, the contract and warranty provisions contained therein shall be defined as all of the documents constituting the complete construction contract by and between District and Contractor.

Surety hereby stipulates and agrees that this bond shall remain in full force and effect until expiration of the warranty period as set forth in the contract documents.

IN WITNESS WHEREOF, identical counterparts of this bond, each of which shall for all purposes be deemed an original thereof, have been duly executed by the principal in surety above-named on the \_\_\_\_\_ day of \_\_\_\_\_, 2016.

CONTRACTOR (Name and Address)

DISTRICT:  
Colusa Unified School District  
745 10<sup>th</sup> Street  
Colusa, CA 95932

SURETY  
(Name and principle place of business)

CONTRACTOR AS PRINCIPAL  
COMPANY:

(Corporate Seal)

\_\_\_\_\_  
Name and Title:

SURETY COMPANY:

(Corporate Seal)

\_\_\_\_\_  
Attorney in Fact

THIS IS A REQUIRED FORM

Surety companies executing bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in California Insurance Code Section 105, and if the work or project is financed, in whole or in part, with federal, grant or loan funds, surety's name must also appear on the Treasury Department's most current list (Circular 570 as amended).

Any claims under this bond may be addressed to:  
(Name and Address of Surety)

(Name and Address of agent or  
representative for service of process  
in California)

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

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

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

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

State of California

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

On \_\_\_\_\_ before me, \_\_\_\_\_, a Notary Public, in and for said State, personally appeared \_\_\_\_\_, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument as the Attorney-in-Fact of the \_\_\_\_\_ (Surety) and acknowledged to me that he/she/they subscribed the name of the \_\_\_\_\_ (Surety) thereto and his/her own name as Attorney-in-Fact on the executed instrument.

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

WITNESS my hand and official seal.

\_\_\_\_\_  
(Seal)  
Notary Public in and for said State

Commission expires: \_\_\_\_\_

Note: A copy of the power-of-attorney to local representative of the bonding company must be attached hereto.

END OF SECTION

**SECTION 00 6241**  
**CONTRACTOR CERTIFICATION REGARDING BACKGROUND CHECKS**

TO BE EXECUTED BY WINNING BIDDER AND SUBMITTED WITH SIGNED CONTRACT

\_\_\_\_\_ certifies that it has performed one of the following:

- ☐ Pursuant to Education Code Section 45125.1, Contractor has conducted criminal background checks, through the California Department of Justice, of all employees providing services to the Colusa Unified School District, pursuant to the contract/purchase order dated \_\_\_\_\_, and that none have been convicted of serious or violent felonies, as specified in Penal Code Sections 1192.7(c) and 667.5(c), respectively.

As further required by Education Code Section 45125.1, attached hereto as Attachment "A" is a list of the names of the employees of the undersigned who may come in contact with pupils.

OR

- ☐ Pursuant to Education Code Section 45125.2, Contractor will ensure the safety of pupils by one or more of the following methods:

1. The installation of a physical barrier at the worksite to limit contact with pupils.
2. Continual supervision and monitoring of all employees of the entity by an employee of the entity whom the Department of Justice has ascertained has not been convicted of a violent or serious felony.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

Date \_\_\_\_\_, 2016

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

**ATTACHMENT A:**

**CONTRACTOR CERTIFICATION REGARDING BACKGROUND CHECKS**

*(INSERT NAMES OF EMPLOYEES WHO MAY COME IN CONTACT WITH PUPILS)*

**SECTION 00 6313  
CLARIFICATION FORM**

FOR CONTRACTOR'S USE PRIOR TO SUBMISSION OF BID

PROJECT NAME:	Colusa High School Ag Barn Site Utilities Project		
BID #:			
TO:	Wally Browe	EMAIL:	wally@capitalpm.com

DATE:			
FROM:		EMAIL:	
DOCUMENT/DIVISION NUMBER:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

RESPONSE TO CLARIFICATION:



**SECTION 00 7200  
GENERAL CONDITIONS**

1. **ACCEPTANCE OF NON-CONFORMING WORK:** District reserves the right to accept non-conforming work, in consultation with the Architect, and in such case, acceptance of non-conforming work shall result in an equitable adjustment in the total contract price reflecting the reduced value of the non-conforming work as determined by mutual agreement between District and Contractor.
  - 1.1 **REJECTION OF NON-CONFORMING WORK:** The Contractor shall promptly correct all work rejected by the Architect as defective or failing to conform to the Contract Documents whether observed before or after substantial completion and whether or not fabricated, installed, or completed. The Contractor shall bear all costs of correcting such rejected work, including, but not limited to, re-inspection, redesign, and as applicable the following costs:
    - a. Owner: PM/CM: 4-hour minimum @ \$150 per hour or current rate in effect at time of correction;
    - b. Architect: Office/Field: 4-hour minimum @ \$150 per hour or current rate in effect at time of correction;
    - c. Project Inspector: 4-hour minimum @ \$150 per hour or current rate in effect at time of correction;
    - d. Test Lab: 4-hour minimum @ \$150 per hour or current rate in effect at time of correction.
  - 1.2 **FINAL INSPECTION – REINSPECTIONS:** When Contractor believes the Work, including the punch list, is complete, it shall submit written certification of the same pursuant to Closeout Procedures. Thereafter, the Work shall be inspected by the District and Architect. If Architect and District determine that the Work is not complete, or is defective or otherwise in need of correction, the Contractor shall be notified of the same and if any further inspections, approvals, testing, reviews, et cetera, need to be performed by the District and Architect as a result thereof, such work may, at the District's discretion, be back charged to the Contractor.
2. **ACCIDENT PREVENTION:** Precaution shall be exercised at all times for the protection of persons (including employees) and property. The safety provisions of applicable laws, building and construction codes shall be observed. Machinery and equipment shall be guarded and other hazards shall be eliminated in accordance with the safety provisions of the Construction Safety Orders issued by the Industrial Accident Commission of the State of California.
3. **ARBITRATION:** This contract is subject to Public Contracts Code §20104. Specifically, claims for three hundred and seventy-five thousand (\$375,000.00) dollars or less which arise between the Contractor and the District shall be resolved as follows:
  - 3.1. **Definition:** "Claim" means a separate demand by the Contractor for:
    - a. a time extension;
    - b. payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the contract for a public work and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to; or
    - c. an amount the payment of which is disputed by the District.
  - 3.2. For any claim subject to this article, the following requirements apply:

- a. The claim shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. This provision shall not extend the time limit or otherwise supersede notice requirements set forth in other provisions of the contract documents.
- b. For claims of less than fifty thousand (\$50,000.00) dollars, the District shall respond in writing to any written claim within forty-five (45) days receipt of the claim or may request, in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the District may have against the claimant. If additional information is thereafter required, it shall be requested and provided upon mutual agreement by the District and the claimant. The District's written response to the claim, as further documented, shall be submitted to the claimant within fifteen (15) days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.
- c. For claims over fifty thousand (\$50,000.00) dollars and less than or equal to three hundred and seventy-five thousand (\$375,000.00) dollars, the District shall respond in writing to all written claims within sixty (60) days of receipt of the claim, or may request, in writing, within thirty (30) days receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the District may have against the claimant. If additional information is thereafter required, it shall be requested and provided upon mutual agreement of the District and the claimant. The District's written response to the claim as further documented shall be submitted to the claimant within thirty (30) days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information or requested documentation, whichever is greater.
- d. If the claimant disputes the District's written response, or if the District fails to respond within the time prescribed, the claimant may so notify the District in writing either within fifteen (15) days of receipt of the District's response or within fifteen (15) days of the District's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the District shall schedule a meet and confer conference within thirty (30) days.
- e. If, following the meet and confer conference, the claim or any portion remains in dispute, the claimant may file a claim pursuant to Government Code §900 et seq.
- f. If claimant's claim is not resolved pursuant to his/her filing of the claim pursuant to Government Code §900 et seq., claimant may proceed with a civil action which shall be governed by the provisions of Public Contracts Code §20104.4. Specifically, the court will submit the matter to non-binding mediation unless the District and claimant waive non-binding mediation and thereafter, if the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure.

4. ARCHITECT/ENGINEER: The District has retained Architectural Nexus as Architect/Engineer for this project. The Architect/Engineer will advise and consult with the District, and all of the District's instructions to the Contractor shall be issued through the Architect/Engineer. The Architect is responsible for the overall design of the project and the final authority, in consultation with the District, in judgments of aesthetic consideration. The drawings, specifications, sketches and other data necessary to define the work covered by these contract documents have been prepared by the Architect. The Architect shall

observe the construction to determine general compliance with the contract documents and the Architect shall interpret the drawings and specifications consistent with the intent of the drawings and specifications. The Architect shall evaluate and review shop drawings, samples and other submittals required and maintain an up-to-date log of all such items processed. The Architect shall consult with the District, Contractor(s) and any state or city agency having jurisdiction over the work whenever necessary to further the best interest of the project.

5. **AS-BUILT DRAWINGS:** The Contractor will be given one extra set of Drawings and Specifications by the Architect which shall be kept at the site of the work at all times. As built drawings required to be kept on site include a complete set of drawings for all trades including, but not necessarily limited to, civil, structural, architectural, electrical, plumbing, mechanical, landscape, auxiliary such Enviroplex. Exact locations of all pipes and conduits and all changes in construction and details shall be indicated and dimensioned upon these drawings, and all changes in materials and equipment installed shall be indicated in these Specifications. As-builts drawings shall be updated on a monthly basis. Progress payments to the Contractor shall be withheld by the District until as-built documents are up to date. Upon completion of the work, the "as-built" Drawings and Specifications shall be returned to the District prior to final payment. Contractor guarantees the accuracy of the "as-built drawings" and Contractor shall indemnify District from any loss incurred as a result of inaccurately submitted "as-built drawings". The warranty of accuracy of the as-built drawings shall survive the completion of Contractor's obligations hereunder and shall be in effect for the useful life of the completed project, excepting that destruction of the project or revision or reconstruction of the building after completion of the project shall relieve Contractor of his/her obligation of accuracy in the as-built drawings regarding the portion(s) of systems or building change or altered by subsequent reconstruction.
6. **ASSIGNMENT:** Neither party to the Contract shall assign the Contract as a whole without the written consent of the other, nor shall the Contractor assign any monies due or to become due to him/her hereunder, without the previous written consent of the District. Assignment of this contract or any part thereof without the prior written consent of the District shall constitute a material breach of this Agreement and entitle District to exercise any and all rights provided for by this Agreement or by law for such material breach.
7. **ATTORNEYS' FEES:** In the event of any action or proceeding, brought by any party against any other party pursuant to this Agreement, the prevailing party shall be entitled to recover all costs and expenses, including the actual fees of its attorneys, incurred for prosecution, defense, consultation or advice in such action or proceeding, not limited to but including cost of expert witnesses, attorney preparation, and cost of discovery and investigation. In awarding attorney fees, the court will not be bound by any court fee schedule but shall, if it is in the interest of justice to do so, award the full amount of cost, expenses, attorney fees paid or incurred in good faith. This provision shall not be applicable to the alternative dispute resolution set forth in Public Contracts Code §20104 et seq., until such time as the case is assigned to judicial arbitration, by a court of competent jurisdiction or, if not assigned for judicial arbitration, when the case is heard before a court of competent jurisdiction.
8. **AUDIT:** District may at all times review and audit Contractor's cost accounting records and other job records and Contractor will afford District reasonable facilities for such audits. Contractor shall preserve all job records for at least five (5) years after the completion of the project.
9. **BINDING AGREEMENT:** This Agreement, including all documents comprising the complete construction contract, shall be binding upon the District and Contractor and upon their successors and assigns and shall ensure to the benefit of the District and Contractor and their successors and assigns.
10. **BONDS:** The Contractor shall furnish the District, within three (3) days after award of the Contract by the Governing Board and prior to execution of the Contract and the beginning of work, with the following separate surety bonds:
  - 10.1 **Faithful Performance Bond:** Said bond shall be in an amount equal to one hundred percent (100%) of the Contract price, shall be for the faithful performance of the Contract, shall be approved by the District, and shall be secured from an admitted surety or sureties satisfactory to

District. An admitted surety is an insurance organization authorized by the Insurance Commissioner to transact surety business in the State of California during this calendar year.

10.2 Payment Bond: Said bond shall be in an amount equal to one hundred percent (100%) of the Contract price, shall be approved by the District, and shall be secured from an admitted surety or sureties satisfactory to District. An admitted surety is an insurance organization authorized by the Insurance Commissioner to transact surety business in the State of California during this calendar year.

Each bond shall be in the form set forth in the contract documents.

## 11. CHANGE ORDERS:

- 11.1 District, without invalidating contract, and as provided by law, may order extra work or make changes by altering, adding to, or deducting from work, contract sum being adjusted accordingly. All such work shall be executed under conditions of original contract. Contractor shall increase the amounts of his payment and performance bonds in proportion to any increase in price. In giving instructions, Architect, with the prior approval of District, shall have authority to make minor changes in work not involving change in cost and not inconsistent with purposes of building. Otherwise, except in an emergency endangering life or property, no extra work or change shall be made except in pursuance of a written change order from the District, and no claim for addition to contract sum shall be valid unless so ordered.
- 11.2 If the contractor is delayed in completing the work by reason of any change made pursuant to this Article, the time for completion of the work shall be extended by the same change order for a period commensurate with such delay, without additional compensation, and Contractor shall not be subject to liquidated damages for this extension. No extension of time will be granted for change orders that, in the opinion of the Architect, do not affect the critical path of the project.
- 11.3. All change orders shall be signed by District and the Architect.
- 11.4. Value of any such extra work, change, or deduction shall be determined at the sole discretion of the District in either of the two following ways set forth in subsection 11.4.a. or 11.4.b. Contractor understands and agrees that regardless of which process District elects to utilize that when submitting any change order proposal that such change order shall be broken down separately to itemize labor, by trade and hourly rate, for any trade performing work on the project and materials for any one activity. Contractor also understands and agrees that when submitting its itemized change order proposal, that Contractor shall only be allowed to submit a cost proposal for labor that reflects the wage rates set forth in the Schedule of Values for the trade that is currently on file with the District and Architect at the time the change order proposal is submitted.
  - a. Acceptable lump sum proposal from Contractor properly itemized and supported by sufficient substantiating data to permit evaluation with a combined mark-up for all overhead and profit based on the formula set forth in section B. (5) of this Article. Contractor's written proposal must be broken down and submitted, in writing, in the format set forth in Section 11.4.b.1 through 11.4.b.7.
  - b. Time and Material: "Force Account" for direct costs for labor, material, and equipment rental plus markups for overhead and profit for Prime Contract, Subcontractor, and Sub-subcontractors as applicable. (Supervision is to be included in markup unless specifically agreed to in advance that special supervision is required.)
    - 1. Labor: Attach itemized direct hourly rates in accordance with certified payroll records times total hours expended. Separately show dollar amount for employer-paid payroll taxes/insurance benefits.

Enter total as direct labor item.

2. Material: Attach receipts, invoices or itemized quantity units costs plus tax and delivery.

Enter total as material item. \_\_\_\_\_

3. Equipment: Attach receipts, invoices, or tear tickets indicating unit costs and total hours or loads charged. (Small tools with a value of less than \$500.00 are to be included in markup.)

Enter total as rental item. \_\_\_\_\_

4. SUBTOTAL (Lines 1+2+3)

5. Combined Markup: FOR ALL OVERHEAD AND PROFIT SHALL BE BASED ON THE FOLLOWING:

a. For the Prime Contractor, for work performed by his forces, fifteen (15%) percent of his direct subtotal cost. This fifteen (15%) markup represents payment for profit, overhead, insurance, taxes, indirect supervision, bonds, warranty and any other costs incurred by Contractor in connection therewith.

b. For the Prime Contractor, for work performed by a Subcontractor's forces, five (5%) percent of the direct subtotal cost due the Subcontractor, with no mark-up on mark-up. This five (5%) markup represents payment for profit, overhead, insurance, taxes, indirect supervision, bonds, warranty and any other costs incurred by Contractor in connection therewith.

c. For a Subcontractor or Sub-subcontractor, for work performed by their own forces, fifteen (15%) percent of their own direct subtotal costs. This fifteen (15%) markup represents payment for profit, overhead, insurance, taxes, indirect supervision, bonds, warranty and any other costs incurred by sub-contractor in connection therewith.

d. For a Subcontractor, for work performed by a Sub-subcontractor, five (5%) percent of the direct subtotal cost due the Sub-subcontractor. This five (5%) markup represents payment for profit, overhead, insurance, taxes, indirect supervision, bonds, warranty and any other costs incurred by Contractor in connection therewith.

6. SUBTOTAL (Lines 4+5) \_\_\_\_\_

7. TOTAL CHANGE ORDER REQUEST: \_\_\_\_\_

- c. If the Contractor should claim that any instruction, request, drawing, specification, action, condition, omission, default or other situation obligates the District to pay additional compensation to the Contractor or to grant an extension of time for the completion of the contract, or constitutes a waiver of any provision in the contract, he shall notify the District, in writing, of such claim within ten (10) days from the date he has actual or constructive notice of the factual basis supporting the claim. The Contractor's failure to notify the District within such period shall be deemed a waiver and relinquishment of the claim against the District. If such notice be given within the specified time, the procedure shall be as stated above in this Article.

- d. Contractor Initiated Change Orders: Contractor understands that with respect to Contractor initiated change orders, that Contractor shall be solely responsible for all costs associated with the review process including, but not limited to, Architect review, engineers review, inspection, DSA approvals, et cetera.
- e. Back Charge for Failure to Timely Submit Information for Proposed Change Orders: Contractor understands that it shall, within ten (10) calendar days of receipt of a demand by District, provide to District, in writing, an itemized list of all costs and/or credits (as applicable) for any Contractor initiated change orders. Contractor further understands that a failure to comply with this provision will result in the District obtaining the necessary information and back charging the Contractor for all costs incurred in having to take this action.
- f. All costs for supervision shall be part of the Contractor's or subcontractor's overhead including, but not limited to, cost of bond, office/clerical support, home office overhead, administrative expenses, profit, overhead, insurance, taxes, indirect supervision, bonds, warranty and any other costs incurred by Contractor in connection therewith.

## 12. CLEANUP:

- 12.1 The Contractor shall protect and preserve the work from all damage or accident, providing any temporary roofs, window and door coverings, boxings, or other construction as required. This shall include any adjoining property of the District or others affected by the work of the Contractor. Contractor shall, on a daily basis, maintain the site in a reasonably clean condition and shall at the conclusion of each construction day ensure that dirt, debris, refuse, etc., deposited or left outside of the general construction area on any grounds or facilities occupied or used by the public or district staff, is cleaned-up and removed from the facility occupied or used by the public and/or district staff.
- 12.2 In the event work performed by the Contractor or any subcontractor creates dust or other airborne debris, Contractor shall provide daily "dust control" sufficient to prevent dust accumulation on grounds or buildings occupied or used by the public or district staff.
- 12.3 The Contractor shall assume full responsibility for all glass and plastic glazing installed under this Contract against damage from any source during construction. He/she shall replace all broken, cracked or scratched glass or plastic without expense to the District until date of Final Completion.
- 12.4 The Contractor shall, at completion of the work, remove all marks, stains, fingerprints, dust, dirt, and paint drippings from all surfaces, wash tile, plumbing and other fixtures clean. Clean and polish all hardware and other unpainted metals. Remove all temporary labels, tags and paper coverings. Clean all concrete and asphalt surfaces.
- 12.5 Cleaning, polishing, sealing, waxing and all other such finish operations indicated on the Drawings or required in the Specifications shall be taken to produce the required condition at the time of acceptance of all work under the Contract.
- 12.6 Before final acceptance, employ professional window cleaners to clean all plastic and glass surfaces and mirrors of putty, paint materials, stains and dirt, without scratching or injuring the plastic and glass. Leave the work bright, clean and polished.

- 13. COMMENCEMENT OF WORK AND TIMELY COMPLETION: Contractor understands and acknowledges that time is of the essence for completion of this project. The Contractor shall commence work on this project within ten (10) ten calendar days from and after the date of written notice by District to the Contractor to begin work. Upon receipt of such notice, Contractor shall begin work and shall prosecute the work diligently to completion. No work shall be commenced before the contract is signed.

- 13.1 Completion Deadline: The Project must be completed by June 10, 2016. Failure to complete the project on time will subject the successful bidder to liquidated damages as set forth in the liquidated damages provision of this Contract.
- 13.2 Delays: If Contractor is delayed in said work by the unforeseeable acts of District, its officers, agents or employees, or by changes ordered in the work, or by anticipatable strikes, fire, unusual and anticipatable delay in transportation, unavoidable casualties, unusually adverse weather conditions which could not have been reasonably anticipated or by delay authorized by District, or by any cause which the District shall decide to justify the delay, then the time of completion shall be extended for such reasonable time as the District may decide. In the event Contractor is delayed by the acts of District, its agents, officers or employees, Contractor's sole remedy is an extension of time to perform his/her obligations and Contractor shall not be entitled to recover damages unless the delay is unreasonable under the circumstances and was not within the reasonable contemplation of the Contractor and/or the District. The Contractor's right to an extension of time or to recover damages for delays indicated above is expressly subject to his/her giving seven (7) days' notice of such claim from the day he/she knew or should have known of the delay. Failure to give such notice shall constitute a waiver of an extension of time, damages, or any other remedy Contractor may have had if he/she provided proper notice pursuant to this provision. Failure to complete the project within the time specified, including extensions thereof, shall subject Contractor to the imposition of liquidated damages as set forth in the contract documents.
- 13.3 Substantial Completion: For the purpose of determining substantial completion if applicable to, or necessary under this contract, substantial completion shall be defined as the stage in the progress of the work when the work or designated portion thereof is sufficiently complete in accordance with the contract documents so that the Architect can certify that the work is substantially complete, and so that District can occupy or utilize the work for its intended purpose. When the Contractor considers that the work or a portion thereof which the District agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect the comprehensive list of items to be completed or corrected. The Contractor shall proceed promptly to complete and correct items on the list. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all work in accordance with the contract documents. Upon receipt of the Contractor's list, the Architect will make an observation to determine whether the work or designated portion thereof is substantially complete. When the work or designated portion thereof is substantially complete, the Architect will prepare a certificate of substantial completion which shall establish the date of substantial completion, shall establish the responsibilities of the District and Contractor for security, maintenance, heat, utilities, damage to the work, insurance, and shall fix the time, which shall not exceed thirty (30) days from the date of substantial completion, within in which the Contractor shall finish all items on the list accompanying the certificate. The certificate of substantial completion shall be submitted to the District and Contractor for their written acceptance of responsibilities assigned to them in such certificate. The District shall retain sufficient funds to compensate for unfinished items identified on Contractor's "punch list", and funds encumbered by filed stop notices.
- It is IMPORTANT that the Contractor understands that achieving substantial completion does not relieve the Contractor from achieving final completion by the Project Completion Deadline set forth in Section 13(a). Failure to achieve final completion, as that term is defined in Section 13(d), within the Project Completion Deadline may result in the District imposing liquidated damages against the Contractor for each and every calendar day thereafter until final completion is actually achieved.
- 13.4 Final completion shall be deemed to have occurred when Contractor has completed all items on his/her "punch list" and when Contractor has fulfilled all other obligations set forth in the contract documents. Upon recommendation of the Architect and upon satisfactory completion of all punch list items, the District shall record a notice of completion. Approximately thirty-five (35) days after recordation of the notice of completion, the District shall process the final payment to the Contractor with offsets for the value of stop notices, or incomplete or unsatisfactory work.

- 13.5 Rain Day: Is defined as a day with 0.1 inch of measurable rain or more, as per the National Weather Service. Days exceeding the normal days of rain for this project and exceeding 0.1 inch per day will be considered a rainy day. However, notwithstanding the foregoing, rain day delay claims will only be approved if the Contractor demonstrates to the satisfaction of the District that such rain days actually caused Contractor to have to cease work on the critical path of the project and actually caused a delay in completion of the project, and such delay claim is verified in writing by the Inspector of Record. Rain day delay claims can only be submitted for actual days of work scheduled to be performed and are exclusive of weekends, holidays and all other days for which work is not actually scheduled to be performed on that day. The Inspector of Record will not be authorized to approve any rain day delay claims unless the Inspector of Record certifies that the rain day actually resulted in the delay of the prosecuting of the scope of work being performed on the project at the time of the rain day. Rain day delay claims will not be approved merely to afford an extension of time of completion of the contract. Rain day delay claims must be time submitted as provided in Paragraph 13.2 above; otherwise, such claim is deemed waived.
14. COMPLETE AGREEMENT: This contract supersedes any and all agreements either oral or in writing, between the District and Contractor with respect to the subject matter herein. The District and Contractor acknowledge that no representation by any party which is not embodied herein or any other agreement, statement or promise not contained in the contract documents shall be valid and binding.
15. COMPLIANCE WITH LAWS AND REGULATIONS: Contractor shall be familiar with, and comply with, the various federal, state and local laws affecting public works, including but not limited to the following:
- 15.1 Prevailing Wage Law:
- a. The general prevailing wage rates have been determined by the Director of the State Department of Industrial Relations and it shall be mandatory upon the Contractor to whom the Contract is awarded and upon any subcontractor to pay not less than these specified rates to all laborers, workers, and mechanics employed by them in the execution of the Contract, all in accordance with the provisions of Sections 1770-1776, inclusive, of the Labor Code. Copies of the general prevailing wage rates are on file at the administrative office of District.
  - b. It shall be mandatory upon the Contractor and upon any subcontractor under him/her to pay not less than the specified rates to all laborers, workers, and mechanics employed in the execution of the Contract. It is further expressly stipulated that the Contractor shall, as a penalty, to the District, forfeit the maximum allowable statutory penalty in effect, for each calendar day, or portion thereof, for each laborer, worker, or mechanic paid less than the stipulated prevailing rates for any work done under this Contract by him/her or by any subcontractor under him/her.
  - c. In case it becomes necessary for the Contractor or any subcontractor to employ on the project under this Contract any person in a trade or occupation (except executives, supervisory, administrative, clerical, or other non-manual workers as such) for which no minimum wage rate is herein specified, the Contractor shall immediately determine the prevailing rate for such additional trade or occupation and shall notify the District. The District will verify the wage rate through the Office of the Labor Commissioner. The minimum rate thus furnished shall be applicable as a minimum for such trade or occupation from the time of the initial employment of the person affected and during the continuance of such employment.
- 15.2 Wage Records: Pursuant to Section 1776 of the Labor Code, the contractor is required to submit weekly certified payroll records to the District and/or its designee. Progress payments to the Contractor shall be withheld by the District until certified payrolls are up to date.



- a. Each Contractor and subcontractor shall keep an accurate payroll record, 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/her or her in connection with the public work. Certified payroll records must be on the forms provided by the Division of Labor Standards Enforcement or must contain all information required on Division forms. Forms may be obtained from the Division of Labor Standards Enforcement.
- b. The payroll record enumerated under subdivision 1. shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:
  - i. A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his/her authorized representative on request.
  - ii. A certified copy of all payroll records enumerated in subdivision 1. shall be made available for inspection or furnished upon request to  
  
the District, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations.
  - iii. A certified copy of all payroll records enumerated in subdivision 1. shall be made available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the District, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to being provided the record, reimburse costs of preparation by the Contractor, subcontractors, and entity through which the request was made. The public shall not be given access to the records at the principal office of the Contractor.
- c. Each Contractor shall file a certified copy of the records enumerated in this subdivision with the entity that requested the records within ten (10) days after receipt of a written request. Contractor shall immediately forward a copy of the request to District as well as copies of all responsive documents.
- d. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the District, shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of the Contractor awarded the Contract or performing the contract shall not be marked or obliterated.
- e. The Contractor shall inform the District of the location of the records enumerated under this subdivision, including the street address, city and county, and shall, within five (5) working days, provide a notice of a change of location and address.
- f. In the event of noncompliance with the requirement of this section, the Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects the Contractor must comply with this section. Should noncompliance still be evident after the ten (10) day period, the Contractor shall forfeit, to the District, as a penalty the maximum statutory allowable amount for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

- g. The prime Contractor shall be responsible for compliance with this section.

15.3 Permits and Licenses:

- a. The Contractor shall obtain and keep current (including his/her Contractor's license) all permits and licenses that are required for the performance of his/hers work by all laws, ordinances, rules and regulations, or orders of any office and/or body lawfully empowered to make or issue the same.
- b. In addition, Contractor shall obtain and keep current all permits and licenses required for the work of improvement and pay all fees relating thereto, including, but not limited to, utility fees and shall provide the District with documentation of the actual costs expended by Contractor with regard to these items.

15.4 Sales and Payroll Taxes: Each Contractor, subcontractor and material supplier shall include all sales tax and payroll taxes required by law.

15.5 Responsibility for Compliance with CAL/OSHA:

- a. All work, materials, work safety procedures and equipment shall be in full accordance with the latest Cal/OSHA rules and regulations.
- b. Contractor warrants that he/she and each of his/her subcontractors shall, in performance of this Contract, comply with each and every compliance order issued pursuant to Cal/OSHA. The Contractor assumes full and total responsibility for compliance with Cal/OSHA standards by his/her subcontractors as well as himself/herself. The cost of complying with any compliance order and/or payment of any penalty assessed pursuant to Cal/OSHA shall be borne by the Contractor. Contractor shall defend, save, keep and hold harmless the District, and all officers, employees, and agents thereof, from all liabilities, costs, or expenses, in law or in equity, that may at any time arise or be set up because of Contractor's or a subcontractor's non-compliance or alleged non-compliance with Cal/OSHA requirements. Nothing contained herein shall be deemed to prevent the Contractor and his/her subcontractors from otherwise allocating between themselves responsibility for compliance with Cal/OSHA requirements; provided, however, that the Contractor shall not thereby be, in any manner whatsoever, relieved of his/her responsibility to the District as hereinabove set forth.

15.6 Apprentices: Contractor agrees to be bound by and comply with the provisions of Sections 1777.5 et seq. of the Labor code in respect to apprentices.

15.7 Hours of Work:

- a. Eight (8) hours of labor shall constitute a legal day's work upon all work done hereunder, and it is expressly stipulated that no worker employed at any time by the Contractor or by a subcontractor or subcontractors under this Contract, upon the work or upon any part of the work contemplated by this Contract, shall be required or permitted to work here on more than eight (8) hours in any one calendar day except as provided or permitted in Sections 1810 to 1815, inclusive of the Labor Code of California, all the provisions whereof are deemed to be incorporated herein, and it is further expressly agreed that for each and every violation of this stipulation the Contractor shall forfeit to the District, as a penalty, \$25.00 for each worker employed in the execution of this Contract by the Contractor or by any subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in violation of the provisions of said sections of the Labor Code.
- b. The Contractor and each subcontractor shall keep an accurate record showing the name of and actual hours worked by each worker employed by him/her in connection with the

work contemplated by this agreement. The record shall be kept open at all reasonable hours to inspection by the District or its officers or agents and by the Division of Labor Law Enforcement of the Department of Industrial Relations.

- c. Contractor understands that the Project may dictate a non-standard work week, and if required the Project schedule and the scheduling of employees or subcontractors should be adjusted to provide for scheduled work during the non-standard work week schedule, without the incurrence of any additional charges, such as over-time, et cetera.

- 15.8 Water Pollution Prevention Plan: Contractor shall be responsible for paying the necessary permit fees and complying with State Water Resources Control Board Order No. 99-08-DWQ; 2009-0009-DWQ; NPDES General Permit No. CAS 000004 implementing provisions of the Clean Water Act relating to storm water discharges. Contractor must obtain the necessary permits from the State Water Resources Control Board and develop and implement a Storm Water Pollution Prevention Plan in accordance with the State Water Resources Control Board requirements prior to commencing any portion of construction which will disturb land (i.e.; excavation, grading, etc.). The plan shall address all potential sources of pollutants which may enter the storm water system, it must explain what steps will be taken during construction to minimize the risk of storm water contamination and must address management procedures to be utilized during construction to prevent pollution discharges such as spills, leaking, and dumping.

The plan shall become the property of the District. A copy of said plan shall be provided to district and upon request contractor shall certify, in writing, compliance with the relevant rules, regulations and laws. Additional information regarding State Water Resources Control Board requirements can be obtained from State Water Resources Control Board, Division of Water Quality, Attention:

Storm Water Permit Unit, P.O. Box 1977 Sacramento, CA 95812-1977. Telephone Number (916) 657-0903.

- 15.9 Codes and Regulations: All work and materials shall be in full accord with the latest codes, rules and regulations, including but not limited to the following:

Rules of Local Utilities  
Calif. Electrical Code  
National Board of Fire  
Underwriters and/or  
State Fire Marshall or  
Applicable DSA  
Requirements  
State Codes and Ordinances  
  
State Industrial Accident  
Commission's Safety Orders  
Calif. Plumbing Code  
Calif. Building Code

Contractor shall hold the District harmless for Contractor's failure to comply with any law or regulation affecting Contractor's performance on this project. Certain provisions are set forth herein however, the existence of these provisions does not excuse the Contractor from complying with other statutory requirements or provisions which are not set forth in these contract documents and it is Contractor's responsibility to be, or become familiar with the various federal, state and local laws which govern Contractor's performance.

16. CONCEALED CONDITIONS: Contractor has examined the job site, the contract documents, and the applicable building codes, laws, and regulations that govern the conduct of the work and has made such investigation as he/she deems appropriate and therefore assumes all risk and expense in dealing with subsequently discovered concealed

conditions that could have been discovered through reasonable and diligent inspection and investigation. In the event Contractor encounters rock, ground water, underground structures, or utilities or other underground or concealed conditions or any hazardous material or condition in the site or existing structures if any, unknown to Contractor, Contractor shall immediately notify District and Architect of such condition in writing.

Contractor shall discontinue any work affected by the concealed conditions, shall immediately cover, barricade and protect the subject area and shall obtain further direction from District and Architect prior to continuing any work affected by the discovered condition. Should Contractor, his/her subcontractors, or officers, agents or employees proceed without further direction from the District and Architect, Contractor does so at his/her own risk and expense.

17. CONDUCT OF WORK: The Contractor shall permit the District to do other work in connection with the project by contract or otherwise, and Contractor shall at all times conduct his/her work so as not to impose hardship on the District or others engaged in the work. Contractor shall adjust, correct and coordinate his/her work with the work of others so that no discrepancies shall result in the whole work.
18. CONVICT MADE MATERIALS: No materials manufactured or produced in a penal or correctional institution shall be incorporated in the project under this Contract, except as permitted by California law.
19. DEFINITIONS:
  - 19.1 Action of the Board of Trustees is a vote of a majority of the District's governing board.
  - 19.2 Addenda are the changes in specifications, drawings, contract documents, and plans which have been authorized in writing by the Construction Manager, District or Architect, and which alter, explain, or clarify the contract documents. Addenda shall govern over all other Contract Documents. Subsequent addenda issued shall govern over prior addenda unless otherwise specified in the addenda.
  - 19.3 Approval means written authorization through action of the governing board. The board has delegated to the District Administrator the authority to approve certain modifications and Construction Change Directives.
  - 19.4 The Contract Documents consist of the Agreement between District and Contractor (hereinafter the Agreement or Contract), Conditions of the contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to bid, instructions to bidders, notice to bidders, and the requirements contained in the Bid Documents, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is a written amendment to the Contract signed by both parties, a Change Order, a Construction Change Directive, or a written order for a minor change in the Work issued by the Architect. The Contract Documents collectively form the Contract. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a written Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind between the Architect and Contractor, between the District and any Subcontractor or Sub-Subcontractor, or between any persons or entities other than the District and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.
  - 19.5 Construction Manager - the District may be represented by a Construction Manager. Construction Manager and Project Manager are synonymous.
  - 19.6 Days All references to "days" in the contract documents shall mean calendar days unless otherwise specified.
  - 19.7 Professional Inspector is the individual retained by the District to inspect the work for compliance with plans and specifications and laws and regulations.
  - 19.8 The Drawings are graphic and pictorial portions of the Contract Documents prepared for the Project and approved changes thereto, where located and whenever issued, showing the design, location, and scope of work, generally including plans, elevations,

- sections, details, schedules, and diagrams as drawn or approved by the Architect.
- 19.9 Emergency shall be defined as a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage.
- 19.10 The Project is the complete construction of the Work performed in accordance with the Contract Documents.
- 19.11 The Project Manual is the volume assembled for the Work which may include, without limitation, the bidding requirements, sample forms, Conditions of the Contract, and Specifications.
- 19.12 Safety Orders are those issued by any cognizant city, county, state or federal agency
20. DEFERRED APPROVALS: Contract Documents which require deferred approval items are meant to be for illustration purposes only. Contractor is responsible for all deferred approval requirements set forth in the Contract Documents. Contractor is responsible to comply with all laws, building codes, and regulations necessary to obtain all necessary approvals. Contractor shall not be granted an extension of time for failure to obtain necessary approvals due to failure to comply with laws, building codes, and other regulations (including Title 24 of the California Code of Regulations). Contractor shall schedule all deferred approval items in its progress schedule pursuant to Article 37. If Contractor fails to include deferred-approval items in its schedule which results in a critical path delay, then Contractor shall be subject to the assessment of liquidated damages.
21. DIMENSIONS: All dimensions throughout the drawings are to be calculated. Where doubts as to a dimension exists the Architect shall determine the correct dimensions.
22. DISTRICT'S REMEDIES FOR DEFECTIVE CONSTRUCTION AND/OR DEFICIENT PERFORMANCE: In addition to any other remedy afforded to District by law, the District, may exercise, at its option, any remedy, or combination thereof, set forth herein as follows:
- 22.1 Faulty Labor and Materials:
- a. Neither final payment nor any provision in the Contract documents shall relieve the Contractor of responsibility for faulty materials or workmanship, and unless otherwise specified, he/she shall remedy any defects due thereto and pay for any damages to other work, resulting therefrom which shall appear within the warranty period.
- d. If it is necessary in order to protect persons or property or, in the alternative, if the District deems it expedient to correct work damaged or not done in accordance with the contract, District may correct said work and deduct from monies otherwise due Contractor, a sum sufficient to compensate District for correction of the damage or improperly installed work.
- 22.2. Condemned Materials:
- a. The contractor shall promptly remove from the premises all work condemned by the Inspector or Architect as failing to conform to the Contract, whether incorporated or not, and the Contractor shall promptly replace and re-execute the work in accordance with the Contract and without expense to the District and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.
- b. If the Contractor does not remove such condemned work within a reasonable time, fixed by written notice, the District may remove it and may store the material at the expense of the Contractor. If the Contractor does not pay the expense of such removal within ten (10) days time thereafter, the District may, upon ten (10) days written notice, sell such materials at auction or at private sale and shall account for the net proceeds thereof, after

deducting all the costs and expenses that should have been borne by the Contractor. In the event the net proceeds are not sufficient to compensate for the costs and expenses that should have been borne by Contractor, District may deduct from monies otherwise due Contractor a sum sufficient to compensate for the costs and expenses that should have been borne by the Contractor.

- 22.3 The District's Right to Perform Work: If the Contractor neglects to prosecute the work properly or fails to perform any provision of, or fails to correct work in accordance with the contract documents, the District, by written order, may order the Contractor to stop the work or any portion thereof, until the cause for such order has been eliminated; however, if Contractor fails to correct the cause, or fails to make satisfactory arrangements with the District to correct the cause for the order within seven (7) calendar days of the written order, the District may, without prejudice to any other remedy District may have, correct such deficiencies or causes for said order and may deduct the cost thereof from the payment then or thereafter due the Contract. The right of the District to stop work shall not give rise to a duty on the part of the District to exercise its right for the benefit of the Contractor or for any other person or entity and in times of such work stoppage, Contractor shall be responsible for continuing job safety and job security.

22.4 Termination of Contract:

- a. If the Contractor refuses or fails to prosecute the work or any separable part thereof with such diligence that will ensure its completion within the time specified, or any extension thereof, or fails to complete said work within such time, or withholds, or threatens to withhold continued work regardless of the reason for same, or if the Contractor should be adjudged bankrupt or if he/she makes a general assignment for the benefit for his/her creditors, or if he/she shall make an assignment for any other reason without the express written consent of the District, or if a receiver should be appointed on account of Contractor's insolvency or if Contractor refuses or fails, except in cases for which an extension of time is provided, to supply enough properly skilled workers or proper material to complete the work at the time specified, or if Contractor fails to make prompt payment to subcontractors or for material or labor, or disregards laws, ordinances, or instructions of District, District's Architect or District's inspector, or if Contractor or any of his/her subcontractors should otherwise violate a provision of the contract, or if Contractor or any of his/hers subcontractors should perform work in a negligent or dangerous manner, or install or construct any portion thereof so that the work does not comply with the drawings and specifications, including any amendments thereto, or does not meet generally recognized industry standards for workmanlike quality, District may, without prejudice to any other rights or remedy, serve written notice upon Contractor of District's intention to terminate Contractor's control over the project, terminate Contractor's right to complete the contract or terminate this contract. Such notice shall contain the reasons for such intention to terminate, and Contractor shall immediately cease any and all violations of the terms of this contract, ordinances, or laws and shall correct to the District's satisfaction, or make satisfactory arrangements to correct to District's satisfaction, within seven (7) days, from the date of said notice, any and all deficient conditions. If Contractor, after proper notice, fails to cease and desist or fails to cure deficiencies within the said seven (7) day period, District may terminate Contractor's control over the project, terminate Contractor's right to complete the contract or terminate this agreement by written notice to Contractor, said termination shall be effective upon delivery of written notice to Contractor, his/her officers, agents or employees, or notice by certified mail to Contractor's business address. Thereafter, District may exercise any and all remedies as provided for in this agreement or by law.
- b. In the case of termination, Contractor shall not be entitled to receive any further payment until the project is completed. In the event of termination, District shall immediately serve written notice thereof upon the Surety consistent with the terms and conditions set forth in the performance bond incorporated within these contract documents. Surety shall not be entitled to reappoint or contract with Contractor to complete this project without the express written consent of the District. Upon termination, Contractor shall be ejected

from the project and District may without liability for so doing, take possession of and utilize in completing the work, such materials, appliances, plant, and other property belonging to Contractor as may be on the site of the work and necessary therefore.

- c. If the unpaid balance of the contract price exceeds the expense of finishing the work, including compensation to District for additional architectural, managerial, legal, and administrative services, such excess shall be paid to Contractor. If such expense shall exceed such unpaid balance, Contractor shall pay the difference to the District. Notwithstanding the foregoing provision, this contract may not be terminated or modified where a trustee in bankruptcy has assumed the contract pursuant to 11 U.S.C., Section 365 of the Federal Bankruptcy Act.

22.5 Additional Remedies: The foregoing provisions are in addition to and not in limitation of any other rights and remedies available to the District. The District may, at any time Contractor's performance or any subcontractor's performance is such to call into question Contractor's or the subcontractor's ability or capacity to properly, and in good workmanlike manner, perform his/her obligations in accordance with the plans and specifications and within the stated time for completion, demand assurances from the Contractor in any form acceptable to District (i.e., additional bond, written addendum, modification of the contract, additional staffing, etc.) and Contractor's failure to provide adequate assurance shall constitute a material breach of the contract and the District may suspend its performance and exercise any other right or remedy provided within the contract documents or by law.

#### 22.6 TERMINATION BY THE DISTRICT FOR CONVENIENCE:

- a. The District may terminate the performance of Work under this Contract in accordance with this clause in whole, or from time to time in part, whenever the District shall determine that such termination is in the best interest of the District. Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which performance of the Work under the contract is terminated, and the date upon which such termination becomes effective. After receipt of a Notice of Termination, and except as otherwise directed by the District, the Contractor shall:
  - i. Stop Work under the contract on the date and to the extent specified in the Notice of Termination;
  - ii. Place no further orders or subcontracts for materials, services or facilities except as necessary to complete the portion of the Work under the contract which is not terminated;
  - iii. Terminate all orders and subcontracts to the extent that they relate to the performance of the Work terminated by the Notice of Termination;
  - iv. Assign to the District, in the manner and at the times, and to the extent directed by the District, all of the right, title and interest of the Contractor under the orders and subcontracts so terminated. The District shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.
  - v. Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts with the approval or ratification of the District, in writing, and to the extent it may require. Its approval or ratification shall be final for all the purposes of this clause;
  - vi. Transfer title to the District, and deliver in the manner, at the times, and the extent, if any, directed by the District, (a) the fabricated and non-fabricated parts,

Work in process, completed Work, supplies and other material produced as a part of, or acquired in connection with the performance of, the Work terminated by the Notice of Termination; and (b) the completed or partially completed drawings, information and other property which, if the contract had been completed, would have been required to be furnished to the District;

- vii. Use its best efforts to sell, in the manner, at the times, to the extent, and at the prices or prices that the District directs or authorizes, any property of the types previously referred to herein, but the Contractor (a) shall not be required to extend credit to any purchaser; and (b) may acquire such property under the conditions and at a price or prices approved by the District. The proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the District to the Contractor under this contract or shall otherwise be credited to the price or cost of the Work covered by this contract or paid in such other manner as the District may direct;
  - viii. Complete performance of such part of the Work as shall not have been terminated by the Notice of Termination; and
  - ix. Take such action as may be necessary, or as the District may direct, for the protection and preservation of the property related to this contract which is in the possession of the contractor and in which the District has or may acquire an interest.
- b. After receipt of a Notice of Termination, the Contractor shall submit to the District its termination claim, in the form and with the certification the District prescribes. Such claim shall be submitted promptly but in no event later than one (1) year from the effective date of termination, unless one or more extensions in writing are granted by the District upon request of the Contractor made in writing within such 1-year period or authorized extensions. However, if the District determines that the facts justify such action, it may receive and act upon any such termination claim at any time after such 1-year period or extension. If the Contractor fails to submit his/her/its termination claim within the time allowed, the District may determine, on the basis of information available to the District, the amount, if any, due to the Contractor because of the termination. The District shall then pay to the Contractor the amount so determined.
- c. Subject to the previous provisions, the Contractor and the District may agree upon the whole or any part of the amount or amounts to be paid to the Contractor because of the total or partial termination of the Work under this Paragraph. The amount or amounts may not include profit on Work not performed to date, but may include profit on Work completed up to the time of Notice of Termination. However, such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total contract price as reduced by the amount of payments otherwise made and as further reduced by the contract price of Work not terminated. The contract shall be amended accordingly, and the Contractor shall be paid the agreed upon amount.
- d. If the Contractor and District fail to agree, as the previous subparagraph provides, on the whole amount to be paid to the Contractor because of the termination of Work hereunder, the District shall determine, on the basis of information available to the District, the amount, if any, due to the Contractor by the reason of the termination and shall pay to the Contractor the amounts determined as follows:
  - i. For all Contract Work performed before effective date of Notice of Termination, the total (without duplication of any items) of:
    - a. The cost of such Work;



- b. The cost of settling and paying claims arising out of the termination of Work under subcontractors or orders as previously provided. This cost is exclusive of the amounts paid or payable on account of supplies or materials delivered or services furnished by the Contractor before the effective date of the Notice of Termination. These amounts shall be included in the cost on account of which payment is made for the cost of Work previously provided; and
  - c. A sum, as profit on the cost of the Work completed to the time of receipt of the Notice of Termination, that the District determines to be fair and reasonable. But, if it appears that the Contractor would have sustained a loss on the entire Contract had it been completed, no profit shall be included or allowed, and an appropriate adjustment shall be made reducing the amount of the settlement to reflect the indicated rate of loss; and
- ii. The reasonable cost of the preservation and protection of property incurred as previously provided. The total sum to be paid to the Contractor shall not exceed the total Contract price as reduced by the amount of payments otherwise made and as further reduced by the Contract Price of Work not terminated. Except for normal spoilage, and except to the extent that the District shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor the fair value, as determined by the District, of property which is destroyed, lost or stolen or damaged to the extent that it is undeliverable to the District, or to a buyer as previously provided.
- e. The Contractor shall have the right to dispute as provided hereinafter in the subparagraph entitled "remedies" from any determination the District makes under the previous subparagraphs. But, if the Contractor has failed to submit its claim within the time provided and has failed to request an extension of such time, it shall have no such right of appeal. In any case where the District has determined the amount owed, the District shall pay to the Contractor the following:
  - i. If there is no right of appeal hereunder or if timely appeal has been taken, the amount so determination by the District; or
  - ii. If a "remedies" proceeding is initiated, the amount finally determined in such "remedies" proceeding.
- f. In arriving at the amount due the Contractor under this clause there shall be deducted:
  - i. All unliquidated advance or other payments on account theretofore made to the Contractor, applicable to the terminated portion of the contract;
  - ii. Any claim which the District may have against the Contractor in connection with the Work; and
  - iii. The agreed price for, or the proceeds of sale of, any materials, supplies or other things kept by the Contractor or sold under the provisions of this clause and not otherwise recovered by or credited to the District.
- g. If the termination hereunder be partial, before the settlement of the terminated portion of this contract, the Contractor may file with the District a request in writing for an equitable adjustment of the price or prices specified in the contract relating to the continued portion of the contract. Such equitable adjustment as may be agreed upon shall be made in the price or prices. Nothing contained herein shall limit the right of the District and the Contractor to agree upon the amount or amounts to be paid to the continued portion of

the contract when the contract does not contain an establishes contract price for the continued portion.

- h. Remedies: All claims, counter-claims, disputes and other matters in question between the District and Contract arising out of or relating to this Contract or its breach will be decided by way of arbitration as set forth herein or in a court of competent jurisdiction within the State of California.
  - i. The Contractor understands and agrees that the forgoing termination of Contract for convenience provisions shall be interpreted and enforced pursuant to cases interpreting and enforcing similar provisions in federal procurement contracts.
- 23. **INDEPENDENT CONTRACTOR:** Contractor and District agree that there is no agency or employment relationship between District and Contractor, or any of Contractor's officers, agents or employees or subcontractors and that Contractor in performing its contractual obligations acts entirely as an independent contractor.
- 24. **INSPECTION BY DISTRICT:** The Contractor shall at all times maintain proper facilities and provide safe access for inspection by the District to all parts of the work, and to the shops wherein the work is in preparation. Where the Specifications require work to be specially tested or approved, it shall not be tested or covered up without timely notice to the District of its readiness for inspection and without the approval thereof or consent thereto by the latter. Should any such work be covered up without such notice, approval, or consent, it must, if required by District, be uncovered at Contractor's expense for examination. Contractor shall pay for any necessary retesting and/or re-inspection required because of work that fails to comply with the requirements of the contract documents.
  - 24.1 Contractor must request all inspections, in writing, using the Inspection Request Form provided by the District. Contractor shall also make all such requests for inspection on no less than twenty-four (24) hours' notice.
- 25. **INSURANCE:** The Contractor shall not commence work under this Contract until he/she has obtained all insurance required by these General Conditions and which insurance has been approved by the District and copies of certificates of such insurance are filed with the District. The Contractor shall not allow any subcontractor to commence work on a subcontract until such insurance has been obtained. Three (3) copies of insurance certificates evidencing the required coverage shall be furnished to the District. Certificates of insurance must indicate that the coverage cannot be reduced or canceled until THIRTY (30) days written notice has been furnished District. Such insurance shall name district, its officers, agents, and employees as additional insured. Contractor's liability insurance policy shall be endorsed as primary insurance.
  - 25.1 **Liability Insurance:** The Contractor shall carry Bodily Injury Liability Insurance in an amount not less than \$2,000,000 combined single limit, per occurrence, \$3,000,000 aggregate. Contractor shall carry Automobile Liability Insurance in an amount not less than \$1,000,000. Contractor's insurance SHALL BE ENDORSED AS PRIMARY. District, its officers, agents, Architects, and employees shall be named as ADDITIONAL INSUREDS.
  - 25.2 **Workers' Compensation Insurance:** The Contractor shall comply with the Workers' Compensation Insurance requirements of the State of California. The Contractor shall take out and maintain during the life of this Contract, Workers' Compensation Insurance and Employer's Liability Insurance for all of his/her employees employed at the site of the project and, in case any work is sublet, the Contractor shall require all subcontractors to provide Workers' Compensation Insurance and Employer's Liability Insurance for all of the latter's employees unless such employees are covered by protection afforded by the Contractor.

In signing this Contract, the Contractor makes the following 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.

- 25.3 Builders Risk/"All Risk" Insurance: The Contractor, during the progress of the Work and until final acceptance of the Work by District upon completion of the entire Contract, shall maintain Builder's Risk/"All Risk," course-of-construction insurance issued on a completed value basis on all insurable Work included under the Contract Documents. Coverage is to provide extended coverage and insurance against vandalism, malicious mischief, perils of fire, sprinkler leakage, civil authority, sonic boom, collapse, wind, lightning, smoke, riot, debris removal (including demolition), and reasonable compensation for the Architect's services and expenses required as a result of such insured loss upon the entire Work which is the subject of the Contract Documents, including completed Work and Work in progress to the full insurable value thereof. Such insurance shall include the District, the Architect and the Construction Manager as an additional named insured and any other person with an insurable interest designated by the District as an additional named insured.

The Contractor shall submit to the District for its approval all items deemed to be uninsurable. The risk of the damage to the Work due to the perils covered by the Builder's Risk/All Risk" Insurance, as well as any other hazard which might result in damage to the Work, is that of the Contractor and the surety, and no claims for such loss or damage shall be recognized by the District nor will such loss or damage excuse the complete and satisfactory performance of the Contract by the Contractor.

- 25.4 All policies and certificates of insurance of the Contractor shall contain the following clauses:
- a. Insurers have no right of recovery or subrogation against the District (including its agents and agencies as aforesaid), it being the intention of the parties that the insurance policies so effected shall protect both parties and be the primary coverage for any and all losses covered by the above-described insurance.
  - b. The clause "other insurance provisions" in a policy in which the District is named as an insured, shall not apply to the District.
  - c. The insurance companies issuing the policy or policies shall have no recourse against the District (including its agents and agencies as aforesaid) for payment of any premiums or for assessments under any form of policy.
  - d. Any and all deductibles in the above described insurance policies shall be assumed by and be the account of, the Contractor.

25.5 Indemnification:

- a. Contractor will indemnify and hold harmless Colusa Unified School District, its Board of Trustees, and its officers, agents, employees and Architects from and against all claims, damages, losses, demands, liability, costs and expenses including attorney fees arising out of or resulting from the performance of this Contract or the prosecution of work under it, whether such claims, damages, losses, demands, liabilities, costs and expenses are caused by the Contractor, Contractor's agents, servants or employees or subcontractors employed on the project, the agents, servants or employees or any person or persons or products installed on the project by the Contractor or subcontractors.
- b. Contractor at his/her own expense and risk shall defend any and all actions, suites, or other legal proceedings that may be brought or instituted against Colusa Unified School District, the members of its governing body, its officers, agents, employees, and Architects or any such claims, damages, losses, demands, liabilities, costs or expenses.
- c. The indemnification obligations hereunder shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the

Contractor or any subcontractors under workers' compensation acts, disability benefit acts or other employee benefits acts; however, the obligations of the Contractor hereunder shall not extend to the liability of the Architect, his/her agents or employees arising out of (a) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications or (b) the giving of directions or instructions by the Architect, his/her agents or employees, provided such giving is the primary cause of the injury or damage. Contractor shall not be obligated to the District hereunder if such injury, harm or damage is caused solely and exclusively by the Architect's negligence.

- d. This indemnification provision shall be applicable to any infringement or alleged infringement of the patent rights of any person or persons, firm or corporation in consequence of the use thereof by the Contractor. Notwithstanding any of the above, the Contractor shall whenever it is necessary keep and maintain at his/her sole cost and expense during the course of his/her operations under this Contract such warnings, signs, and barriers as may be required to protect the public. The provisions of the preceding sentence shall not impose any liability upon Colusa Unified School District or the Architect or the members of the Colusa Unified School District governing body or the officers, agents and employees of either of them.
- e. This indemnification provision shall also extend to claims, damages, losses, demands, liabilities, costs and expenses for injury, harm, or damages occurring after completion of the project as well as during the work's progress. In each and every instance in which the Contract is required to indemnify or hold the District harmless, that obligation includes the obligation to defend the District.

26. INTERPRETATION OF CONTRACTS/DRAWINGS/SPECIFICATIONS:

- 26.1 The contract documents, including the drawings and specifications are to be read as an integrated document. The Contractor shall immediately report to the Architect any discrepancies or errors which are contained within the documents. Figured dimensions shall be followed and the Contractor shall make all additional measurements necessary for the work and shall be responsible for their accuracy. Before ordering any material or doing any work, the Contractor shall verify all measurements and shall be responsible for the correctness of same. It is the intent of the drawings and specifications to show and describe complete installations. Items shown but not specified or specified but not shown shall be included unless specifically omitted. The contract documents, including the drawings and specifications, shall be deemed to include and require everything necessary and reasonably incidental to the completion of all work described and indicated on the drawings whether particularly mentioned or shown or not. Work indicated on the drawings and not mentioned in the specifications, or vice versa, shall be furnished as though fully set forth in both. In case of disagreement or conflict between or within standards, specifications, and drawings, the most stringent, higher quality and greater quantity of work shall be included in the bid.
- 26.2 If an error(s) appear(s) in the drawings or specifications or in work done by others affecting this work, the Contractor shall immediately notify the Architect in writing. If the contractor proceeds with the work so affected without having given such written notice and without receiving the necessary approval, decision or instructions in writing from Architect, then he/she shall not have a valid claim against the District for the cost of so proceeding and shall make good any resulting damage or defect. No oral approval, decision, or instruction shall be valid or be the basis for any claim against the District, its officers, employees or agents. The foregoing includes typographical errors in the specifications or notational errors in the drawings where the interpretation is doubtful or where an error exists, and the error is sufficiently apparent as to place a reasonably prudent contractor on notice that should he/she elect to proceed, he/she is doing so at his/her own risk.

27. LAYING OUT OF WORK:

- 27.1 The Contractor shall, immediately upon entering the Project Site to begin work, locate all reference points and bench marks and take all necessary precautions to prevent their destruction; layout all work and be responsible for all lines, elevations and measurements of buildings, utilities, and other work executed under the Contract. He/she shall verify figures and elevations shown on the Drawings before laying out work, and will be held responsible for any error resulting from his/her failure to do so. Cost of surveying services required to establish and check property elevations and to correctly locate and establish property and construction lines, streets, sidewalks, curbs, etc., shall be included in the Contract sum. Contractor shall be responsible for encroachments on the rights or property of the public or surrounding property, and for encroachments on easements noted and required setbacks, and he/she shall, without cost to the District, take down, and rebuild in an approved manner any portion of a building, wall, fence or any other item that is constructed over the property lot easement or setback line.
- 27.2 Where work of one trade joins or is on other work, there shall be no discrepancy when said is completed. In engaging one kind of work with another, marring or damaging same will not be permitted. Should improper work of any trade be covered by another that results in damage or defects, the whole work affected shall be made good by the Contractor without expense to the District.
- 27.3 The Contractor shall consult the other Contractors on the project, if any, and the Architect, regarding the installation of such other Contractor's work before starting the various phases of his/her work, in order to avoid the possibility of the removal of his/her work to permit others to install their work.
- 27.4 Assistance required by the Architect in obtaining measurements or information on the work shall be furnished fully and efficiently by the Contractor.
28. LIQUIDATED DAMAGES: The District and Contractor understand and agree that if the work is not completed within the time of completion required by this Agreement, the District will suffer damage. The parties agree that it will be impractical and infeasible to determine the amount of actual damage and, therefore, it is agreed that Contractor shall pay to District as fixed and liquidated damages, and not as a penalty, the sum of \$500 for each calendar day of delay until all work is completed and accepted. Contractor and District agree that the sum fixed as liquidated damages is a reasonable and good faith estimate of the actual amount necessary to compensate District for damages incurred as the result of delay when viewed prospectively upon the making of this Contract. Contractor and his/her surety shall be liable for the amount thereof, which shall be deducted from any payments due to or to become due to Contractor. Contractor understands and agrees that nothing set forth in these Contract Documents shall be construed to limit the District's right to collect actual damages and the District shall have the option to exercise all other remedies afforded by law including, but not necessarily limited to, recovery of actual damages that the District incurs as a result of any delay in performance.
29. MANUFACTURER'S MAINTENANCE INSTRUCTIONS, MANUAL AND WARRANTIES: Notwithstanding Contractor's warranties as identified in these contract documents, Contractor shall provide to District all relevant manuals, instructions and manufacturer warranties for all equipment, systems, and appliances installed in the project, including, but not limited to, automatic sprinklers, kitchen appliances, heating, air conditioning, and ventilation systems, climate control systems, energy monitoring/ control systems, alarms, automatic lighting systems, elevators, etc. In addition, Contractor or his/her manufacturer, representative or other agent shall provide District designee(s) with initial, basic instruction in the operation of any installed equipment/system(s).
30. MATERIALS:

30.1. New Materials: Materials shall be new and of quality equal to that specified. When not particularly specified, materials shall be the best of their class or kind. The Contractor shall, if required, submit satisfactory evidence as to the kind and quality of material. Price, fitness and quality being equal, preference shall be given to products made in California. If a conflict(s) exists in the drawings or specifications regarding the type, kind or quality of materials to be used, the conflict shall be resolved in favor of using the superior type, kind or quality material unless use of the inferior type, kind or quality of material is authorized in writing by the District.

30.2. Non-Utilization of Asbestos Material:

- a. No asbestos or asbestos containing products shall be used in this construction or in any tools, devices, clothing or equipment used to affect this construction. Asbestos and/or asbestos containing products shall be defined as all items but not limited to chrysotile, crocidolite, amosite, anthophyllite, tremolite and actinolite. Any and all material containing greater than one tenth of one percent (>.1%) asbestos shall be defined as asbestos-containing material. Any disputes involving the question of whether or not material contains asbestos shall be settled by electron microscopy. The costs of any such tests shall be paid by the Contractor. All work or materials found to contain asbestos or work or material installed with asbestos containing equipment will be immediately rejected and this work will be removed at no additional cost to the Owner.
- b. Decontamination and removal of work found to contain asbestos or work installed with asbestos containing equipment shall be done only under the supervision of a qualified consultant, knowledgeable in the field of asbestos abatement and accredited by the Environmental Protection Agency. The asbestos removal contractor shall be an EPA accredited contractor qualified in the removal of asbestos and shall be chosen and approved by the asbestos consultant who shall have the sole discretion and final determination in this matter. The asbestos consultant shall be chosen and approved by the Architect or the Owner who shall have sole discretion and final determination in this matter. The work will not be accepted until asbestos contamination is reduced to levels deemed acceptable by the asbestos consultant.
- c. Costs of all asbestos removal, including but not necessarily limited to the cost of the asbestos removal Contractor, the cost of the asbestos consultant, analytical and laboratory fees, time delays, additional costs as may be incurred by the Owner and/or his agent(s) shall be borne entirely by the Contractor.
- d. Contractor shall execute a declaration under penalty of perjury that no asbestos or asbestos containing products have been utilized in the project. In addition, Contractor shall certify that no lead based paint has been used in the project. Said declaration shall be provided to District at the project closeout.

30.3. Equals:

- a. Wherever in the contract documents any material or process is indicated or specified by patent or by proprietary name or by name of manufacturers, and except where any material or product is expressly specified for the purpose of maintaining uniformity of design or function and designated as no substitutes allowed, such specifications are used for the purpose of facilitating the description of the materials or processes desired and are in no way intended to restrict bidding. Such specifications shall be deemed to be followed by the words "or equal", and the Contractor may offer any material or process which shall be equal in every respect to that indicated or specified; provided, however, that if the material, process or article offered by the Contractor is deemed to not be equal in every respect to that specified by the District, at the District's discretion, then the Contractor must furnish the material or article specified, or one that in the opinion of the Architect is the quality thereof in every respect. The burden of persuasion of the equality to the satisfaction of the Architect shall be solely upon the Contractor. Requests for equals shall be submitted not later than 35 days after contract signing so as to avoid

delay, and in no event will the time for completion of the project be extended on account of request for an equal. Failure to submit requests for equals in accordance with this article shall constitute a waiver of the right to substitute equals for specified items. Requests shall be made on a form provided by the Architect.

- b. The Contractor shall submit for approval to the Architect/Engineer and District, a list of all materials proposed to be used which differ in any respect from materials specified. This list shall include all materials which are proposed by the subcontractors as well as by the Contractor, for use in work under the Contract, whether or not specifically mentioned in the specifications.
- c. The list must also include the cost figures received by the Contractor for the material or materials which are submitted for approval as an equal, together with the cost figures of the specified material or materials for which equals are proposed. Failure to propose any item prior to the commencement of work, and within the time specified after the signing of the Contract, will be deemed sufficient cause for denial of the request for use of a proposed equal.
- d. If, after the Architect has favorably reviewed materials or equipment, it is found that the materials or equipment presented and favorably reviewed for use are not justifiably equal in quality and performance to the product originally specified, the Architect retains the right to revoke said favorable review, and to reject the materials or equipment without any additional cost.
- e. All materials shall be delivered so as to insure a speedy and uninterrupted progress of the work. Materials shall be stored so as to cause no obstruction and so as to prevent overloading of any portion of the structure on work site, and the Contractor, regardless of whether he/she stores materials on or off the site, shall be entirely responsible for damage or loss by weather, theft, vandalism, or other cause.
- f. After the Contract has been executed, the District and the Architect will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in the contract documents.
- g. By making requests for equals or substitutions, the Contractor:
  - i. represents that the Contractor has personally investigated the proposed substitute or equal product and determined that it is equal or superior in all respects to that specified;
  - ii. represents that the Contractor will provide the same warranty for the equal or the substitution that the Contractor would for that specified;
  - iii. certifies that the cost data presented is complete and includes all related costs under this Contract except the Architect's redesign costs, and waives all claims for additional costs related to the equal or the substitution which subsequently became apparent; and
  - iv. will coordinate the installation of the acceptable equal or substitute, making such changes as may be required for the work to be complete in all respects.
  - v. early occupancy shall not in any way affect the warranties provided pursuant to this contract;
  - vi. all requests for substitution of proposed equals shall be accompanied by a substitution request form as provided by the Architect;

- vii. represents that the proposed substitution does not affect dimensions unless shown on drawings and does not require design changes in the Contract Documents;
- viii. represents that the Contractor will pay for changes to the building design, including engineering design, detailing, and construction costs caused by the requested substitution;
- ix. represents that the proposed substitution will have no adverse effect on the work, the schedule, or specified warranty requirements; and
- x. represents that maintenance and service parts will be readily available for the proposed substitution.

31. MODIFICATION: The contract, including all contract documents therein, may be modified by mutual consent and in writing only.

32. NOTICE AND SERVICE THEREOF: Any notice from one party to the other under the Contract shall be in writing and shall be dated and signed by the party giving such notice or by a duly authorized representative of such party. Any such notice shall not be effective for any purpose whatsoever unless served in the following manner, (a) if the notice is given to the District, by personal delivery thereof to the Facility Planner of said District, or by depositing the same in the United States mail, enclosed in a sealed envelope, addressed to the District, postage prepaid and registered; (b) If the notice is given to the Contractor, by personal delivery thereof to said Contractor or to his/her duly authorized representative at the site of the project, or by depositing the same in the United States mail, enclosed in a sealed envelope, addressed to Contractors business address, postage prepaid and registered; and (c) if the notice is given to the surety or any other person, by personal delivery to such surety or other person, or by depositing same in the United States mail, enclosed in a sealed envelope, postage prepaid and registered.

33. OCCUPANCY PRIOR TO COMPLETION:

33.1. The District reserves the right to occupy, on written notice, any portion of the work at any time before completion and while work is in progress. In the event of such occupancy, the Contractor shall provide, without additional cost to the

District, suitable protection by means of fencing, barriers, posted signs or other methods as required to prevent persons other than those directly connected with the work from entering remaining areas where continuing work is being conducted, vehicles are operating, or materials are stored.

- a. Such occupancy by the District prior to final acceptance shall not be construed by the Contractor as being an acceptance of that part of the project so occupied, nor shall the Contractor be entitled to, or make demand for, additional compensation or extension of time because of such occupancy.
- b. Such occupancy by the District prior to final acceptance shall not be deemed to constitute a waiver of existing claims on behalf of the District or Contractor against each other.
- c. The metered cost of electricity, water, fuel, etc., for the occupied portions will be borne by the District from the start of such occupancy.
- d. The Contractor shall not be held responsible for any damage to the occupied portions of the project resulting from such occupancy by the District, unless attributed to the Contractor's failure to comply with subdivision a. above.



- e. Use and occupancy by the District prior to final acceptance shall not relieve the Contractor of his/her responsibility to provide and maintain all insurance and bonds required of the Contractor under the Contract until the work is completed and accepted by the District.

34. OVERLOADING:

- 34.1. If the Contractor shall cause, permit, or allow any part of the building or buildings to be overloaded by storing, piling or setting thereon any material or equipment, or by performing thereon any of his/her work, he/she shall do so at his/her sole risk, and he/she shall be solely responsible for any and all loss, damage, and/or injury arising or resulting therefrom.
- 34.2. All materials brought onto the site shall be stacked up in an orderly manner in a designated area not in conflict with the area where work is being performed.

35. PAYMENT: Contractor understands and agrees that all Applications for Payment must be submitted to District using forms approved in writing, by District for use with the project and must be accompanied by any and all other information required by any other provision of the Contract Documents (e.g., cash allowances, change orders, current schedule of values, et cetera). Pay Applications that are not submitted on the proper form or accompanied by any other documentation required by the Contract Documents will not be considered complete and will be returned to Contractor for correction and resubmission. Once the Pay Application is considered complete, all Pay Application requests shall be processed as follows:

- 35.1. Certificates of Payment: Subject to other conditions of these specifications, within seven (7) days after receipt of Contractor's monthly request for payment on account, during the progress of the work, the Architect shall issue certificates authorizing payment on account of the Contract, for labor and materials actually incorporated in place in the building in a satisfactory manner or stored in an insured or bonded storage facility or warehouse, in a sum not to exceed ninety percent (90%) of a reasonable value of such temporarily accepted work.
- 35.2. Progress Payments: If the District fails to make a progress payment within thirty (30) days after receipt of an undisputed and properly submitted payment request from Contractor, the District shall pay interest to Contractor in accordance with and in the amount set forth in the applicable provisions of California law.
  - a. Any payment request determined not to be a proper request suitable for payment shall be returned to the Contractor as soon as practical, but not later than seven (7) days after receipt. A request returned pursuant to this paragraph shall be accompanied by a document setting forth the reasons in writing why the payment request is not proper.
  - b. A properly submitted payment request shall be defined as the date upon which the District receives a payment request, certified in accordance with this Contract.

For purposes of this section, a "progress payment" includes all payments due contractors, except that portion of the final payment designated by the contract as retention earnings.

- 35.3. Proof of Value: Contractor shall submit to the Architect and to the Inspector vouchers or other satisfactory proof of the value of any work for which he/she claims payment on such account, and receipts showing that progress payments have been duly made on such contracts, and for materials furnished.
- 35.4. Inspector's Confirmation: All estimates of work performed during the preceding calendar month and all requests for payment thereof or for partial payment on account of equipment delivered but not installed, as herein provided for, shall be certified by the Inspector and countersigned by him/her before any certificate shall be given to Architect. If errors are found in a request for

payment, the errors shall be corrected by the Contractor, and the request resubmitted to the Architect and Inspector for approval, bearing the date of same as corrected.

- 35.5. Final Certificates: When the work is ready for acceptance by the District Contractor shall submit a request for final payment, the Architect shall so certify in writing to the Board of Trustees, and a certificate of acceptance will be issued to the Contractor which will bring his/her progress payment up to ninety percent (90%) of the Contract price, less sums withheld for liquidated damages, or other off-sets for defective work, if any.
- 35.6. Final Payment: A Notice of Completion will be filed by the District upon completion and acceptance of the work. Thirty-five (35) days after filing of such notice of completion payment due under the Contract, less amounts in satisfaction of stop notices and incomplete punch list items, will become due the Contractor and the Architect shall so certify to the District authorizing the final payment. District may withhold any reasonable sums payable to Contractor for any work that was not completed on said date or that is defective and ordered to be replaced, final payment for withholdings to be made when certified by the Architect in writing to District. A reasonable sum shall be defined as 150% of the amount of monies necessary to complete or correct the work.
- 35.7. Stop Notices: District shall withhold, from the next following payment to Contractor, 150% of any amount claimed in a stop notice timely filed with the District. Amounts withheld shall only be paid upon a valid release of stop notice or other resolution pursuant to governing law. Disputes regarding the validity of stop notices shall be resolved pursuant to governing law and shall not be subject to the dispute resolution provisions set forth in Public Contracts Code Section 20104 and these contract documents. Neither the final payment nor any part of the retained percentage shall become due until the Contractor delivers to the District a complete release of all stop notices arising out of this Contract, but the Contractor may, if any subcontractor refuses to furnish a release, furnish a bond satisfactory to the District, to indemnify District against any stop notice.

Contractor understands and acknowledges that public property may not be liened but that a subcontractor may file a stop notice with the District. Contractor shall inform all subcontractors regarding the invalidity of liens on public property and in the event a subcontractor erroneously records a lien against public property, Contractor shall remove or bear the expense incurred by District in removing the invalid lien, including all costs and reasonable attorney fees.

- 35.8. Payments Withheld: The District may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate of payment to such extent as may be necessary to protect the District from loss on account of:
- a. Defective work not remedied;
    - i. Payment for defective work shall not be made unless and until contractor provides written notice from its surety that surety waives the right to claim exoneration based on payment for defective work.
  - b. Claims filed or reasonable evidence indicating probable filing of claims;
  - c. Failure of the Contractor to make payments properly to subcontractors or for material or labor;
  - d. Conditions indicating that the Contract cannot be completed for the balance then unpaid;
  - e. Damage to another Contractor.
  - f. Delays in progress toward completion of the work, with the stipulated amount of liquidated damages being withheld for each day of delay for which no extension is granted.

35.9. Substitution of Securities: Upon the Contractor's request, the District will make payment of funds withheld from progress payments pursuant to the requirements of Public Contracts Code Section 22300, if the Contractor deposits in escrow with the District's treasurer or with a bank acceptable to the District, securities eligible for the investment under Government Code Section 16430 or bank or savings and loan certificates of deposit, upon the following conditions:

- a. The Contractor shall bear the expense of the escrow account including the expense of District and the escrow agent, either the District's Treasurer or the bank, in connection with the escrow deposit made;
- b. Securities or certificates of deposit to be placed in escrow shall be of a value at least equivalent to the amounts of retention to be paid to the Contractor pursuant to this section;
- c. The Contractor shall enter into an escrow agreement in the form set forth in Public Contracts Code Section 22300 and satisfactory to the District, which agreement shall include provisions governing inter alia;
  - i. the amount of securities to be deposited;
  - ii. the providing of powers of attorney or other documents necessary for the transfer of the securities to be deposited;
  - iii. conversion to cash to provide funds to meet defaults by the Contractor, including, but not limited to, termination of the Contractor's control over the work, stop notices filed pursuant to law, assessment of liquidated damages or other amounts to be kept or retained under the provisions of the Contract;
  - iv. decrease in value of securities on deposit;
  - v. the termination of the escrow upon completion of the Contract.
- d. The Contractor shall obtain the written consent of the surety to such agreement.

35.10. Off-Setting Obligations: District may off-set against payments required under this contract any monetary obligation from Contractor to District whether the obligation arises out of this project or otherwise.

36. PRE-CONSTRUCTION CONFERENCE: Prior to start of construction a conference will be called for the purpose of reviewing the construction program with the Contractor's representative. At the conference, detailed program, sequence of work, and methods of access to work site shall be reviewed. Representatives of the District, Architect, and Contractor shall be named, and District will establish requirements for request of payments, procedures for correspondence, etc.

37. PROGRESS SCHEDULE:

37.1 This section includes the preparation and submission of the schedules and reports specified herein, including the up to date maintenance thereof as required. Progress payments to the Contractor shall be withheld by the District until schedules are up to date.

37.2 Construction Schedule General Requirements: Contractor shall prepare and submit a detailed critical path method (CPM) schedule within twenty-one (21) calendar days of the formal notice to proceed. General requirements of the schedule shall include:

- a. a construction sequence that does not exceed the contract completion date.  
**IMPORTANT: PROGRESS SCHEDULES SUBMITTED TO THE DISTRICT UNDER**

**ARTICLE 37 MUST SHOW ONLY ACTUAL WORKING DAYS, IRRESPECTIVE OF WEEKENDS, HOLIDAYS, ETC., UNLESS WORK IS SCHEDULED TO ACTUALLY BE PERFORMED ON THOSE DATES.** The District anticipates that it is rare that work will be performed on weekends, holidays, etc., and as such anticipates that most progress schedules submitted in accordance with the requirements of Article 37 will reflect only a 5-day work week on the schedule. Failure to exclude weekends, holidays, and other non-working days or to exceed a five-day work week will result in the Progress Schedule being rejected and constitutes a material breach of the Contract.

- b. submittal/approval/fabrication and delivery sequences for all key materials and equipment on the project.
  - c. activities to reflect major inspections and testing of equipment.
  - d. utilize computerized software, such as Primavera, Promus, Aldegraph, or equal computerized CPM scheduling software.
  - e. use conventional critical path methods, principles, and definitions to satisfy the requirements of this specification.
  - f. use Precedence Diagramming Method (PDM) format.
- 37.3 Cost loading of all work activities shall be required. the cumulative amount of all cost loaded work activities shall equal the total contract price. Prorate overhead profit and general conditions on all activities for the entire project.
- 37.4 Procurement activities must be cost loaded to determine payment amounts for materials stored on site. If materials stored on site are not to be submitted for payment as such, cost loading of procurement items will not be required.
- 37.5 Original CPM Schedule Submittal: The project CPM schedule shall have a level of detail sufficient to reflect the various construction activities and monitor the project in a usable and readable manner. A minimum number of activities, including procurement activities, shall be required as determined by the Architect in accordance with the scope of the project.
- 37.6 The Contractor may elect to supply the services of a CPM scheduling consultant, and shall do so if adequate scheduling capabilities do not exist in-house.
- 37.7 The original submittal shall include the following:
- a. time scaled logic network diagram in order by building. (3 copies)
  - b. bar chart in order by building, by early start. (3 copies)
  - c. bar chart in order by trade, by early start. (3 copies)
  - d. eight and one-half inch by eleven inch (8-1/2" x 11") written reports for a), b) and c) above and a minimum of 3 copies of a full size (i.e., 24" x 36") color baseline schedule as well as all schedules as the schedule is updated throughout the project
  - e. a cost loaded report, including individual activity cost and estimated month projected payments for the entire length of the project, sorted by: 1) early start, 2) late start. the cost loading totals must equal the contract sum.
- 37.8 Schedule Maintenance and Updating: The project CPM schedule shall be updated on a monthly basis with the project status date (data date) being no more than ten (10) working days to the prior periodic submittal due date. Such report shall show actual progress on the schedule

compared to the plan. Progress payments to the Contractor shall be withheld by the District until schedules are up to date.

- 37.9 Periodic payment requests must include the current CPM schedule update at the time payment requests are submitted for processing. Progress payments to the Contractor shall be withheld by the District until schedules are up to date.
- 37.10 Each update submittal shall include the current time scaled logic network diagram and bar charts.
- 37.11 Select reports yielding the following sort of orders will be required.
- a. activity listing sorted by building (including site), by total float, by early start.
  - b. activity listing sorted by building (including site), by early start.
  - c. during the report sorted by building, by total float; comparing current update with prior update.
  - d. variance report sorted by building by total float; comparing current update with original schedule.
  - e. value of work performed for current period, sorted by building, by trade.
  - f. value of work performed to date, sorted by building, by trade.
- 37.12 Included in the CPM schedule update shall be a written narrative report detailing the following:
- a. a general discussion of progress since the prior update, including areas of work being accomplished earlier or later than scheduled. Include a discussion of any delay reflected by the CPM schedule.
  - b. a listing of the critical path only, sorted by early start, and a narrative addressing all critical path changes for the current update, the projected completion date, and the Contractor's plan of action to maintain the contract completion date.
  - c. a listing of all near-critical activities (activities having less than sixteen (16) working days total float) with a narrative discussion of the Contractor's plan of action to keep these activities from becoming critical.
  - d. a detailed listing and narrative of all logic changes, activity additions and deletions, duration modifications, and other scheduled alterations that were completed during the update.
  - e. each schedule update shall include CD(s) containing the CPM schedule files for that update.
  - f. the Contractor shall provide the District, upon the District's request, access to the scheduling software and hardware used to produce the original CPM schedule and monthly updates and an electronic copy of the schedule.
- 37.13 A copy of the most recent CPM construction schedule shall be posted in the Contractor's job office and copies of all out of date schedules shall be kept at the job office at all times for perusal by the District.
- 37.14 In addition to the CPM schedule update and reports submitted with each periodic payment request, one copy of CPM schedule updates and required report shall be submitted to the architect and the District. Such submittal shall be required within five (5) working days of the CPM schedule status date (data date).

37.15 Upon project closeout, the Contractor shall provide the District and the architect with one copy each of the completed as-built schedule and applicable reports.

37.16 Submittal Schedule: The Contractor shall also furnish before first application for payment, a separate schedule along with the construction schedule specified above showing the proposed dates for submittal of all shop drawings, product data and samples.

a. Submit two (2) copies of the submittal schedule to the architect.

37.17 RECOVERY SCHEDULES: Once a Contractor determines or the District or Architect notifies the Contractor that based on his/her/its observations of the work completed and the work in progress that the Contractor is twenty one (21) calendar days or more behind schedule, the Contractor has a duty to prepare a Recovery Schedule in accordance with the requirements set forth in Article 36 and submit the same to the District within seven (7) calendar days of receipt of notice that the Contractor is off schedule by twenty one (21) calendar days or more or, if no such notice is received by Contractor, within seven (7) calendar days of the date it becomes known to Contractor that Contractor is off schedule by twenty one (21) calendar days or more. Failure to timely provide District with recovery schedules shall constitute a material breach of the contract and District may declare the Contractor in default and terminate the contract.

38. PROTECTION OF WORK AND PROPERTY:

38.1 The Contractor shall continuously maintain adequate protection of all his/her work from damage and shall protect the District's property from injury or loss arising in connection with this Contract. Contractor shall make good any such damage, injury or loss, except such as may be directly due to errors in the Contract documents or caused by agents or employees of the District. Contractor shall adequately protect adjacent property as provided by law and the Contract documents.

38.2 Any plants which must be removed for proper execution of the work shall be removed without damage in a manner necessary for transplanting. The Contractor shall aid in this work and shall complete the transplanting and be responsible for watering and cultivation. The Contractor shall be responsible for damage to plants in a manner described in the foregoing paragraph.

39. QUALIFICATIONS FOR EMPLOYMENT:

39.1 No person under the age of 16 years of age and no person currently serving sentence in a penal or correctional institution shall be employed to perform any work under this Contract, unless, under the discretion of District, the safety of facility users is protected by one or more of the following methods:

a. The installation of a physical barrier at the worksite to limit contact with community users of District facilities.

b. Continual supervision and monitoring of all employees of the entity by an employee of the entity whom the Department of Justice has ascertained has not been convicted of a violent or serious felony.

c. Surveillance of employees of the entity by District personnel.

39.2 No person whose age or physical condition is such to make his/her employment dangerous to his/her health or safety or to the health or safety of others shall be employed to perform work under this Contract; provided that this sentence shall not operate against any physically handicapped person otherwise employable where such persons may be safely assigned to work which they can ably perform.

40. ROYALTIES AND PATENTS: The Contractor shall pay all royalties and license fees. He/she shall defend all suits or claims for infringement of any patent rights and shall save the District harmless from loss on account thereof, except that the District shall be responsible for all such loss when a particular process or the product of a particular manufacturer or manufacturers is specified, but if the Contractor has information that the process or articles specified is an infringement of a patent he/she shall be responsible for such loss unless he/she promptly gives notice of such infringement in writing to the District.
41. SANITARY FACILITIES: In accordance with applicable Cal-OSHA regulations, Contractor shall supply and maintain at his/her expense such toilets and other sanitary facilities as are necessary for use by workers employed at the job site. Such facilities shall be approved by District.
42. SCHEDULE OF VALUES: Within ten (10) days after the execution of the contract, the successful bidder will be required to provide District and Architect with a schedule of values that will break down the contract price into its component parts. The schedule of values shall allocate the entire Contract sum among the various portions of the work. The schedule of values should reflect the total cost of the work, including but not necessarily limited to, overhead, profit markups, start-up costs, completion costs, et cetera. The schedule of values should also separately itemize labor, by trade and hourly rate, for any trade performing work on the project in excess of one thousand dollars (\$1,000.00) and materials for any one activity in excess of one thousand dollars (\$1,000.00). If District and/or the Architect questions the accuracy of any item, the successful bidder shall supply the specific detailed breakdown of the item(s) cost as requested by District and/or Architect. Percentages of completion may be applied to the schedule of values by the District and/or Architect to compute progress payments. The schedule of values should be aligned with the CPM schedule. Within ten (10) calendar days of the approval of any change order, the schedule of values must be updated to incorporate the change orders as provided herein and submitted to the District and Architect. Within ten (10) calendar days of any change by Division of Industrial Relations to prevailing wage rates, the schedule of values shall be updated to reflect such changes and submitted to the District and Architect.
43. SEPARATE CONTRACTS: The District reserves the right to let other contracts in connection with the work including, but not limited to, work covered by a proposed change order that is not acceptable to the District. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his/her work with theirs.
44. SEVERABILITY: In the event any provision(s) of the contract documents is deemed to be invalid or unenforceable, that (those) provision(s) shall be severable from the remainder of the contract documents and shall not cause the invalidity or unenforceability of the remainder of the contract.
45. SUBCONTRACTORS:
- 45.1 The Contractor agrees that he/she is as fully responsible to the District for the acts and omissions of his/her subcontractors and of persons either directly or indirectly employed by them, as he/she is for the acts and omissions of persons directly employed by him. Nothing contained in the Contract documents shall create any contractual (including third party beneficiary) relation between any subcontractor and District.
- a. A subcontractor is a person or organization who has a direct contract with the Contractor to perform any of the work at the site. Subcontractor shall be listed in the Bid Proposal according to the instructions contained therein.
- b. The Contractor agrees to bind every subcontractor to the terms of this contract, including the General Conditions, Special Conditions, the Drawings and Specifications as far as applicable to the Contractor's work.

**The following provisions shall be included in the Contractor's contracts with his/her subcontractors, unless specifically noted to the contrary in a subcontract approved in writing as adequate by the District.**

The subcontractor agrees:

- i. To be bound to the Contractor by the terms of the Agreement, General Conditions, Special Conditions, Drawings and Specifications, and to assume toward him/her all the obligations and responsibilities that he/she, by those documents, assumes toward the District.
- ii. To submit to the Contractor, applications for payment, in such reasonable time as to enable the Contractor to apply for payment under terms of the General Conditions.
- iii. To make all claims for extras, for extensions of time and for damages to the Contractor in the manner provided in the contract documents for claims by the Contractor upon the District.

45.2 Contractor shall hold District harmless and defend and indemnify District from damages, if any, incurred as a result of Contractor's failure to include the required conditions in Contractor's subcontracts.

45.3. Contractor shall:

- a. Pay the subcontractor, upon the payment of certificates, the amount allowed to the Contractor on account of the subcontractor's work to the extent of the subcontractor's interest therein.
- b. Pay the subcontractor to such extent as may be provided by the Contract documents or the subcontract, if either of these provides for earlier or larger payments than the above.

45.4. Pursuant to the provisions of Sections 4100 et seq., of the Public Contracts Code of the State of California, the Contractor shall not without the consent of the District, either:

- a. Substitute any persons as subcontractors in place of the subcontractors designated in his/her original bid.
- b. Permit any subcontractor to be assigned or transferred or allow any work to be performed by anyone other than the original subcontractor listed in his/her bid.
- c. Other than in the performance of change orders, sublet or subcontract any portion of the work in excess of one-half of one percent of his/her bid for which his/her original bid did not designate a subcontractor.
- d. Contractor's violation of any of the provisions of sections 4100 et seq., of the Public Contracts Code, shall be deemed a material breach of this Contract, and the District may terminate the Contract, or may assess the Contractor a penalty in the amount of not more than ten percent (10%) of the amount of the subcontract involved, or may both cancel the Contract and assess the penalty.

46. SUBMITTALS, SHOP DRAWINGS, CUTS AND SAMPLES: Shop drawings, brochures, catalogue cuts and samples in quantities specified by Architect shall be submitted to the Architect for all items for which they are required by the technical specifications. The Contractor shall examine all submittals for accuracy and completeness, including those submittals provided by subcontractors at any tier, in order to verify their suitability for the work and compliance with the contract documents and shall sign and date each submittal. Specific submittals requirements are identified in the individual specification Sections.

46.1 Submittal Requirements:

- a. General: Conform to specified procedures in submission of all required submittals.



- b. Specified Products: Where submittals are identified in individual specification Sections with the statement "None required for specified product.", only the named manufacturer's, product and model numbers are exempt from submittal requirements.
- c. Approved Equals and Substitutions: Where submittals are identified in individual specification Sections with the statement "None required for specified product.", and Contractor is requesting an approved equal or substitution, all submittal requirements shall be in effect and will be required. Submittals shall identify all changes required in plan, detail and specification, and shall show or describe in detail, how proposed product will be incorporated, without altering the design or appearance of the Project in any way.
- d. Deferred Approvals: Items identified on the cover sheet of the Drawings that are not approved because the exact design or manufacturer are not known at the time of approval and which require submittals be made through the Architect for review and acceptance after the Contract is signed.

46.2 Submission Procedures:

- a. General: Schedule submissions a minimum three (3) weeks before required for use.
- b. Submissions:
  - i. General: After issuance of Notice to Proceed make submissions as follows:
  - ii. Deferred Approval Items: 21 calendar days.
  - iii. Early Start and/or Long Lead-Time Items: 30 calendar days.
  - iv. Color Selection Items: 30 calendar days.
  - v. Electrical, Mechanical and Equipment Items: 60 calendar days.
  - vi. All other items: 90 calendar days.

46.3 Cover Sheet:

- a. General: All submittals shall be accompanied by a Submittal Cover Sheet as provided by the Architect. Contractor shall follow the format as follows:
  - i. Contractor: Provide company name, mailing address, telephone number and name of the contact person responsible for work on this project.
  - ii. Sub-contractor: Provide company name, mailing address, telephone number and name of the contact person responsible for work on this project.
  - iii. Submittal Description:
 

General: Describe contents of submittal completely; identify if material is a resubmittal, and give previous submittal number.

Submittal Index: Provide index of all items included in submittal; properly identify with drawing numbers, etc.

- iv. Specification Section Number: Identify submitted work with Section number and name shown in the Project Manual. Provide separate submittals for each specification Section, as required.
- v. Submittal Number: Identify first submittal as number one (1); number re-submittals, if required, with succeeding numbers.
- b. Submittals Identification:
  - i. General: Provide the following on each submittal.
  - ii. Date: Submission date and revision dates.
  - iii. Project: Project title and number; names of Architect, Contractor, and Sub-contractor.
  - iv. Product or Material: Name of manufacturer; product name or model number; and supplier.
  - v. Contractor's stamp: Initialed or signed, certifying to review of submittal, verification of field requirements and compliance with contract documents.

46.4. Number of Copies Required:

- a. General: Submit following number of copies:
- b. Progress Schedule: Three (3) copies.
- c. Schedule of Values: Three (3) copies.
- d. Certifications: Three (3) copies.
- e. Shop Drawings: One (1) reproducible transparency and six (6) copies of each original drawing.
- f. Product Data/Material Lists: Seven (7) copies.
- g. Samples:
  - i. General: As identified in individual specification Section.
  - ii. Color/Pattern Section: One (1) set of manufacturer's complete range for initial selection; additional samples as requested of selected color/pattern for final color schedule.
- h. Substitutions: Seven (7) copies.
- i. Maintenance/Operating Manuals: Three (3) copies.
- j. Record Drawings: Reproducible transparencies and two (2) copies.
- k. Record Survey: Reproducible transparencies and two (2) copies.
- l. Contractor and Subcontractor Guarantees: Three (3) copies, all with original signatures.
- m. Products, materials and equipment – warranties: Three (3) copies, all with original signatures.

46.5. Submittal Review:

- a. General: Make submittals as required to cause no delay in the orderly progress of work, layout or fabrication under Contract, due allowance being made for checking by the Architect and for such corrections, resubmissions and rechecking as may be necessary. Do not commence any work requiring submittals until review by Architect has been completed.
- b. Review: Review of submittals will be general and only for general conformance with the Contract Documents. Review does not relieve Contractor from responsibility for coordinating work with other trades and compliance with requirements of Contract Documents for lengths, fit and other details, or from furnishing materials and work required by contract which may not be indicated on submittals when reviewed. Review does not authorize changes from Contract requirements. Efforts will be made by Architect to identify errors and omissions, but General Contractor is responsible for the accuracy and correctness of all submittals.
- c. Color Selections: Architect will make no selections until all submittals related to color have been received and materials reviewed.

47. PROJECT SUPERINTENDENT; PROJECT MANAGER; FOREMAN - SUBMISSION OF RESUME FOR APPROVAL TO ASSIGN TO PROJECT: Within five (5) days of receiving the Notice of Award, in addition to other contractually required submittals, Contractor shall also submit to District the name, address, work, home and pager telephone of the Contractor's project manager, superintendent and foreman who will be assigned by the Contractor to the Project, as well as a copy of the resume of the superintendent and foreman.
- 47.1. Designated Superintendent, Project Manager and Foreman - District Approval Required: Within five (5) calendar days of receiving the Notice of Award, Contractor shall submit to District the information identified in 47 above for District's review. Within ten (10) business days of receipt of such information, District shall notify Contractor as to whether the designated superintendent, project manager and foreman for the Project are acceptable to the District. District's approval shall not be unreasonably withheld. Contractor understands and agrees that the requirement to provide a Project Superintendent and a Project Manager expressly requires that Contractor employ two separate individuals and that contractor will not be permitted to staff this Project with just one employee wearing both the hat of Project Superintendent and Project Manager, unless expressly authorized by District, in writing.
- 47.2 If, at any time during the Project, the District notifies the Contractor that either the superintendent, project manager or foreman on the Project are not performing to the District's satisfaction, the Contractor shall immediately replace such individuals not later than seven (7) business days after receipt of such notification from District. Contractor shall provide the District with the information identified in Paragraph 47 above relating to any replacement superintendent, project manager or foreman prior to the individuals performing work on the Project. District shall expeditiously review the information to determine whether the proposed replacement superintendent and/or foreman are acceptable to the District, which approval shall not be unreasonably withheld.
- 47.3 If, at any time during the Project, Contractor notifies the District, in writing, stating the reasons therefore, that the Project superintendent or foreman have become unavailable to continue on the Project, Contractor may substitute other personnel of at least equal competence upon prior written approval by District, which approval shall not be unreasonably withheld. Contractor understands, however, that District will not approve any substitution if the basis of such request is to merely assign these employees to other Projects being constructed by Contractor before the completion of the Project that is the subject of this Contract. In proposing replacement personnel, Contractor must first provide the District with the information identified in Paragraph 47 above relating to any replacement superintendent, project manager or foreman prior to the individuals performing work on the Project. District shall expeditiously review the information to determine whether the proposed replacement superintendent and/or foreman are acceptable to the District.

- 47.4 Contractor shall keep a full-time project superintendent and foreman physically on each project site at all times that work is being performed on the project and shall keep during the progress of the project any necessary assistants to the Project Superintendent. Contractor understands and agrees that the Project Superintendent and/or foreman cannot be removed from any assigned project, without the express written consent of the District, which District agrees shall not be unreasonably withheld. Contractor understands, however, that District will not approve any substitution if the basis of such request is to merely assign these employees to other Projects being constructed by Contractor before the completion of the Project that is the subject of this Contract.
- 47.5 The superintendent shall represent the Contractor in his/her absence and all directions given to him/her shall be as binding as if given to the Contractor.
- 47.6 The Contractor shall give efficient supervision to the work, using his/her best skill and attention. Contractor shall carefully study and compare all drawings, specifications and other instructions and shall at once report to the Architect any error, inconsistency, or omission which he/she may discover but he/she shall not be held responsible for their existence or discovery, unless there is a situation in which interpretation is doubtful or the error is sufficiently apparent as to place a reasonably prudent contractor on notice that an error exists.
- 47.7 Any time Contractor's personnel or personnel of subcontractors or materialmen are on the project site; Contractor shall have a designated person on site to be responsible for the work.
- 47.8 Contractor understands that it is solely responsible for giving directions to its subcontractors and/or responding to any requests for information from its subcontractors. Contractor also understands that it shall be its sole responsibility to coordinate the work of all of its subcontractors. Neither District, Architect, inspector, or any officer, agent or employee thereof, shall provide direction to Contractor's subcontractors or respond to requests for information from subcontractors or coordinate subcontractor work.
- 47.9 The Superintendent shall submit daily reports to the District not less than weekly including but not limited to: subcontractors on site, accurate head count of workers and trades, and materials, and equipment delivered to the site, visitors, accidents, problems, et cetera. Note: If the Contractor's Superintendent performs labor on the project, the Contractor shall cause the Superintendent to be paid at the prevailing wage for the classification of work performed.
48. THIRD PARTY BENEFICIARIES: This contract is by and between the District and Contractor and/or their successors or assigns and no third party is intended expressly or by implication to be benefited by this Agreement.
49. UTILITIES:
- 49.1 Unless otherwise provided for under separate sections, Contractor shall arrange for and provide continuously until acceptance of work, all water, gas and electricity required. Contractor shall pay for such services unless specifically otherwise noted. Contractor must obtain prior written permission from District before hooking up to any District utilities that have not been directly sub metered by Contractor. In the event Contractor is permitted to utilize District utilities, Contractor shall be responsible for all costs attributable to Contractor's performance of work under this Contract and such charges will be back charged to Contractor on a pro-rata basis.
- 49.2 Contractor shall send proper notices, make necessary arrangements, perform other services required in care and maintenance of all public utilities and assume all responsibility concerning same. Notify proper utility if damage occurs. Observe all rules and regulations of the respective utilities in executing the work.

- 49.3 Contractor shall carefully check areas where operations of the Contract are to be performed and observe any existing overhead wires, equipment and other obstructions. Any such work shall be moved, replaced or protected, as required, whether or not shown or specified.
- 49.4 Locations of existing underground lines shown on Drawings are based on information from best available sources, but are to be regarded as approximate only. Deviations necessary to conform with actual locations and conditions shall be made without extra cost. Contractor shall exercise extreme care in locating and identifying said underground lines before starting work.
- 49.5 Contractor shall exercise all reasonable precautions to preserve and protect any existing underground improvements whether or not shown or specified. Active utilities shown on Drawings shall be adequately protected from damage and removed or relocated only as indicated or specified. Where active utilities are encountered but are not shown on Drawings, Architect shall be advised; work shall be adequately protected, supported, or relocated as directed by Architect; contract sum will be adjusted for such additional work.
- 49.6 Contractor shall repair, to the satisfaction of Architect and without additional cost to District, any damage to utility lines that occur as a result of operations of this work whether or not such utility lines are indicated.
50. WARRANTIES: Where the specifications require the Contractor to provide a written guarantee, it is the intention of this Contract that such guarantee shall run in favor of District, shall be made out to District, and shall be delivered in writing, in the form set forth in these contract documents, to the District prior to final payment.
- 50.1 Contractor's Guarantee During Construction: The District shall not, in any way or manner, be answerable or suffer loss, damage, expense or liability for any loss or damage that may happen to said building, work, or equipment or any part thereof, or in, on, or about the same during its construction and before acceptance. Contractor assumes the risk of loss from destruction of, or damage to the project and in the event the work is damaged or destroyed in whole or in part by fire, earthquake, flood, or other peril, the time for the completion of the contract will be extended, and Contractor shall rebuild at no expense to District. This
- obligation shall not replace Contractor's obligation to carry insurance as set forth in the contract documents.
- 50.2 Contractor's Guarantee of Quality: Contractor unqualifiedly guarantees the "first-class" quality of all workmanship and of all materials, apparatus, and equipment used or installed by him/her or by any subcontractor or supplier in the project which is the subject of this Contract unless a lesser quality is expressly authorized in the Drawings and Specifications, in which event Contractor unqualifiedly guarantees such lesser quality and that the work as performed by Contractor will conform with the Plans and Specifications or any written authorized deviations therefrom.
- 50.3 Guarantees: Besides guarantees required elsewhere, Contractor shall and does hereby guarantee all workmanship and material for a period of two (2) years from the date of acceptance of the work by the District (special or extended guarantees as noted shall be honored as specified under specific items) and shall repair or replace any or all material and workmanship (together with any other work which may be damaged in so doing) that is or becomes defective during the period of said guarantees without expense whatsoever to District. For purposes of this Contract the date of acceptance shall be the date of the resolution of the governing body of District accepting work excepting work which is incomplete upon date of said resolution, and then the date of acceptance shall be the date of final payment under this Contract. In the event the Contractor fails to comply with the requirements of any guarantee required by this Contract within seven (7) days after being notified in writing, District is authorized to proceed to have the defects repaired and made good at the expense of contractor who shall pay the costs and charges therefor immediately on demand. In the event the defective condition giving rise to repairs pursuant to this warranty endangers persons or property, or otherwise substantially interferes with

District's ability to conduct its business or provide services for which the District is responsible, District may immediately make repairs after reasonable attempts to notify Contractor and Contractor shall pay the costs and charges of said repairs immediately upon demand. Early occupancy by District or early use of a guaranteed item or system by District, Contractor, subcontractor or any other person or agency shall not modify the period of guarantee which shall commence as set forth above.

51. SUPPLEMENTAL GENERAL CONDITIONS

51.1 Ownership and Use of Drawings, Specifications, Other Documents: The drawings, specifications and other contract documents for the project are the property of the District and/or architect/engineer pursuant to contract requirements between the District and the architect/engineer. Neither the contract, nor any subcontractor, or material or equipment supplier shall own or claim a copy right in the drawings, specifications, and other documents prepared by the architect/engineer and/or the District.

51.2 Fingerprinting: On any project that is occupied at the time of construction, reconstruction or modernization or where workers are anticipated to come in contact with pupils, contractor shall comply with the applicable provisions of Education Code Section 45125.1 in a method as determined by the District. Pursuant to Education Code Section 45125.1, contractor shall either conduct criminal background checks of all employees of contractor assigned to the contract site, and shall certify that no employees who have been convicted of serious or violent felonies as specified in Education Code Section 45125.1, will have contact with pupils by utilizing the certification regarding background checks and the corresponding attachments found in instructions to bidders and contract documents, or shall ensure that, by erection of a physical barrier, or otherwise, that workers and students shall be separated by a physical barrier.

If it is determined that the contractor must provide certification of employees, as part of such certification contractor must provide the District with a list of all employees providing services pursuant to this agreement, and designate which sites such employees will be assigned.

In performing the services set forth in this agreement, contractor shall not utilize any employees who are not included on the list.

At owner's sole discretion, owner may make a finding, as authorized under Education Code Section 45125.1 that contractor's employees will have only "limited contact" with pupils. Contractor's failure to comply with this law shall be considered a material breach of this agreement.

In the case of new construction contracts where there are no students. If the project schedule provides for beneficial occupancy or portions of the project, or if the project should be delayed, then contractor, at no additional cost, shall meet the requirements of fingerprinting or providing a physical barrier as required by the District.

51.3 Noise, Drugs, Tobacco and Alcohol: Contractor shall take all steps necessary to ensure that employees of contractor, or any of its subcontractor's employees do not use, consume, or work under the influence of alcohol, tobacco or illegal drugs while on the project. Contractor shall further prevent any of its employees or subcontractor's employees from playing any recorded music devices, radios or wearing any radio headphone devices for entertainment while working on the project. Contractor shall prevent its employees, or subcontractor's employees from bringing any animal onto the project. Contractor shall become familiar with the District's written policies, available online or by request, and school site policies or rules, available upon request from the school site, regarding conduct of persons present on District facilities and school sites.

51.4 Noise Control: Contractor shall be responsible for the installation of noise reducing devices on construction equipment. Contractor shall comply with the requirements of the City and county of Colusa with regard to noise ordinances governing construction sites and activities. If school is in session at any point during the progress of the project and in the District's reasonable discretion, the

noise from such work disrupts the students or faculty or the normal operation of the school then at the District's request, the contractor shall schedule performance of all such work around normal school hours or make other arrangements so that the work does not cause disruption. In no event shall the contractor have the right to receive additional compensation or an extension to the contract time as a result of any such rescheduling. Noise control shall be implemented during site preparation and construction and any issue related to scheduling or rescheduling based on anticipated noise and school program issues must be scheduled in the project schedule as set forth in Article 37.

51.5 Administrative Site Resources: Contractor shall maintain at the site for the District, a current copy of the California Building Code, Titles 19, 20 and 24 of the California Code of Regulations, any other document required by the Division of State Architect, and one record copy of the drawings, specifications, addendum, change orders and other modifications marked currently to record changes in selections and make such documents available to the District and its architect. Contractor shall maintain an onsite computer with internet access so the contractor can review and post documents as require, including, but not limited to, filing and posting of Division of State Architect documents.

51.6 Division of Industrial Relations Registration: Contractor shall comply with all DIR registration requirements in accordance with Labor Code Section 1725.5 and 1771.1 and compliance with the requirement is a material obligation of the contractor and all of its subcontractors. Failure of the contractor and/or any of its subcontractors at any tier to be properly registered with the DIR at all times during the performance of the work is a material breach subjecting the contractor and/or subcontractors to termination.

51.7 Excavation Deeper Than 4 Feet: If this contract involves digging trenches or other excavation that extends deeper than 4 feet below the surface, then all of the following apply:

- A. The contractor shall promptly, and before the following conditions are disturbed, notify the District, in writing, of any (1) material that the contractor believes may be material that is hazardous waste as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a class 1, class 2 or class 3 disposal site in accordance with provisions of existing law; (2) subsurface or latent physical conditions at the site differing from those indicated; (3) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this contract.
- B. Upon receiving any such notice, the District shall promptly investigate the condition, and if it finds the conditions do materially differ, or do involve hazardous waste, and cause a decrease or increase in the contractors cost of, or the time required for, performance of any part of the work, shall issue a change order under the procedures set forth in this contract.
- C. In the event a dispute arises between the District and the contractor whether the conditions materially differ or involve hazardous waste, or cause a decrease or increase in the contractors cost of, or time required for performance of any part of the work, the contractor shall not be excused from any scheduled completion date, but shall proceed with all work under the contract. Contractor shall retain any and all rights provided either by contract or by law, which pertain to the resolution of disputes and protest between the parties.
- D. Pursuant to Labor Code Section 6705, if this project involves the excavation of any trench or trenches five (5) feet or more in depth the contractor shall, in advance of the excavation, submit to the District, or a registered civil or structural engineer employed by the District, or the District's

architect/engineer a detailed plan showing the design and shoring for protection from the hazard of caving ground during the excavation the trenches. If such plan varies from the Shoring System Standards established by the construction safety orders, the plans shall be prepared by a registered civil or structural engineer, but in no case shall such plan be less effective than that required by the construction safety orders. No excavation of trenches shall be commenced until the plan has been accepted by the District or its delegated representative. Contractor shall not commence any excavation work until it has secured all necessary permits including the required CAL OSHA excavation/shoring permit.

- 51.8 Notification of Main or Trunk Line Utility Facilities: If the contractor, while performing work under the contract discovers any existing main or trunk line utility facilities not identified by the District in the contract plans or specifications, contractor shall immediately notify the District in writing. The local public utility where they are the owners of the utility, shall have the sole discretion to repair or relocate the work, or permit the contractor to do such repairs or relocation at a reasonable price. The contractor shall be compensated for the cost of locating, repairing damage not due to failure of the contractor to exercise reasonable care, and removing or relocating such utility facilities not set forth in the plans and specifications with reasonable accuracy.



**Section 00 8000  
SPECIAL PROVISIONS**

**ARTICLE 1: SCOPE OF WORK**

**Section 1.01 Bid Package(s)**

- A. Bidder shall carefully review the total scope of responsibilities with respect to the Work of Bid Package #16-100, Colusa HS Ag Barn Site Utilities and shall provide for the total scope in its Proposal.

**Section 1.02 License Classification: A or B**

**Section 1.03 Scope of Work**

**Included:**

1. Furnish and install all labor, material and equipment for all Work shown and/or specified in accordance with the Contract Documents, except as excluded below.
2. This Scope of Work Section 1.03 also applies to all applicable awarded alternates.
3. Information provided under "Also Included" points out some items which may be considered less obvious or "unconventional", but which are included in the Scope of Work.
4. This Bid Package Description is intended to clarify scope to the Contractor, but is in no way intended to limit scope that is reasonable inferable as being required by the Work included in this description. Work required under a Bid Package may be shown or specified anywhere in the Contract Documents.

**Also Included:**

1. Trenching/compaction and backfill Work.
2. Concrete/asphalt patching Work.
3. All demolition and removal and/or replacement of Work associated with this Bid Package.
4. Coordination with other Contractors working on this campus.
5. Coordinate the Underground Service Alert (U.S.A.) one-call program prior to construction excavations. Note that the Contractor is responsible to maintain and/or protect the markings performed by U.S.A. during construction for reference.
6. Weather protection during the course of construction (See Section 00 7200, General Conditions).
7. Temporary barricades, signs, pedestrian protection, temporary facilities and traffic control Work.
8. Daily and final clean-up.
9. Qualified/certified technicians must perform the replacement and/or repair of all landscape, irrigation, asphalt/concrete surfaces and above or below grade utilities disturbed during construction, and the District must be given the opportunity to test and accept the Work prior to covering up.
10. Patching, repairing, painting and/or replacement of all finished surfaces disturbed during construction.
11. Coordinate testing and inspections required by the Contract Documents, Owner, and all Federal, State and local agencies.

**Excluded:**

1. Plan check fees.
2. Inspection fees.
3. Encroachment permit/fees.

**ARTICLE 2: ALTERNATES**

**Section 2.01 Alternates**

Alternate Bids may be accepted at the option of the District. Any combination of Base Bid, Alternates, and Unit Costs determined by the District will be basis for awarding a Contract.

## ARTICLE 3: SCHEDULE

### Section 3.01 Contract Time/Time for Completion

The time for completion of all Work is June 10, 2016.

Time for completion of milestones is as set forth in the attached Preliminary Construction Schedule. Any extensions of time for completion of milestones are governed by the same terms and restrictions as applicable to extensions of the Contract Time referenced in the General Conditions Section 00 7200.

### Section 3.02 Schedules

The attached Preliminary Construction Schedule indicates planned durations for significant activities during the construction period, including required milestone completion dates. Phasing and milestone completion dates have been prepared to accommodate the Work of this Bid Package and school educational demands. The activities shown assume 100% manpower levels. Mobilization, planning, coordinating layout, gradual manloading, etc. all must occur prior to the activities shown.

Certain phases of the work may be designated as a "Zero Float Phase" in the Preliminary Construction Schedule. Any Zero Float Phase shall have a fixed start and finish date that is not subject to change as a result of delays in other phases or in issuance of the Notice to Proceed for the Project.

The Contractor is required to submit a Contract Schedule for the activities within its scope of Work according to the requirements specified in General Conditions Section 00 7200, Article 37, Progress Schedule.

The District will occupy the Site during the entire period of construction for the conduct of normal operations. The Contractor shall cooperate with the District to minimize conflict, and to facilitate the District's operations. Construction areas will be made available in the order and time frames shown in the Preliminary Construction Schedule.

Schedule the Work to accommodate these requirements.

### Preliminary Construction Schedule

Schedule the Work to accommodate the following milestone requirements:

- ◆ Post Bid Document Phase Milestone (**Start Date, Not Later than 3/28/16**)
  - Notice of Intent to Award
  - Post-Bid Submittals
  - Project Submittals/Shop Drawings for zero float phase scope of work
  - Post Bid Document Phase Milestone (**Completion Date, Not Later than 4/8/16**)
- ◆ Zero Float Phase Milestone (**Start Date, approximately 4/11/16**)
  - Notice to Proceed
  - Submission of all remaining required submittals in accordance with 00700
  - Mobilization/initial layout
  - Site Work improvements
- ◆ Remaining Scope of Work Phase Milestone (**Start Date, Not Later than 8/4/03**)
  - AC Paving Patch
  - Punch list development and completion
  - Remaining Scope of Work Phase Milestone (**Completion Date, Not Later than 6/10/16**)

### Section 3.03 Liquidated Damages

In the event of failure on the part of the Contractor to complete each phase of the Work within the Milestone Completion Date, or the overall Project within the Contract Time, including any approved extensions thereof, the Contractor shall pay District, on a phase by phase basis, liquidated damages for each calendar day of delay until

final completion of the Phase or the Project. The liquidated damages for each Phase and for the Project are separate, and may be accumulated if completion of more than one Phase is delayed concurrently.

The amount of liquidated damages is indicated below (also refer to General Conditions Section 00700, Article 28):

**\$500.00 per calendar day.**

**SECTION 01 1100  
SUMMARY OF WORK**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. The furnishing of all labor, materials, equipment, services, and incidentals necessary for Work of the **Ag Barn Site Utilities Project**, at **Colusa High School** located at **901 Colus Avenue, Colusa, California 95932**, as set forth in the Construction Documents which include, but are not limited to, the Drawings, Addenda and Specifications.

1.02 RELATED REQUIREMENTS:

- 1. Section 01 5000: Construction Facilities and Temporary Controls.
- 2. Section 01 7123: Field Engineering.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION

3.01 USE OF PREMISES

- A. CONTRACTOR shall coordinate Work of all trades, Subcontractors, utility service providers, with OWNER and/or Separate Work Contract. CONTRACTOR shall sequence, coordinate, and perform the Work to impose minimum hardship on the operation and use of the existing facilities and/or Project site. CONTRACTOR shall install all necessary protection for existing improvements, Project site, property, and new Work against dust, dirt, weather, damage, vandalism, and maintain and relocate all protection to accommodate progression of the Work.
- B. CONTRACTOR shall confine entrance and exiting to the Project site and/or facilities to routes designated by the OAR.
- C. Within existing facilities, OWNER will remove portable equipment, furniture, and supplies from Work areas prior to the start of Work. CONTRACTOR shall cover and protect remaining items in areas of the Work.
- D. CONTRACTOR is advised school may be in session during performance of the Work. CONTRACTOR shall utilize all available means to prevent generation of unnecessary noise and maintain noise levels to a minimum. When required by the OAR, CONTRACTOR shall immediately discontinue noise-generating activities and/or provide alternative methods to minimize noise generation. CONTRACTOR shall install and maintain air compressors, tractors, cranes, hoists, vehicles, and other internal combustion engine equipment with mufflers, including unloading cycle of compressors. CONTRACTOR shall discontinue operation of equipment producing objectionable noise as required by the OAR.
- E. CONTRACTOR shall furnish, install, and maintain adequate supports, shoring, and bracing to preserve structural integrity and prevent collapse of existing improvements and/or Work modified and/or altered as part of the Work.
- F. CONTRACTOR shall secure building entrances, exits, and Work areas with locking devices as required by the OAR.
- G. CONTRACTOR assumes custody and control of OWNER property, both fixed and portable, remaining in existing facilities vacated during the Work.
- H. CONTRACTOR shall cover and protect surfaces of rooms and spaces in existing facilities turned over for the Work, including OWNER property remaining within as required to prevent soiling or damage from dust, dirt, water, and/or fumes. CONTRACTOR shall protect areas adjacent to the Work in a similar manner. Prior to OWNER occupancy, CONTRACTOR shall clean all surfaces including OWNER property.

- I. CONTRACTOR shall not use or allow anyone other than OWNER employees to use facility telephones and/or other equipment, except in an emergency. CONTRACTOR shall reimburse OWNER for telephone toll charges originating from the facility except those arising from emergencies or use by OWNER employees.
- J. CONTRACTOR shall protect all surfaces, coverings, materials, and finished Work from damage. Mobile equipment shall be provided with pneumatic tires.
- K. CONTRACTOR is advised OWNER will award Separate Work Contracts at this Project site.
- L. CONTRACTOR shall not permit the use of portable and/or fixed radio's or other types of sound producing devices including Walkman and similar devices.

3.02 PROPERTY INVENTORY

- A. Property, OWNER intends to remove; will be removed by OWNER before a room or space is vacated for the Work. Before performing Work in each room or space, OAR and CONTRACTOR shall prepare a detailed initial written inventory of OWNER property remaining within, including equipment and telephone instruments and the condition thereof. OAR and CONTRACTOR shall retain a signed copy of the inventory dated and signed by both parties. Prior to subsequent OWNER occupancy of each such room or space, OAR and CONTRACTOR shall perform a final inventory of OWNER property and all discrepancies between the initial inventory and final inventory shall be the responsibility of CONTRACTOR.

3.03 FURNITURE, FIXTURES AND EQUIPMENT (MATERIALS) OWNER FURNISHED CONTRACTOR INSTALLED (OFICI)

- A. Certain materials identified in the Contract Documents as OWNER Furnished CONTRACTOR Installed, OFCI, will be delivered to the Project site by the OWNER.
- B. If designated in the Contract Documents to be OWNER furnished CONTRACTOR installed, (OFICI), CONTRACTOR shall unload, store, uncrate, assemble, install, and connect OWNER supplied materials.

END OF SECTION

**SECTION 01 2113  
CASH ALLOWANCES**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. To provide adequate budget and bonding to cover scope of work not precisely determined by the Contract Documents prior to bidding, allow within the proposed Contract Sum the amounts described in the Proposal Form. All unused portions of the allowance will be deducted from the Contract through a Change Order.
- B. Related Work:
  - 1. Documents affecting work of this Section include, but are not limited to, Bidding and Contract Requirements, General Requirements and related Technical Requirements.
  - 2. Other provisions concerning Cash Allowances are stated in Specification Section 00210, Proposal Form.
  - 3. Other provisions concerning Cash Allowances also may be stated in other sections of the Project Manual.

**1.02 SPECIFIC CASH ALLOWANCES**

**BID PACKAGE # 16 - 100**

- A. Unforeseen Underground Utilities: Provide within the proposed contract sum in the amount of \$2,000 for unforeseen underground utilities. This allowance will be expended under a time and materials basis using current prevailing wage rates, as directed by the Architect and District Representative. All unused portions of the allowance will be deducted from the contract through a change order.

**PART 2 - PRODUCTS - Not Used**

**PART 3 - EXECUTION - Not Used**

**END OF SECTION**

**SECTION 01 3119  
PROJECT MEETINGS**

**PART 1 - GENERAL**

- 1.01 SECTION INCLUDES
- A. This Section specifies administrative and procedural requirements for Project meetings, including but not limited to, the following:
    - 1. Job start meeting.
    - 2. Pre-installation conferences.
    - 3. Progress meetings.
    - 4. Meetings as required by OAR.
- 1.02 RELATED REQUIREMENTS
- A. Section 01 3300: Submittal Procedures.

**PART 2 – PRODUCTS (Not used)**

**PART 3 - EXECUTION**

- 3.01 JOB START MEETING
- A. OAR will schedule a job start meeting before starting the Work, at a time and date determined by OAR. Meeting shall be held at the Project site or another location as determined by OAR. Meeting will be held in order to review responsibilities, procedures, and other administrative requirements contained within the Contract Documents.
  - B. Authorized representatives of OWNER, INSPECTOR, ARCHITECT, CONTRACTOR and other parties shall attend the meeting. All participants at the meeting shall be familiar with the Project and authorized to conclude matters relating to the Work.
  - C. Agenda items shall include significant items which could affect progress of the Work, including, but not limited to the following:
    - 1. Preliminary Construction Schedule.
    - 2. Critical work sequencing.
    - 3. Designation of responsible personnel.
    - 4. Identification of OAR.
    - 5. Procedures for processing field decisions.
    - 6. Request for Proposal.
    - 7. Request for Clarification.
    - 8. Construction Directive and Change Order.
    - 9. Procedures for processing Applications for Payment.
    - 10. Prevailing wages.
    - 11. Submittal and review of Shop Drawings, Product Data, material lists, and Samples.
    - 12. Preparation of project record documents.
    - 13. Use of the Project site and/or premises.
    - 14. Parking availability.

15. Office, work, and storage areas.
  16. Equipment deliveries and priorities.
  17. Safety procedures.
  18. First Aid.
  19. Security.
  20. Housekeeping.
  21. Working hours.
  22. Contract Compliance Officer.
  23. Insurance Services including OCIP.
  24. Environmental Health and Safety.
  25. Substantial Completion, Administrative Closeout and Contract Completion requirements and procedures.
  26. Procedures for Mandatory Dispute and Claim Resolution.
  27. Storm Water Pollution Prevention Plan (SWPPP).
  28. CEQA Compliance.
- D. OAR shall prepare and issue meeting minutes to attendees and interested parties no later than five calendar days after the meeting date.

### 3.02 PRE-INSTALLATION CONFERENCES

- A. CONTRACTOR shall coordinate and conduct pre-installation conferences at the Project site as required by related Sections of the Contract Documents.
- B. CONTRACTOR, manufacturers, and fabricators involved in or affected by the installation and its coordination or integration with other pre-ceding and/or subsequent installations of Work shall attend the meeting. CONTRACTOR shall advise OAR, INSPECTOR, and ARCHITECT of scheduled meeting dates in order to secure their attendance.
  1. CONTRACTOR shall review the progress of construction activities and preparations for the particular activity under consideration at each pre-installation conference, including requirements for the following:
    - a. Contract Documents.
    - b. Options.
    - c. Related Construction Directives and Change Orders.
    - d. Purchases.
    - e. Deliveries.
    - f. Shop Drawings, Product Data, and quality-control samples.
    - g. Review of mockups.
    - h. Possible conflicts.
    - i. Compatibility problems.
    - j. Time schedules.
    - k. Weather limitations.
    - l. Manufacturer's recommendations.
    - m. Warranty requirements.
    - n. Compatibility of materials.



- o. Acceptability of substrates.
  - p. Temporary facilities.
  - q. Space and access limitations.
  - r. Governing regulations.
  - s. Safety.
  - t. Inspecting and testing requirements.
  - u. Required performance results.
  - v. Recording requirements.
  - w. Protection.
2. CONTRACTOR shall record significant discussions and directives received from each conference. CONTRACTOR shall, within three (3) calendar days after the meeting date, distribute the minutes of the meeting to all concerned parties, including but not limited to, OAR, INSPECTOR, and ARCHITECT.

### 3.03 PROGRESS MEETINGS

- A. Progress meetings will be held at the Project site at regular intervals, typically weekly, as determined by the OAR.
- B. In addition to representatives of CONTRACTOR, OWNER, and ARCHITECT, each Subcontractor, supplier, or other entity concerned with current progress or involved in planning, coordination, or performance of the Work shall, if requested by OAR, be represented at these meetings. All participants at the conference shall be familiar with the Project and authorized to conclude all matters relating to the Work.
- C. Failure of CONTRACTOR to be so represented at any progress meeting which is held at a mutually agreed time or for which a written notice is given, shall not relieve CONTRACTOR from abiding by any and all OAR determinations or directives issued at such meeting.
- D. OAR will review and correct or approve minutes of the previous progress meeting and will review other significant items affecting progress. Topics for discussion as appropriate to the status of the Project include but are not limited to:
  - 1. Interface requirements.
  - 2. Construction Schedule.
  - 3. Sequence and coordination.
  - 4. Status of submittals / RFCs.
  - 5. Deliveries.
  - 6. Off-site fabrication.
  - 7. Access.
  - 8. Site utilization.
  - 9. Temporary Construction Facilities and Controls.
  - 10. Hours of work.
  - 11. Hazards and risks.
  - 12. Housekeeping.
  - 13. Quality of materials, fabrication, and execution.
  - 14. Unforeseen conditions.
  - 15. Testing and Inspection.

16. Defective Work.
  17. Construction Directive.
  18. Request for Proposal.
  19. Change Order Proposals and Change Orders.
  20. Documentation of information for payment requests.
  21. Application for Payment.
  22. Other items as required or as brought forth.
  23. Initial Notice of Start of Issue, Event, Condition, Circumstance, or Cause of Perceived Delay, Disruption, Interference, Hindrance, Acceleration. (Article 12.2.1 of the General Conditions).
  24. Final Notice of End of Issue, Event, Condition, Circumstance, or Cause of Perceived Delay, Disruption, Interference, Hindrance, Acceleration (Article 12.2.2 of the General Conditions).
  25. Storm Water Pollution Prevention.
  26. CEQA Compliance.
- E. No later than three (3) calendar days after each progress meeting, OAR will prepare and distribute minutes of the meeting to each present and absent party. Include a brief summary, in narrative form, of progress, decisions, directives, actions taken, and all other issues since the previous meeting and report.
1. Schedule Updating: CONTRACTOR shall revise the Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized, and issue the revised schedule at the next scheduled progress meeting.
- 3.04 ADDITIONAL MEETINGS
- A. OAR, upon giving notice to the intended parties and without further obligation, may require additional meetings to discuss Work and/or Project related activities.
- 3.05 OWNER'S RIGHT TO RECORD
- A. CONTRACTOR agrees on behalf of itself and all its subcontractors that the OWNER may audiotape or videotape any meetings, training and any work at any time during the Project

END OF SECTION

**SECTION 01 3300  
SUBMITTAL PROCEDURES**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Administrative and procedural requirements for submittals required for the Work, including but not limited to; Shop Drawings, Product Data, Samples, material lists, and quality control items.
- B. Throughout the Contract Documents, the minimum acceptable quality of materials, fabrication, and execution have been defined by the name and catalog number of a manufacturer and by reference of recognized industry standards.
- C. To ensure that specified products are furnished and installed in accordance with the design intent, procedures have been established for submittal of design data and for its review by ARCHITECT, OAR and others.

**1.02 RELATED REQUIREMENTS**

**A. Section 01 1216: Phasing of the Work.**

- A. Section 01 5000: Construction Facilities and Temporary Controls.
- B. Section 01 7123: Field Engineering.
- C. Section 01 7329: Cutting and Patching.

**PART 2 – PRODUCTS (Not used)**

**PART 3 - EXECUTION**

**3.01 PROCEDURES**

- A. CONTRACTOR is required to review and approve every submittal and shop drawing prior to transmittal and delivery to ARCHITECT. Should CONTRACTOR determine a submittal contains errors, or does not meet the requirements of the contract, CONTRACTOR shall immediately return the submittals and shop drawings to the producer and expedite the corrections prior to transmitting the submittal to ARCHITECT. Submittals shall not be used by CONTRACTOR to request clarifications or submit questions. CONTRACTOR will affix stamp to each submittal certifying CONTRACTOR has performed, at minimum, the following:
  - 1. Verified the submittal is complete in all respects and follows the requirements of the Contract Documents without variance.
  - 2. Confirmed that no substitutions have been included. If substitutions are included, CONTRACTOR shall eliminate them from the submittal and process them in accordance with Section 00 72000 General Conditions Article 6.14.
  - 3. Identified any variances from the requirements of the Contract Documents and confirmed that the identified variance meets, but does not exceed the allowable limitations or tolerances as defined in these specifications.
  - 4. Verified that all submitted materials, dimensions and tolerances are compatible with existing or planned conditions of the Work in order to erect, fabricate, or install the submitted assembly in conformance with the requirements of the Contract Documents.
  - 5. Coordinated and verified that the dimension's match CONTRACTOR measured field or installation conditions.
  - 6. Coordinated and verified that the products of separate manufacturers required within any field produced assembly are compatible in all respects for such assembly.
  - 7. Packaged together all related submittals or shop drawings where such is necessary for a comprehensive ARCHITECT review.

- B. CONTRACTOR shall package each submittal appropriately for transmittal and handling. Transmittal format shall be as required by OWNER. CONTRACTOR shall transmit and deliver six sets of each submittal or re-submittal to ARCHITECT, two of which shall be returned to CONTRACTOR. Some specifications may require additional copies be provided. CONTRACTOR shall provide the OWNER additional copies as specified or as requested by OAR. ARCHITECT will not accept submittals received from sources other than from CONTRACTOR.
- C. After ARCHITECT'S review, ARCHITECT will transmit submittals to OAR and OAR shall further distribute to CONTRACTOR, INSPECTOR and others as required. Work shall not commence, unless otherwise approved by OAR, until approved submittals are transmitted to CONTRACTOR.
- D. CONTRACTOR shall clearly identify any deviations from the Contract Documents on each submittal. Any deviation not so noted even though stamped reviewed is not acceptable.
- E. CONTRACTOR shall coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities requiring sequential activity.

F. Timing of Submittals:

- 1. In accordance with General Conditions, CONTRACTOR shall submit to ARCHITECT, with copy of transmittal to the OAR, those Shop Drawings, Product Data, diagrams, materials list, Samples and other submittals required by the Contract Documents.
- 2. The scheduling of submittals shall be sequenced to support the progress of the Work, and shall be:
  - a. Submitted sufficiently in advance of construction, fabrication or installation in order to allow time for transmittal, review, modification, correction, (and resubmission and re-review when required.)
  - b. Phased with adequate time between submittals in order to allow for proper review by the ARCHITECT without negative impact to the Milestones Schedule.
- 3. CONTRACTOR shall coordinate submittal of related items and ARCHITECT reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received by ARCHITECT.
- 4. CONTRACTOR shall revise, update and submit submittal schedule to ARCHITECT and OAR on the first of each month, or as required by OAR.
- 5. CONTRACTOR shall allow in the Construction Schedule, at least sixteen days for ARCHITECT review following ARCHITECT receipt of submittal. For mechanical, plumbing, electrical, low voltage, fire sprinklers, door and hardware, and other submittals requiring joint review with OAR, CONTRACTOR shall allow a minimum of eighteen days following ARCHITECT receipt of submittal. Deferred approval items shall be allowed additional time for DSA review.
- 6. No adjustments to the Contract Time or Milestones will be authorized because of a failure to transmit submittals to ARCHITECT sufficiently in advance of the Work to permit review and processing or where CONTRACTOR fails to provide ARCHITECT submittals on related items.
- 7. In case of product substitution, Shop Drawing preparation shall not commence until such time as OWNER accepts or rejects the proposed substitution in accordance with the procedures described in the General Conditions.
- G. If required, resubmit submittals in a timely manner. Resubmit as specified for initial submittal but identify as such. Review times for re-submitted items shall be as per the time frames for initial submittal review.
- H. Shop Drawing preparation shall not commence until such time as CONTRACTOR receives Product Data acceptance.
- I. ARCHITECT will stamp each submittal with a uniform, action stamp. ARCHITECT will mark the stamp appropriately to indicate the action taken, as follows:

1. Final Unrestricted Release: When ARCHITECT marks a submittal "Reviewed" the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.
2. Final-But-Restricted Release: When ARCHITECT, or authorized agent, marks a submittal "Reviewed as Noted," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.
3. Returned for Re-submittal: When ARCHITECT, or authorized agent, marks a submittal "Rejected, Revise and Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat as necessary to obtain different action mark. In case of multiple submittals covering same items of Work, CONTRACTOR is responsible for any time delays, schedule disruptions, out of sequence Work, or additional costs due to multiple submissions of the same submittal item. Do not use, or allow others to use, submittals marked "Rejected, Revise and Resubmit" at the Project site or elsewhere where Work is in progress.
4. Other Action: Where a submittal is for information or record purposes or special processing or other activity, ARCHITECT, or authorized agent, will return the submittal marked "Action Not Required".

### 3.02 SHOP DRAWINGS

- A. Shop Drawings are original drawings prepared by CONTRACTOR, Sub-contractor, supplier, or distributor illustrating some portion of Work by showing fabrication, layout, setting, or erection and shall not be based on reproduced Contract Documents or copied standard information.
- B. Produce Shop Drawings to an accurate scale that is large enough to indicate all pertinent features and methods. Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 24 by 36 inches.
- C. Shop Drawings shall include fabrication and installation drawings, setting diagrams, schedules, patterns, templates, and similar drawings. Include the following information:
  1. Dimensions.
  2. Identification of products and materials included by sheet and detail number.
  3. Compliance with specified standards.
  4. Notation of coordination requirements.
  5. Notation of dimensions established by field measurement.
- D. Provide a space of approximately 4 by 5 inches on the label or beside the title block on Shop Drawings to record CONTRACTOR and ARCHITECT review, and the action taken. Include the following information on the label for processing and recording action taken:
  1. Project name.
  2. Date.
  3. Name and address of ARCHITECT.
  4. Name and address of CONTRACTOR.
  5. Name and address of Subcontractor.
  6. Name and address of supplier.

7. Name and address of manufacturer.
8. Name and title of appropriate Specification section.
9. Drawing number and detail references, as appropriate.

E. Unless otherwise agreed to or indicated in individual Specification sections, submit a sufficient number of sets to allow for adequate distribution to CONTRACTOR, Sub-Contractor, supplier, manufacturer and fabricators plus four (4) sets (two sets to be retained by ARCHITECT, one set to the INSPECTOR and one set to OAR).

### 3.03 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of Work or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, wiring diagrams, schedules, illustrations, or performance curves.
  1. Mark each copy to show or delineate pertinent materials, products, models, applicable choices, or options. Where Product Data includes information on several products that are not required, clearly mark copies to indicate the applicable information. Include the following information:
    - a. Manufacturer's printed recommendations.
    - b. Compliance with trade association standards.
    - c. Compliance with recognized testing agency standards.
    - d. Application of testing agency labels and seals.
    - e. Notation of dimensions verified by field measurement.
    - f. Notation of coordination requirements.
    - g. Notation of dimensions and required clearances.
    - h. Indicate performance characteristics and capacities.
    - i. Indicate wiring diagrams and controls.
  2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed by CONTRACTOR.

C. Required Copies and Distribution: Same as denoted in Article 3.02.E.

### 3.04 SAMPLES

A. Procedure:

1. Submit Samples of sufficient size, quantity, cured and finished and physically identical to the proposed product or material. Samples include partial or full sections or range of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches denoting color, texture, and/or pattern.
  - a. Mount or display Samples in the manner to facilitate review of qualities indicated. Include the following:
    - 1) Specification section number and reference.
    - 2) Generic description of the Sample.
    - 3) Sampling source.

- 4) Product name or name of manufacturer.
  - 5) Compliance with recognized standards.
  - 6) Availability and delivery time.
2. Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
    - a. Where variations in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least three (3) multiple units that show the approximate limits of the variations.
    - b. Refer to other Specification sections for requirements for Samples that illustrate materials, fabrication techniques, assembly details, connections, operation, and similar construction characteristics.
    - c. Refer to other sections for Samples to be returned to CONTRACTOR for incorporation into the Work. Such Samples must be undamaged at time of installation. On the transmittal indicate special requests regarding disposition of Sample submittals.
    - d. Samples not incorporated into the Work, or otherwise not designated as Owner property, remain the property of CONTRACTOR and shall be removed from the Project site prior to Substantial Completion.
  3. Color and Pattern: Whenever a choice of color or pattern is available in a specified product, submit accurate color chips and pattern charts to OAR for review and selection.
  4. Number Required: Submit six, minimum, of each. Two will be returned to CONTRACTOR.
- B. When specified, erect field Samples and mock-ups at the Project site to illustrate products, materials, fabrications, or execution and to establish standards by which completed Work shall be judged.
    - C. Maintain sets of Samples, as returned, at the Project site, for quality comparisons throughout the course of the Work. Sample sets may be used to obtain final acceptance of the Work associated with each set.

### 3.05 QUALITY CONTROL SUBMITTALS

- A. Submit quality control submittals, including design data, certifications, manufacturer's field reports, and other quality control submittals as required under other sections of the Contract Documents.
- B. When other sections of the Contract Documents require manufacturer's certification of a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.
- C. Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the represented company.
- D. Requirements for submittal of inspection and test reports are specified in other sections of the Contract Documents.

END OF SECTION





**SECTION 01 3516  
ALTERATION PROJECT PROCEDURES**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Products and installation for patching and extending Work.
- B. Transition and adjustments.
- C. Repair of damaged surfaces, finishes, and cleaning.
- D. Salvage materials.

**1.02 RELATED SECTIONS**

- A. Section 01 7329 - Cutting and Patching.

**1.03 ALTERATIONS, CUTTING AND PROTECTION**

- A. Assign the work of moving, removal, cutting and patching, to trades qualified to perform the work in manner to cause least damage to each type of work, and provide means of returning surfaces to appearance of new work.
- B. Perform cutting and removal work to remove minimum necessary, and in a manner to avoid damage to adjacent work.
  - 1. Cut finish surfaces such as concrete, masonry, drywall, plaster or metals, by methods to terminate surfaces in a straight line at a natural point of division, or where indicated.
- C. Protect existing finishes, equipment, and adjacent work, which are scheduled to remain, from damage.
  - 1. Protect existing and new' work from extremes of temperature.
    - a. Maintain existing Interior work above 60 degrees F
    - b. Provide heat and humidity control as needed to prevent damage to remaining existing work and to new work.
- D. Provide temporary enclosures to separate work areas from existing building and from areas occupied by the District.

**PART 2 - PRODUCTS**

**2.01 PRODUCTS FOR PATCHING AND EXTENDING WORK**

- A. New Materials. As specified in product Sections; match new materials to existing work.
  - 1. Provide same products or types of construction as that in existing structure, as needed to patch, extend or match existing work.
  - 2. Presence of a product, finish, or type of construction, requires that patching, extending or matching shall be performed consistent to, or better than, existing standards of quality.
- C. Type and Quality of Existing Products: Determine by inspection and testing existing products where necessary, referring to existing Work as a standard.

## PART 3 - EXECUTION

### 3.01 EXAMINATION

- A. Verify that demolition is complete, and areas are ready for installation of new Work.
- B. Beginning of restoration Work means acceptance of existing conditions.

### 3.02 PREPARATION

- A. Cut, move, or remove items as necessary for access to alterations and/or renovation Work. Replace and restore at completion. The full extent of cutting and patching is not shown or specified. The Contractor shall perform all cutting and patching as required.
- B. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.
- C. Remove debris and abandoned items from area and from concealed spaces.
- D. Prepare surface and remove surface finishes to provide for proper installation of new work and finishes.

### 3.03 INSTALLATION

- A. Coordinate work of alterations and renovations to expedite completion and to accommodate District occupancy. Patch and extend existing work using skilled mechanics that are capable of matching existing quality of workmanship. Quality of patched or extended work shall be not less than that Specified for new work.
- B. Room Finishes. Complete in all respects consistent with the Contract Documents.
- C. Remove, cut, and patch Work in a manner to minimize damage and to provide a means of restoring Products and finishes to specified condition.
- D. Install Products as specified in Individual Sections.

### 3.04 TRANSITIONS

- A. Where new Work abuts or aligns with existing, perform a smooth and even transition.
- B. Patch Work to match existing adjacent Work in texture and appearance, without breaks, steps or bulkheads.
- C. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.

### 3.05 ADJUSTMENTS

- A. Where change of plane of 1/8 inch or more occurs, submit recommendation for providing a smooth transition.
- B. Where extreme change of plane of two inches or more occurs, request Instructions from Architect as to method of making transition.
- C. Trim existing doors as necessary to clear new threshold Installation. Refinish trim as required.
- D. Fit work at penetrations of surfaces as shown on drawings.

### 3.06 SALVAGED MATERIALS

- A. Salvaged Materials from existing facilities, which are specified in the Special Provisions, identified in bid doc's or tagged in the field are to be salvaged and shall remain the property of the District. The Contractor shall include the removal, disassembly, preparation, marking, bundling, packaging, tagging, hauling, and stockpiling of salvaged materials or facilities to the location specified in the Special Provisions, or as directed by the District Representative. Materials include, but are not limited to, parts, articles, and equipment of assembled facilities. Salvaging does not include the preparation of existing material that is to be reused in the work.
- B. When only specific materials from the facility are designated to be salvaged, the remaining materials from that facility shall be removed and disposed of as provided for elsewhere in the Contract Documents. Materials to be salvaged shall not be removed until their use in the existing facility is no longer required, as determined by the District Representative.
- C. When practicable, salvaged materials shall be hauled directly to the location specified in the Special Provisions and stockpiled; however, salvaged materials may be temporarily stored at a location selected by the Contractor and approved by the District Representative and later hauled to and stockpiled at their final location. Materials which are lost before stockpiling at their final location shall either be replaced by the Contractor, at the Contractor's expense, or, at the discretion of the District Representative, the estimated cost of replacement may be deducted from any moneys due or to become due to the Contractor.
- D. Materials designated to be salvaged that are damaged, as determined by the District Representative, shall be segregated from undamaged material. After review of the damaged materials by the District Representative, all damaged materials that are rejected by the Districts Representative shall become the property of the Contractor and shall be disposed of as provided elsewhere in the Contract Documents.
- E. Materials to be salvaged that are damaged as a result of the Contractor's operations shall be repaired by the Contractor, at the Contractor's expense, to the satisfaction of the District Representative. Materials that are damaged beyond repair as a result of the Contractor's operations shall be disposed of as provided elsewhere in the Contract Documents and replaced at the Contractor's expense; or, at the discretion of the District Representative, the estimated cost of replacement may be deducted from any moneys due or to become due to the Contractor.
- F. Replacements for lost or damaged materials shall be of the same kind and of the same or better quality and condition as the lost or damaged materials were prior to their removal. Replacement materials should also be of the same size, color, weight etc. of the original materials. Matching or exceeding quality and condition alone may not permit the reuse of material.

### 3.07 REPAIR OF DAMAGED SURFACES

- A. Patch or replace portions of existing surfaces, which are damaged, lifted, discolored, or showing other imperfections.
- B. Repair substrate prior to patching finish.

### 3.08 FINISHES

- A. Finish surfaces as specified in Individual Product Sections.
- B. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest Intersections.
- D. Unless otherwise specified or shown, sub surfaces shall be prepared as recommended by finish material manufacturers for project conditions for the proper application of new finishes.

### 3.09 CLEANING

- A. Clean adjacent Owner occupied areas of work soiled by work of this contract (See General Conditions Section 00700, Article 19).

END OF SECTION

**SECTION 01 4300  
QUALITY ASSURANCES**

**PART 1 – GENERAL**

**1.01 SECTION INCLUDES**

- A. Quality assurance and control of installation.
- B. References.
- C. Field samples.
- D. Mock-up.
- E. Inspection and testing laboratory services.
- F. Manufacturers' field services and reports.

**1.02 RELATED SECTIONS**

- A. General Construction Terms and Conditions
- B. Technical Specifications

**1.03 QUALITY ASSURANCE/CONTROL OF INSTALLATION**

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with the Construction Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.
- G. Entity's Line of Authority: Entity shall provide one person who shall be both knowledgeable and responsible for all work to be performed on this project at all times during normal work hours. In Entity's absence, Entity's appointed representative shall be responsible for all directions given him and said directions shall be binding as if given to the Entity. Entity's representative shall be responsible to coordinate all work to be performed.
- H. Shop and fieldwork shall be performed by mechanics skilled and experienced in the fabrication and installation of the work involved. All work on this project shall be done in accordance with the best practices of the various trades involved and in accordance with the drawings, approved shop drawings and these specifications.
- I. All work shall be erected and installed plumb, level, square and true and in proper alignment and relationship to the work of other trades. All finished work shall be free from defects. The Architect reserves the right to reject any materials and workmanship which are not considered to be up to the highest standards of the various trades involved. Such inferior material or workmanship shall be replaced by the Entity at no additional cost to the District and without a time extension.
- J. All work shall be installed by a knowledgeable contractor and defined "certified to install" by the specified materials manufacturers. The specifications and recommendations of the manufacturer whose materials are used shall be strictly adhered to during the application or installation of materials.
- K. Any additional work beyond that specified or illustrated, or any modification thereto, that is necessary for

the furnishing of guarantee shall be provided by the Entity without additional cost to the District.

#### 1.04 REFERENCES

- A. Conform to reference standards by date of issue current on date of the Construction Documents.
- B. Should specified reference standards conflict with Construction Documents, request clarification from Architect before proceeding.
- C. The contractual relationship of the parties to the Contract shall not be altered from the Construction Documents by mention or inference otherwise in any reference document.
- D. The Entity shall be responsible for being current and knowledgeable of all building codes involved for all trades under his direction.
- E. Provide all work and materials in full accordance with the California Building Standards Code (CBC), the State Fire Marshal, Safety Orders of the Division of Industrial Safety, the National Electric Code, the Uniform Building Code, Uniform Mechanical Code, Uniform Plumbing Code, and any other applicable laws or regulations. Nothing in these plans or specifications is to be construed to permit work not conforming to these Codes.
- F. Furnish without extra charge any additional material and labor required to comply with these Rules and Regulations.

#### 1.05 FIELD SAMPLES

- A. Install field samples at the site as required by individual specifications Sections for review.
- B. Acceptable samples represent a quality level for the Work.
- C. Where field sample is specified in Individual Sections to be removed, clear area after field sample has been accepted by Architect.

#### 1.06 MOCK-UP

- A. Assemble and erect specified items, with specified attachment and anchorage devices, flashings, seals, and finishes.
- B. Where mock-up is specified in Individual Sections to be removed, clear area after mock-up has been accepted by Architect.

#### 1.07 INSPECTION AND TESTING LABORATORY SERVICES

- A. District will appoint, employ, and pay for services of an independent firm approved by the Structural Engineer, Architect, and DSA to perform inspection and testing.
- B. The Independent firm will perform inspections, tests, and other services specified in Individual specification Sections and as required by the Architect.
- C. Project Inspector shall be employed by District and approved by Architect, Structural Engineer, and DSA.
- D. Reports will be submitted by the independent firm to the Architect, in duplicate, indicating observations and results of tests and indicating compliance or noncompliance with the Construction Documents.
- E. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage and assistance as requested.
  - 1. Notify Architect and independent firm twenty-four (24) hours prior to expected time for operations requiring services.
  - 2. Make arrangements with independent firm and pay for additional samples and tests required for Contractors use.
- F. The special inspector shall perform inspection of all work to determine conformance with these Standards.
  - 1. Request for inspection must be made to the office of the special inspector a minimum of forty-

eight (48) hours in advance of the time the inspection is desired.

2. Underground work shall not be backfilled or covered until an inspection by the special inspector or its representative has been completed and the work approved. Any work that is covered without inspection shall be uncovered at the Entity's expense so an inspection can be made.
  3. The Engineer shall have access to the work at all times and shall be furnished every reasonable facility for ascertaining that the work done, materials used and workmanship performed are in accordance with the requirements of these Standards.
  4. Inspection of the work shall not relieve the Entity of any of its obligations to satisfactorily perform the work.
- G. Re-testing required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the Architect. Payment for re-testing will be charged to the Entity by deducting inspection or testing charges from the Total Base Rent.

#### 1.08 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. Submit qualifications of observer to Architect thirty (30) days in advance of required observations.
- B. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance of equipment as applicable, and to initiate instructions when necessary.
- C. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- D. Submit report in duplicate within thirty (30) days of observation to Architect for review.

PART 2 – PRODUCTS – Not Used

PART 3 – EXECUTION – Not Used

END OF SECTION

**SECTION 01 5000  
TEMPORARY FACILITIES AND CONTROLS**

**PART 1 – GENERAL**

**1.01 SECTION INCLUDES**

- A. Temporary water, power, light, and heat.
- B. Field office and associated telephone and utilities.
- C. Temporary weather protection.
- D. Parking and storage areas.
- E. Site fencing and security.
- F. Sanitary facilities.
- G. Dewatering.
- H. Storm Water Run-Off Plan Compliance
- I. Final and course of construction cleanup and removal of debris.

**1.02 RELATED SECTIONS**

- A. General Construction Terms and Conditions
- B. Technical Specifications

**1.03 TEMPORARY UTILITIES**

- A. Charges for the use of utility services other than those associated with individual field offices or planned electrical service interruptions will be paid for by the District. Entity shall provide temporary heating, or ventilating, or cooling when permanent services are interrupted due to performance of the Work. Any planned interruption of permanent services, facilities, or operations must be coordinated with the District's Representative.
- B. Temporary Power: Existing school electric outlets may be utilized. Any additional power required shall be provided and paid for by the Entity.
- C. Temporary Lighting: Entity shall provide, maintain, and remove temporary lighting necessary to complete the Work.
- D. Temporary Heat: Entity shall provide, maintain, and remove temporary heat necessary to complete the Work.
- E. Temporary Cooling: Entity shall provide, maintain, and remove temporary cooling necessary to complete the Work.
- F. Temporary Water: Entity shall provide sufficient hose to carry water to every required part of construction and allow use of water facilities to subcontractors engaged in the Work. Entity is also responsible for the removal of the temporary water. Existing school water outlets may be utilized. Any additional water required shall be provided by the Entity.
- G. Temporary Telephone: If available, the District will provide Entity use of its telephone system.
- H. Temporary Fire Protection: Entity shall provide and maintain fire extinguishers and first aid kits in accordance with OSHA requirements to be used in the event of an emergency.
- I. Temporary Weather Protection: Entity shall provide and maintain protection measures to ensure that damage(s) will not occur to District property during course of construction.
- J. Temporary Dewatering: Entity shall provide and maintain a dewatering system as required to perform the Work. This temporary dewatering system may, and should, be reviewed by the Architect and/or District's Representative.



#### 1.04 FIELD OFFICE/STORAGE CONTAINERS

- A. The Entity shall provide a temporary field office(s) of sufficient size to accommodate its own personnel as well as the Project Inspector and shall provide storage container(s). Locate field office(s)/storage container(s) as directed by District's Representative. Upon completion of Work, Entity shall remove any and all temporary field office(s) and storage container(s).

#### 1.05 PARKING OF VEHICLES

- A. Entity shall assume all responsibility for job site vehicle parking of its and its subcontractor's vehicles. Locations of parking shall be as directed by the District's Representative.

#### 1.06 STORAGE AND LAYDOWN AREAS

- A. The District's Representative will coordinate use of available laydown areas. Only areas designated by District's Representative can be used by Entity. Entity is responsible for providing its own fenced storage facilities (trailers or cargo containers.)

#### 1.07 TEMPORARY SITE FENCING AND SECURITY

- A. Entity shall provide and maintain temporary fencing surrounding the buildings and/or rooms under construction, and staging areas. Set-up/relocation of temporary fencing shall be included for each phase of work as shown on the Construction Schedule. Entity is responsible for the security of all equipment, material, and completed construction items. Entity is also responsible for securing any breeches to existing security system/building caused by its Work. Temporary measures may include watchman, temporary doors, temporary alarm, etc.

#### 1.08 SANITARY FACILITIES

- A. Entity shall provide sanitary toilet facilities for use of all Workers employed on Project, in accordance with State and Local health departments. Use of District toilet facilities will not be allowed.

#### 1.09 CLEANUP AND REMOVAL OF DEBRIS

- A. Entity shall assume all responsibility for cleanup and removal of debris created by the Work on a daily basis. No community dumpsters will be provided. In the event unidentifiable job site clutter or debris becomes a problem, at District's Representative's request, Entity shall provide sufficient labor to be directed by District Representative's personnel in a group cleanup effort. If Entity's clean-up is found to be deficient, the District may backcharge the Entity for clean-up and/or withhold Lease Payments as determined appropriate by the District.

#### 1.10 TEMPORARY CONSTRUCTION, EQUIPMENT AND PROTECTION

- A. Entity shall provide, maintain and remove upon completion of Work, all temporary rigging, scaffolding, hoisting equipment, rubbish chutes, ladders, barricades, lights and all other protective structures or devices necessary for safety of Workers and public property as required to complete the Work.
- B. Safety: Entity is responsible for the complete safety of district personnel, students, and the general public at all times.
- C. Walkways and barricades: If Entity's Work interferes with pedestrian traffic, provide pedestrian walkway protection conforming to City standards and CAL OSHA requirements.
- D. Access: Entity is responsible to maintain access to the buildings at all times. Temporary covered walkways and/or barricades may be required.
- E. Protection: Entity must protect all Workers and equipment from power lines by maintaining safe distances and by providing protective devices where and as required by Industrial Safety Commission and CAL-OSHA.
- F. Temporary construction and equipment: All temporary construction and equipment shall conform to all regulations, ordinances, laws and other requirements of State and any other authorities having jurisdiction (including insurance companies), with regards to safety precautions, operations and fire hazards.

1.11 STORM WATER RUN-OFF PLAN

- A. Entity shall implement, provide and maintain an erosion control and storm water pollution prevention plan in accordance with all local agencies having jurisdiction.

1.12 ACCESS TO SITE

- A. Access to the site shall be as directed by the District's Representative.

PART 2 – PRODUCTS – Not Used

PART 3 – EXECUTION – Not Used

END OF SECTION

**SECTION 01 7123  
FIELD ENGINEERING**

**PART 1 - GENERAL**

**1.01 SUMMARY**

**A. Section Includes:**

1. Layout of the work
2. Verification of work
  - a. OWNER reserves the right to verify any work that INSPECTOR deems necessary.
  - b. Other sections that require Surveyor to verify or measure installed work and related item. Surveyor shall perform such verifications or measurements at CONTRACTOR'S expense. CONTRACTOR shall furnish a certification, signed by both Surveyor and CONTRACTOR, to INSPECTOR.

**B. Related Requirements:**

1. Section 01 1100 - Summary of Work.
2. Section 01 3300 - Submittal Procedures.

**1.02 SURVEY CONTROLS**

- A.** Vertical Control shall use same benchmark used in the preparation of topographic survey. When Work consists of both on-site and off-site and benchmarks differ, an equation shall be indicated on Drawings.
- B.** Horizontal control for existing structures shall be the property line.

**1.03 LAYOUT OF WORK**

- A.** All work related to staking shall be by a Land Surveyor, or Civil engineer, registered with the State of California to perform land surveying and employed by CONTRACTOR.
- B.** Before commencement of Work, surveyor shall locate all reference points and benchmarks to be used for vertical and horizontal control.
- C.** Surveyor shall lay out entire Work, set grades, lines, levels, control points, elevations, grids and positions.

**1.04 RECORD DOCUMENTS**

- A.** Maintain complete and accurate log of all control and survey documentation as work progresses.
- B.** Record, by coordinates, all utilities onsite with top of pipe elevations, at major grade and alignment changes, rim, grate or top of curb and flow line elevations of all drainage structures and sewer manholes.
- C.** Indicate reference and control points on record drawings. The basis of elevation shall be one of the established benchmarks.
- D.** Upon Substantial Completion, obtain and pay for reproducible plans. Deliver plans to OAR. Clearly indicate all differences between original drawings and completed work within specified tolerances.

**1.05 SUBMITTALS**

- A.** Surveyor: Shall submit name, address and license number to OWNER, including any changes as they occur.
- B.** Field notes: Upon request by OAR, submit copies of cut sheets, coordinate plots, data collector printouts, marked-up construction staking plans and other documentation as available to verify

accuracy of field engineering work during and at completion of project. Submittals to OWNER must be signed and sealed by Surveyor and counter-signed by CONTRACTOR

- C. Statement of Compliance: CONTRACTOR shall submit a statement of certification signed and sealed by Surveyor, counter-signed by CONTRACTOR indicating compliance with grades and alignment of construction plans at rough grade, fine grade and top of rock stages. INSPECTOR shall approve survey submittals for each stage of construction prior to proceeding with work
- D. Upon Substantial Completion, CONTRACTOR shall obtain and pay for reproducible survey drawings (or "As Built").
- E. Completed record drawings shall be signed and certified as correct and within specified tolerances by licensed surveyor. Originals and two sets of blueprints shall be submitted to OWNER.

## PART 2-PRODUCTS – NOT USED

## PART 3-EXECUTION

### 3.01 PREPARATION

- A. Pre-mark areas of excavation in accordance with the requirements of "Dig-Alert". Request locators 2 days before commencing excavation.
- B. Before commencing Work, establish all horizontal and vertical reference points used in Contract Documents according to existing field conditions.
- C. Preserve established reference lines and benchmarks.
- D. Differentiate school and city datum as applicable.
- E. Relocate bench marks that may interfere with Work.
- F. Reset and re-establish reference marks damaged or lost during construction.

### 3.02 SURVEY REQUIREMENTS GENERAL

- A. Establish a minimum of two permanent horizontal and vertical control points on Project site, remote from construction area, referenced to data established by control points.
- B. Indicate reference points, relative to benchmark elevation, on record drawings.
- C. Provide grade stakes and elevations to construct over excavation and re-compaction, rough and final grades, paved areas, curbs, gutters, sidewalks, building pads, landscaped areas, and other areas as required.
- D. Calculate and layout proposed finished elevations and intermediate controls as required to provide smooth transitions between spot elevations indicated on Drawings.
- E. Provide stakes and elevations for grading, fill, and topsoil placement.
- F. Provide adequate horizontal and vertical control to locate utility lines, including but not limited to, storm, sewers, water mains, gas, electric and signal and provide vertical control in proportion to the slope of the line as required for accurate construction. Dry utilities will be based upon adequate horizontal and vertical control layout. Prior to trench closure, survey and record invert and flow line elevations. Survey and record top of curb and flow line elevations on finished concrete or asphaltic concrete (AC) surfaces at key locations such as beginning-of-curve (BC), end-of-curve (EC), grade breaks, corners or angle points in sufficient number to demonstrate the Work complies with the intent of the Contract Documents.
- G. Provide horizontal and vertical control for batter boards for drainage, utility, and other on-site structures as required.
- H. Furnish building corner offsets as required to adequately locate building pads. Provide cut and fill stakes within the building pad perimeter adequate to control both over excavation and re-compaction and the final sub-grade elevation of the building pad.

- I. Submit a certification signed by the surveyor confirming the elevations and locations of improvements are in conformance with the Contract Documents. The statement shall include survey notes for the finish floor and building pad, showing the actual measured elevations on the completed sub-grade, recorded to the nearest 0.01 of a foot. Building pad tolerance will be plus or minus 0.1 of a foot.
- J. Establish a minimum of two permanent horizontal and vertical control points on Project site, remote from building area, referenced to data established by survey control points.
- K. Mark boundaries for rights-of-way dedications and easements for utilities prior to making location of buildings and utilities.
- L. Layout all lines, elevations and measurements needed for construction or installation of buildings, grading, paving utilities according to the following:
  - 1. Identify site boundary, property lines.
  - 2. Provide working benchmarks.
  - 3. Set stakes for Bottom of Excavated Plane (B.E.P.).
  - 4. Set gridlines, radii, working points etcetera, for foundation.
  - 5. Set and verify building pad elevations.
  - 6. Set finish floor elevations.
  - 7. Stake location and elevations for exterior ramps and stairs.
  - 8. Set gridlines, radii, working points, etcetera, for all floors of multi-story buildings.
  - 9. Set storm drain and sanitary sewer inverts and other utilities as needed at 5-foot off-set from building lines.
  - 10. For new facilities, establish permanent onsite Benchmark with 2-inch diameter brass disk. Location of Benchmark to be determined by OWNER.

### 3.03 SURVEY REQUIREMENTS FOR GRADING

- A. Provide grade stakes and elevations as follows:
  - 1. Removal limits (cut lines).
  - 2. Rough grade staking: 60-foot maximum grid plus additional stakes at grade changes and pertinent locations. Flag all grade changes including ridges, flow lines and grade breaks.
  - 3. Fine grade for top of dirt: 30-foot maximum grid plus additional stakes at grade changes and pertinent locations. Flag all grade changes including ridges, flow lines and grade breaks.
  - 4. Verify fine grade for top of rock: 30-foot maximum grid plus additional stakes at grade changes and pertinent locations. Flag all grade changes including ridges, flow lines and grade breaks.
  - 5. Finish grade marks on all buildings, structures and at pertinent locations
  - 6. Finish grades and offsets for all concrete work, utilities, landscape areas, and structures.
  - 7. Provide controls and baselines for playground striping.
  - 8. Offsite improvements: set grades and provide grade sheets as required by local authorities.
- B. Provide a minimum of two permanent horizontal and vertical control points onsite, remote from building area, referenced to data established by survey control points.

### 3.04 SURVEY REQUIREMENTS FOR UTILITIES

- A. Locate “wet” utility lines and provide vertical control proportionate to slope of line as required for accurate construction. “Dry” utilities shall have adequate horizontal and vertical control layout supplied by others.
- B. Prior to back-filling trench, survey and record invert and flow line elevations. Survey and record top of curb and flow line elevations on finished surfaces at key locations (such as Back of Curbs, grade breaks, corners or angle points) in sufficient number to demonstrate Work complies with intent of Contract Documents.
- C. Provide horizontal and vertical control for batter boards for drainage, utility, and other on-site structures as required.
  - 1. Set grades for vaults one inch higher than adjacent surrounding design grades, unless noted otherwise.
- D. Leave all trenches open until required inspection is completed.

3.05

#### SURVEY REQUIREMENTS FOR STRUCTURES

- A. Furnish building corner offsets as required to adequately locate building pads. Provide cut and fill stakes within building pad perimeter adequate to control both over excavation and re-compaction and final sub-grade elevation of building pad.
- B. Submit a certification signed by surveyor confirming elevations and locations of improvements are in conformance with Contract Documents. Statement shall include survey notes for finish floor and building pad, showing actual measured elevations on completed sub-grade, recorded to nearest 0.01 of a foot. Building pad tolerance will be plus or minus 0.1 of a foot.

END OF SECTION

**SECTION 01 7329  
CUTTING AND PATCHING**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Execute cutting, fitting or patching of Work, required to:
  - 1. Make parts fit properly.
  - 2. Uncover Work to provide for installation of ill-timed Work.
  - 3. Remove and replace Work not conforming to requirements of Contract Documents.
  - 4. Remove and replace defective Work.
  - 5. Remove samples of installed Work as specified for testing.
  - 6. Remove existing materials (demolition) required prior to installation of specified Work.
  - 7. Uncover Work to provide for Architect's observation of covered Work.
- B. Do not endanger structural integrity of any Work by cutting or altering any part of it.
- C. The Contractors with structural responsibility within their scope of Work shall solely execute structural cutting and patching required for this Project, according to DSA Approved Drawings.
- D. Minor cutting and patching of finishes and/or trim will be performed by the Contractor where required for the execution of his Work. Locations of all cutting and patching (core boring, etc.) shall be reviewed and approved by the Architect prior to the start of Work.
- E. The Contractor shall make the field measurements necessary for its Work and be responsible for its accuracy. Also, should any structural difficulties prevent a Contractor from installing its material properly, the District Representative and Architect shall be notified in writing within 24 hours. Cutting into the walls, ceilings and floors, if necessary, shall be carefully and neatly performed and then be repaired as specified in the Contract Documents. The Architect shall be consulted prior to the start of Work in all cases where cutting into a structural portion of the building is either desirable or necessary so that satisfactory reinforcement may be provided.
- F. Patching of all exposed architectural finishes shall be performed under the supervision of the Inspector. Cutting and patching of existing architectural finishes shall be minimized to the extent possible through careful routing and placement of new Work. The Architect or Inspector shall have the authority to reject substandard or unacceptable patching.
- G. Patching of openings that are cut in any fire rated walls or membranes shall be sealed tightly using approved materials only. Verify that fire rating envelopes are maintained and inspections provided prior to concealing Work. Cutting and patching, if required by Agencies to verify adequacy of protection after concealment, shall be performed at no cost to the District.

**1.02 RELATED SECTIONS**

- A. Section 00700 - General Conditions.
- B. Section 00800 - Special Provisions.

**1.03 SUBMITTALS**

- A. Prior to cutting which affects structural safety of Project, submit written notice to Architect requesting consent to proceed with cutting. See items "C" and "E", Section 1.01.
- B. Should conditions of Work or schedule require change of materials or methods, submit written recommendation to Architect, within 48 hours, including:
  - 1. Conditions requiring change.

2. Recommendations for alternative materials or methods.
  3. Submittals as required for substitutions.
  4. Quotations of charges or credits.
- C. Submit 48-hour advance written notice to Architect (with a copy to the District Representative) designating the time Work will be uncovered.
- D. Submit all materials to be used in cutting and patching in accordance with Specification Section 00700.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

- A. Primary Products: Materials for replacement of Work removed are to comply with Technical Specifications and are required to match original installation.
- B. Product Substitution: For any proposed change in materials, submit request for substitution in accordance with Specification Section 00700.

## PART 3 - EXECUTION

### 3.01 EXAMINATION

- A. Examine existing conditions prior to commencing Work, including elements subject to movement or damage during cutting and patching.
- B. After uncovering existing Work, examine conditions affecting installation of new products and performance of Work.
- C. Beginning of cutting or patching operations means acceptance of existing conditions.

### 3.02 PREPARATION

- A. Provide means of shoring, bracing and temporary supports as required to maintain structural integrity of the Work.
- B. Provide devices, enclosures and methods to protect adjacent surfaces and areas of the property from damage, dust or disruption.
- C. Provide protection from the elements for areas, which may be exposed during cutting or patching.
- D. Maintain excavations free of water.

### 3.03 CUTTING

- A. Execute cutting, fitting and adjustment of products to permit finished installation to comply with specified tolerances and finishes.
- B. Perform cutting and demolition by methods, which will prevent damage to other Work, and will provide proper surfaces to receive installation of repairs and new Work.
- C. Uncover Work to install improperly sequenced Work.
- D. Remove and replace defective, rejected or non-conforming Work.
- E. Remove samples of installed Work for testing when requested.



- F. Provide openings in the Work for penetration of Mechanical and Electrical Work.
- G. Employ only experienced installers to perform cutting for weather exposed, moisture resistant and sight-exposed surfaces.
- H. Cut concrete, tile plaster and other rigid materials using masonry/concrete saws and core drills. Pneumatic tools are not allowed without prior approval.

#### 3.04 PATCHING

- A. Execute patching to match adjacent Work.
- B. Fit products together to integrate seamlessly with adjacent Work.
- C. Execute patching by methods to avoid damage to adjacent Work, and which will provide appropriate surfaces to receive finishing Work.
- D. Employ only experienced installers to perform patching for weather exposed, moisture resistant and sight-exposed surfaces.
- E. Restore Work with new products in accordance with requirements of the Contract Documents.
- F. At penetrations of fire rated walls, partitions, ceiling or floor construction, completely seal voids with approved fire rated material in accordance with the manufacturers installation instructions and applicable Codes.
- G. Fit Work to pipes, sleeves, ducts, conduits and other penetrations through affected surfaces neatly and leave in finished condition.
- H. All patched surfaces are to match adjacent finishes in all respects: Type, texture, thickness and color. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit or area.

END OF SECTION

## **SECTION 01 7423 FINAL CLEANING**

### **PART 1 – GENERAL**

#### **1.01 SUMMARY**

- A. Use cleaning materials and methods which will not create hazards to health or property or cause damage to products and which are recommended by manufacturers of products to be cleaned.
- B. Comply fully with Federal and local environmental and antipollution regulations.
- C. Do not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in storm or sanitary drains.
- D. Burning or burying of debris, rubbish, or other waste material on the premises is not permitted.

#### **1.02 RELATED SECTIONS**

- A. General Construction Terms and Conditions
- B. Technical Specifications

### **PART 2 – PRODUCTS – Not Used**

### **PART 3 – EXECUTION**

#### **3.01 DAILY CLEANING**

- A. Entity is responsible for daily cleanup and a final cleaning prior to occupancy and prior to acceptance of the Project by the District. This section only addresses the final cleaning required prior to punch listing and occupancy.
- B. Cleaning Program:
  - 1. The cleaning program shall include all construction areas and surrounding areas affected by the construction including site, exteriors of buildings / structures, roofs and interior of buildings.
  - 2. The areas to be cleaned shall be turned over to the District in a "move-in" condition.
  - 3. All areas shall be free of all construction materials, dust, debris, markings and dirt.
  - 4. All surfaces shall be washed, cleaned and cleared of markings.
  - 5. All existing and new fixtures shall be cleaned, sanitized and ready for use.
  - 6. All new and existing hard surface floors will be stripped and waxed.

#### **3.02 FINAL CLEANING**

- A. Provide employ experienced workers or professional cleaners for final cleaning.
- B. Clean each surface or unit of Work to the condition expected from a commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
- C. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for the entire Project or a portion of the Project.
  - 1. Clean the Project Site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and foreign substances.
  - 2. Sweep paved areas broom clean. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
  - 3. Remove petrochemical spills, stains, and other foreign deposits.
  - 4. Remove tools, construction equipment, machinery, and surplus material from the site.

5. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
  6. All walls not newly painted shall be washed to clean readily removable dirt, markings, dust, and grime.
  7. Remove debris and surface dust from limited access spaces, including roofs, attics and similar spaces.
  8. All existing floors shall be thoroughly stripped of old wax and have at least four (4) coats of a combination wax/sealer, or two (2) coats of sealer and four (4) coats of wax. Contractor shall submit for prior approval manufactures information on floor finish to be applied. All new floors shall have their factory seal stripped off and shall have a floor finish applied according to the recommendations of the manufacturer.
  9. New carpeted areas shall be thoroughly vacuumed, including edges. Any spotting during construction shall be removed. Existing carpeted areas shall be thoroughly shampooed.
  10. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces. Clean interior and exterior of all windows.
  11. Clean all Toilet Rooms thoroughly and sanitized. All wall surfaces shall be free of grime, dirt, dust, markings and graffiti. All mirrors, fixtures, and partitions will be cleaned free of dirt and markings.
  12. Scrub and seal all ceramic and terrazzo floors and walls.
  13. Remove labels that are not permanent labels.
  14. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
  15. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
  16. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  17. Replace disposable air filters and clean permanent air filters. Clean all exposed surfaces of diffusers, registers, and grilles.
  18. Clean ducts, blowers, and coils if units were operated without filters during construction.
  19. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned out bulbs; defective and noisy starters in fluorescent fixtures, and defective dimming switches.
  20. Leave the Project clean and ready for occupancy.
- D. Removal of Protection: Remove temporary protection and facilities installed during construction to protect previously completed installations during the remainder of the construction period. Repair any damage from removal.
- E. Compliances: Comply with governing regulations and safety standards for cleaning operations. Remove waste materials from the site and dispose of lawfully.
- F. Where extra materials of value remain after completion of associated Work, they become the District's property. Dispose of these materials as directed by the District.

END OF SECTION



**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

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

**1.2 SUMMARY**

- A. This section includes administrative and procedural requirements for testing laboratory services, for inspections, tests, and related actions, including reports prepared by Contractor, by independent agencies, and by governing authorities. Contract enforcement activities performed by Architect are not included.

**1.3 REQUIREMENTS INCLUDED**

- A. General: Owner will employ and pay for services of an independent testing laboratory to perform specified testing. Costs of retesting after failed test will be paid by Owner and deducted from contract amount. Testing laboratory shall be approved by the Architect.
- B. Coordination: Coordinate the sequence of activities to accommodate required services with a minimum of delay. Coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests. The Contractor is responsible for scheduling times for inspections, tests, taking samples, and similar activities.
- C. Cooperation: Cooperate with laboratory to facilitate required services.
- D. Performance of Work: Employment of laboratory shall not relieve Contractor's obligations to perform work of Contract.

**1.4 RELATED REQUIREMENTS**

- A. Conditions of the Contract: Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities.
- B.
- C. Listed Specification Sections: Laboratory tests required and standards for testing.
- D. Testing Laboratory Inspection, Sampling and Testing is Required for:
  - 1. Earthwork and Trenching: Section 31 00 00.
  - 2. Flexible (Asphalt) Paving: Section 32 12 00.

**PART 2 - PRODUCTS**

Not Used

**PART 3 - EXECUTION**

**3.1 LABORATORY DUTIES**

- A. General: Comply with ASTM E329 "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel as Used in Construction".
- B. Cooperation: Cooperate with Architect, Engineer and Contractor; provide qualified personnel after due notice.
- C. Services:
  - 1. General: Perform specified inspections, sampling and testing of materials and methods of construction.
  - 2. Specified Standards: Verify compliance.
  - 3. Specified Materials: Ascertain compliance with requirements of Contract Documents.
- D. Notification: Promptly inform Architect and Engineer of observed irregularities or deficiencies of work or products.
- E. Distribution of Reports: Distribute 1 copy of certified written report, of each inspection, test, or similar services to each of the following: Owner, Architect, Contractor, and Civil Engineer
- F. Additional Testing: Perform additional tests as required by Architect or Owner.

**3.2 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY**

- A. Laboratory is Not Authorized to release, revoke, alter or enlarge on requirements of Contract Documents or perform any duties of Contractor.

**3.3 CONTRACTOR'S RESPONSIBILITIES**

- A. Coordination:
  - 1. Scheduling: Notify laboratory sufficiently in advance of operations to allow laboratory to schedule tests and assign personnel. When tests or inspections cannot be performed after such notice, reimburse Owner for laboratory personnel and travel expenses incurred.
  - 2. Laboratory Personnel: Cooperate with, provide access to Work, and to manufacturer's operations.
  - 3. Inspector, if applicable: Cooperate with Inspector to secure and deliver to laboratory adequate quantities of representative samples of materials proposed for use and that require testing.
  - 4. Report Distribution: Provide contact name and addresses to laboratory for test report distribution.
- B. Statement of Responsibility: The contractor's statement of responsibility shall contain the following for each system or component requiring special inspection:

1. Acknowledgment of awareness of the special requirements contained in the statement of special inspections.
  2. Acknowledgement that control will be exercised to obtain conformance with the construction documents approved by the building official;
  3. Procedures for exercising control within the contractor's organization, the method and frequency of reporting and the distribution of the reports; and
  4. Identification and qualifications of the person(s) exercising such control and their position(s) in the organization.
- C. Manufacturer's Test Reports: Furnish copies of products test reports as required.
- D. Incidental Labor and Facilities: Provide access to Work to be tested; facilitate inspections and tests.
- E. Additional Testing: Paid for by Owner and backcharged to Contractor as specified in the individual sections.
- F. Repair and Protection: Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes.

END SECTION 01 45 29





## **PART 1 - GENERAL**

### **1.1 RELATED DOCUMENTS**

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

### **1.2 SUMMARY**

- A. This Section includes concrete, formwork, reinforcement, and related work as shown and specified.

### **1.3 SUBMITTALS**

- A. Product Data: Submit manufacturer's data, installation instructions and evidence of compliance with requirements of this section for the following:
  - 1. Cement: Submit certification from cement manufacturer that the cement proposed for use on the project has been manufactured and tested in compliance with the requirements of ASTM C150 for Portland cement and ASTM C595 or C1157 for blended hydraulic cement, whichever is applicable.
  - 2. Reinforcement: Submit mill test and chemical analysis certificates for all reinforcing steel delivered to the site.
- B. Shop Drawings: Reinforcement shop drawings in accordance with ACI 315. Show all fabrication and installation details and dimensions, including embedded items.
- C. Mix Designs: Include record of test data per CBC 1903A. Identify mixes by design strength, intended use, and placement restrictions, such as "pump mix" or "hot weather mix".
- D. Materials List: Within 35 days after award of Contract, and before any concrete is delivered to the jobsite, submit to Architect a complete list of all materials proposed to be used in this portion of the work, showing manufacturer's name and catalog number of all items such as admixture, membrane, concrete mix design and the name and address of supplier of transit-mix concrete.
- E. Placement Records: Keep on job site until completion, and open to inspection, record showing time and date of placing concrete in each portion of structure together with transit-mix delivery slip certifying contents of each placement. Delivery placement record and delivery slips to the architect upon completion of the work.
- F. Closeout Submittals: Provide completed Guarantee form per Article 1.5.

#### **1. QUALITY ASSURANCE**

- G. Installer Qualifications: Minimum of 3 years of experience on similar work; knowledge and understanding of standards referenced herein; skill necessary to perform in compliance with this specification. Installers failing to demonstrate the required experience, knowledge, or skill shall be removed from the project.
- H. Reference Standards:
  - 1. American Society of Testing Materials (ASTM): Materials and testing standards as identified throughout this Section.
  - 2. American Concrete Institute (ACI):
    - a. ACI 301: Specifications for Structural Concrete for Buildings.

- b. ACI 302.1R: Guide for Floor and Slab Construction.
  - c. ACI 304R: Guide for Measuring, Mixing, Transporting and Placing Concrete.
  - d. ACI 305R: Hot Weather Concreting.
  - e. ACI 306R: Cold Weather Concreting.
  - f. ACI 308: Standard Practice for Curing Concrete.
  - g. ACI 315: Details and Detailing of Concrete Reinforcement
  - h. ACI 318: Building Code Requirements for Reinforced Concrete.
  - i. ACI 347R: Recommended Practice for Concrete Formwork.
  - j. ACI SP-66: Detailing Manual.
- 3. American Welding Society (AWS): AWS D1.4 - Structural Welding Code - Reinforcing Steel.
  - 4. California Building Code (CBC) 2013, Chapter 19A, for concrete requirements.
  - 5. Concrete Reinforcing Steel Institute (CRSI): Manual of Standard Practice.
  - 6. National Ready Mixed Concrete Association (NRMCA): Check List for Certification of Ready Mix Concrete Production Facilities.
- I. Testing: Refer to Section 01 45 29 – TESTING LABORATORY SERVICES.

#### 1.4 GUARANTEE

- A. Provide in required form for a period of 2 years from date of acceptance by Owner.
- B. **Provide composite detectable warning panels warranty on manufacturer's form that products are to be free from defects in materials and workmanship for 5 years beginning at date of acceptance by Owner.**

#### 1.5 DELIVERY

- A. Deliver undamaged products to job in manufacturer's sealed containers and original bundles with tags and labels intact.

### PART 2 - PRODUCTS

#### 2.1 FORMWORK

- A. Forms:
  - 1. Lumber: Construction grade Douglas Fir. Hand select at exposed finishes to produce smooth, true surfaces.
  - 2. Plywood: APA B-B Plyform, Class 1 or better, mill oiled and edge sealed; thickness as required to achieve true plane surfaces with forming system used, minimum 5/8 inch thickness.
- B. Fasteners: As required; of sufficient strength and character to maintain formwork in place while placing concrete.
- C. Form Release Agent: Colorless mineral oil which will not stain the concrete or impair natural bonding characteristics of coating intended for use on concrete.

## 2.2 VAPOR BARRIER

- A. General: 10 mil polyethylene sheeting.
- B. Joint Tape: As recommended by manufacturer.

## 2.3 REINFORCEMENT

- A. Reinforcement Bars: ASTM A615, deformed; Grade 60 unless noted otherwise. ASTM A706 for all bars to be welded and where shown.
- B. Reinforcing Supports:
  - 1. General: Metal chairs, bolsters, bar supports, or spacers, sized and shaped for strength and support during concrete placement.
  - 2. Footings: Bottom bars supported with concrete blocks.
- C. Tie Wire: 16 gage annealed type.

## 2.4 ANCHOR BOLTS

- A. ASTM A307; rolled body bolts with upset threads not permitted.

## 2.5 TIE WIRE

- A. 16 gage annealed type.

## 2.6 CONCRETE

- A. Cement: Portland cement; ASTM C150, Type I or II, per ACI 318 Section 3.2
- B. Aggregates:
  - 1. General: ASTM C33, except as modified by this Section and per CBC Section 1903A.3.
  - 2. Lightweight: ASTM C330.
- C. Water: Clean and free from deleterious amounts of acids, alkalis, scale, or organic materials; CBC Section 1903A.4.
- D. Admixtures:
  - 1. Water Reducing and Retarding Admixture: ASTM C494, type D.
  - 2. Water Reducing Admixture (cool weather): ASTM C494, type A.
  - 3. Mid-range Water Reducing Admixture: Master Builders "Polyheed" or approved equal.
  - 4. Air Entrainment Admixture: ASTM C260.
  - 5. Fly Ash: ASTM C618, Class N or F. Class C not permitted.
    - a. Use water vapor emission system selected by Owner. Only use Moxie if Owner requests it. Moxie 1800 is a liquid admixture. Do not use Moxie with other water vapor emission control

**2.7 BONDING AGENT FOR PATCHING**

- A. Acceptable Products: Acryl 60, as manufactured by Master Builders Technologies, Inc.

**2.8 NON-SHRINK GROUT**

- A. Per ASTM C-1107, consisting of non-metallic aggregate, cement, water reducing and plasticizing additives, capable of developing a minimum compressive strength of 7,000 psi at 28 days.

**2.9 EXPANSION JOINT MATERIALS**

- A. Expansion Joint in Concrete (EJ-C): ASTM D 1751, preformed; 3/8 inch thick, unless otherwise shown.
- B. Removable Expansion Joint Cap:
  - 1. Acceptable Products:
    - a. Sandell's Removable Expansion Joint Cap, as manufactured by Sandell Construction Solutions.
    - b. Snap-Cap, as manufactured by W. R. Meadows, Inc.
    - c. Model No. EXPJ-006, as manufactured by Right/Pointe Company.
  - 2. Alternate Products: Proposed equals are subject to substitution process per Section 01 33 00 – PRODUCT SUBMITTALS AND SUBSTITUTIONS.
  - 3. Use at expansion joints in pavement and other horizontal surfaces
  - 4. Size: 3/8 inch wide, depth of concrete.

**2.10 SEALANT FOR JOINTS AND CRACKS**

- A. Acceptable Products: Sikaflex-2c NS, as manufactured by Sika Corp; two component polyurethane, or per vapor control manufacturer's recommendation.

**2.11 DESIGN AND MIXING**

- A. Mix Designs:
  - 1. Mix designs shall be prepared at contractor's expense by a registered civil engineer experienced in concrete mix design in accordance with CBC Section Chapter 19A. Identify mixes by design strength, intended use, and placement restrictions, such as "pump mix" or "hot weather mix".
  - 2. Concrete at Buildings: 3,000 psi concrete at floor slab patches.
  - 3. Concrete slabs which will receive adhered finish flooring shall have a maximum water cement ratio of 0.50.
  - 4. Site Concrete: 3000 psi at 28 days; 1 inch maximum aggregate size; 0.50 maximum water to cement ratio. Exposed concrete to have 4% air entrainment maximum.
  - 5. Slump:
    - a. Footings and Retaining Walls: 3 inches plus or minus 1 inch.

- b. Flatwork: 4 inches plus or minus 1 inch. Exception: mixes using mid-range water reducing admixture shall have a 2 inch maximum slump before dosing and 6 inches maximum slump after dosing.
- 6. Water Reducing Admixture: Water reducing and retarding admixture (type D) is required for all concrete to be placed on days when the daily high temperature is expected to exceed 80 degrees Fahrenheit. Water reducing admixture (type A) may be substituted in mixes to be placed on cooler days.
- 7. Fly Ash: Not to exceed 15% of the total cementitious material.
- 8. Carbon Black Coloring: Tone down exterior concrete slabs, walks, ramps, stairs (including bleachers) and other exposed flatwork to eliminate glare, using dispersed carbon black in liquid form at rate of not more than 3 pounds per cubic yard of concrete. Exact amount used will depend on color of cement, and shall be as directed. Add color to mix in accord with manufacturer's printed instructions.

**B. Mixing of Concrete:**

- 1. General: Concrete shall be transit mixed per CBC Chapter 19A and ASTM C94. Mix until there is uniform distribution of material and mass is uniform and homogeneous; mixer must be discharged completely before the mixer is recharged.
- 2. Ready-Mix Concrete: Mix and deliver in accordance with the requirements set forth in CBC Section 1904A.2 and ACI 318. Batch Plant Inspection may be waived in accordance with CBC Section 1705A.3.3 when approved by Civil Engineer and the Division of the State Architect.
  - a. Approved inspector of the testing laboratory shall check the first batching at the start of the work and furnish mix proportions to the licensed Weighmaster.
  - b. Licensed Weighmaster to positively identify materials as to quantity and to certify to each load by ticket.
  - c. Ticket shall be transmitted to Project Inspector by truck driver with load identified thereon. Inspector will not accept load without load ticket identifying mix and will keep daily record of pours, identifying each truck, its load and time of receipt and will transmit 2 copies of record to authority having jurisdiction.
  - d. A minimum of 1 set of 2 cylinders shall be taken and tested for each 50 cubic yards of concrete or fraction thereof.
- 3. Admixtures: Verify compatibility of concrete admixtures when multiple admixtures are used in a specific mix. Proportion and mix in accordance with manufacturers written instructions.
- 4. Job Mixed Concrete:
  - a. General: Not allowed without prior approval of Architect. Use batch mixer of approved type, with capacity to handle one or more full sack batches, no split sack batches permitted. Operate as recommended by manufacturer, mixing at least 1-1/2 minutes after all materials are in drum.
  - b. Handling and Mixing of Concrete: Subject to approval of inspector and architect.

**2.12 COMPOSITE DETECTABLE WARNING PANELS**

**A. Acceptable Manufacturers:**

- 1. ADA Solutions, Inc.

- 2. Access Tile, Access Products Inc.
- B. Alternate Manufacturers: Proposed equals are subject to substitution process per Section 01 33 00 - PRODUCT SUBMITTALS AND SUBSTITUTIONS.
- C. Panel System: Cast in place replaceable with 1-1/2 inch depth.
- D. Nominal Size: Manufacturer's largest standard size to suit project; sections less than 36 inches in any direction are not acceptable, unless noted otherwise.
- E. Color: Yellow conforming to FS 33583 of Federal Standard 595C. Color shall be integrally mixed with warning surface. Surface applied color onto warning surface is not allowed.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Examine conditions of work in place before beginning work; report defects.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### **3.2 PREPARATION**

- A. Notify Architect and Structural Engineer at least 48 hours prior to placing of concrete.
- B. Environmental Requirements: Per ACI 305R and ACI 306R.
- C. Take field measurements; report variance between plan and field dimensions.
- D. Store cement in weather tight building, permitting easy inspection and identification. Protect from dampness; lumpy or stale cement will be rejected.
- E. Protect finish surfaces adjacent to locations scheduled for placement of concrete. Inspect forming placed against existing work and establish a tight, leak-proof seal before concrete is poured. Replace finish work defaced by concrete placement operations.

### **3.3 INSTALLATION**

- A. Install in conformance with referenced standards, manufacturer's written directions, as shown, and as specified.
- B. Install to allow application of subsequent finish materials within specified tolerances.
- C. Formwork:
  - 1. General:
    - a. Workmanship: Provide formwork required to produce smooth concrete; straight, plumb and true to plane. Concrete out of line, level or plumb will be rejected.
    - b. Material: Provide straight, true and sound form material, able to withstand deformation due to loading and the effects of moist curing. Do not reuse warped or delaminated materials that require patching of contact surfaces.
    - c. Construction: Construct forms to shapes, lines, grades and dimensions indicated; tight to prevent leakage, properly braced and tied together to maintain position and shape. Form bevels, grooves and recesses to neat, straight lines; chamfer corners where indicated. Provide for easy removal without hammering, wedging or prying against concrete.

- d. Adjustment: Tighten forms, posts and shores during and immediately after concrete placement; readjust as required to maintain grades, levels and camber.
  - e. Exposed Finish: At vertical surfaces exposed to view and other conditions where formed surface will be visible, formwork shall be crafted to produce finished concrete without further work such as sacking or patching. Finish shall be is smooth, true to plane, uniform in appearance, and free irregularities and defects at time of stripping. Small air pockets less than ¼ inch in diameter will not be considered defective. Vertical Surfaces: Provide formwork required to produce finished concrete that is smooth, true to plane, uniform appearance, and free irregularities and defects at time of stripping. Small air pockets less than ¼" in diameter will not be considered a defect.
2. Embedded Components:
- a. General: Install straight, level and plumb prior to concrete placement; brace, anchor and support items to prevent displacement or distortion.
  - b. Inserts: Coordinate work of other Sections in setting bolts, anchors, and other components, as required.
  - c. Formed Openings: Provide slots, recesses, chases and sleeves where required for work to be imbedded in or pass through concrete.
3. Anchor Bolts: Install as shown.
4. Form Coating:
- a. General: Before placement of reinforcing steel, coat exposed face of forms to prevent moisture absorption from concrete and facilitate removal of forms; seal all cut edges.
  - b. Re-use: Thoroughly clean and recoat form material acceptable for re-use.
- D. Reinforcement:
- 1. Fabrication: Do not bend or straighten reinforcement in manner that will injure material. Bars with kinks or bends not shown, and heating of bars for bending is not permitted.
  - 2. Placement:
    - a. Reinforcement shall be accurately placed at locations indicated on the drawings within required tolerances and providing required clearances. Reinforcement shall be secured prior to placement of concrete such that tolerances and clearances are maintained. Coverage shall be in accordance with CBC Section 1907A.7.
    - b. Provide minimum center to center distance between parallel bars 2-1/2 times diameter, 1-1/2 inches or 2-1/2 times maximum size coarse aggregate. Wire bar lap together; splice reinforcing steel with lap of 69 diameters, unless otherwise shown.
- E. Expansion Joints:
- a. Location: As shown. If not shown at exterior locations, place at 20 feet on center.
  - b. Flush Sealant: Unless noted otherwise, hold expansion joint material 1 inch back from finish surface. Provide sealant flush with finish surface.
  - c. Depressed Sealant: Where shown as drainage channel, depress expansion joint to provide ½ inch deep recess after sealant is applied.
- F. Cast-In-Place Concrete:

1. General: Placement of forms, inserts and reinforcements are subject to approval of Architect. Notify Architect and Structural Engineer at least 48 hours prior to placement of concrete.
2. Cleaning:
  - a. General: Remove dirt, wood chips, sawdust and other debris before concrete pour; use compressed air at inaccessible areas. Remove all water from excavations.
  - b. Reinforcing: Clean reinforcement and other embedded items of substances that might impair bonding, prior to placement of concrete.
  - c. Previously Placed Concrete: Roughen to 1/4 inch amplitude; clean with steel brush prior to applying bonding agent.
3. Vapor Barrier:
  - a. General: Install under interior slabs on grade. Lap joints minimum 6 inches and seal watertight.
  - b. Penetrations: Seal watertight; repair penetrations and damage with vapor barrier material and lapped minimum 6 inches over area and sealed with joint tape.
4. Placing of Concrete:
  - a. General: Maintain records for placement of all concrete. Place concrete in dry conditions; keep excavations free of water, ice, loose soil or debris.
  - b. Weather Requirements: Per ACI 305R (Hot) and ACI 306R (Cold). Hot weather is defined as any period in which temperature exceeds 85 degrees F.
  - c. Transportation: Handle concrete from mixer to place of deposit as rapidly as possible; using methods to prevent separation or loss of ingredients. Deposit in final position; avoid rehandling or flowing. Do not place partially hardened concrete in work. Do not wheel placement containers directly on top of reinforcing steel.
  - d. Placement:
    - i. General: Place concrete continuously between predetermined expansion, control and construction joints. Do not break or interrupt placement of concrete in manner that cause cold joints to occur.
    - ii. Footings: Place footings in one continuous pour.
    - iii. Concrete Slabs: Lay slabs to required lines and grades, in pattern shown. Water subgrade at exterior concrete the night before placement; dampen again immediately before placement; standing water not allowed.
5. Compacting:
  - a. General: Thoroughly work concrete around reinforcement, embedded components and into corners of forms. Consolidate concrete by internal vibration, only. Do not puddle, tamp or vibrate concrete which has already taken initial set or continue long enough cause segregation of material.
  - b. Slabs: Consolidate concrete on grade by spading and puddling and internal vibration.
  - c. Formwork: Consolidate concrete in forms with high speed internal vibrators.
6. Flatness:



- a. Typical Interior Slabs: True to 1/8 inch in 10 feet when measured with a 10 foot straight edge. Slabs to receive finish flooring may be patched with approved hydraulic cement to required flatness. Polished concrete floors and other exposed concrete floors shall be removed and replaced if they do not meet the flatness requirements per ASTM E1155.
  - b. Exterior Slabs: as required to avoid "bird baths" and meet accessibility maximum slopes; true to maximum 1/8 inch in 10 feet.
7. Concrete Finishes:
- a. Slab Finish:
    - i. General: Uniformly spread, screed and float concrete.
    - ii. Float: Apply at tile setting beds, where shown.
    - iii. Trowel: Apply 2 steel troweling operations at surfaces to receive carpet, resilient materials, thinset tile and where left exposed. Finish interior exposed concrete to achieve burnished surface.
    - iv. Broom (BRF): Apply medium broom finish at exterior exposed surfaces, perpendicular to direction of traffic flow. Apply medium broom finish at slopes less than 5% at the designated path of travel; apply heavy broom finish at slopes greater than 5%.
  - b. Vertical Surfaces:
    - i. Vertical Formed (VF): Vertical surfaces and other formed surfaces permanently exposed to view after stripping shall be smooth, uniform and free of defects without additional finish work after stripping. Minor sacking and repair work will be allowed only if it blends with the adjacent finish and is not visually distinguishable.
  - c. Vertical Troweled (VT): Curbs adjacent to pavement and vertical surfaces requiring troweled finish shall be stripped at the appropriate time and troweled to a burnished finish to match adjacent or nearest slab finish and shall be true to line with a maximum tolerance of 1/8 in 10 feet.
8. Joints:
- a. Exterior Joints: Mark off exposed joints, where indicated, with 1/2 inch radius by 1 1/2 inch deep joint tool. Markings to be clean cut, straight and square with respect to border. Tool edges of exposed expansion and control joints, border edges, and wherever concrete adjoins other material or vertical surfaces.
  - b. Interior Joints: Joints in concrete to be left exposed shall be made with a 1/4 inch radius by 1 1/2 inch deep joint tool. Saw cut joints at interior slabs to receive flooring only. Saw cut joints as soon as slab will support foot traffic. Complete all saw cutting as part of finishing operation.
  - c. Horizontal Construction Joints: Keep exposed concrete face of construction joints continuously moist after initial set until placement of concrete; thoroughly clean contact surface by exposing solidly embedded aggregate, or by other method that will assure proper bonding.
9. Curing:
- a. General: Refer to ACI 308. Protect concrete from premature drying for minimum 5 days following pour.
  - b. Exterior Slabs: Cover and cure with membrane curing compound as soon as slab can take foot traffic, or approved method; upon completion wash clean.

- c. Interior Slabs: Cure with curing compound as soon as slab can take foot traffic (after any saw cutting).
  - d. Concrete in Forms: Keep wet until forms are stripped.
- 10. Removal of Forms: Remove without damage to concrete surfaces.
  - a. Sequence and timing of form removal shall insure complete safety of concrete structure.
  - b. Forms shall remain in place for not less than the following periods of time. These periods represent cumulative number of days during which temperature of air in contact with concrete is 60 degrees F and above.
    - i. Vertical Forms of Foundations, Walls and All Other Forms Not Covered Below: 7 days.
    - ii. Slab Edge Screens or Forms: 5 days.
    - iii. Concrete Columns and Beams: 14 days.
- 11. Sealant: Fill all interior slab joints with sealant. Fill all expansion joints with sealant. Fill all cracks in areas to receive adhered flooring with sealant.
- 12. Defective Concrete:
  - a. General: Remove or cut out defective concrete and repair before concrete is completely cured, as directed by Architect.
  - b. Defective Concrete is:
    - i. General: Concrete not meeting specified 28-day strength.
    - ii. Finish: Concrete not matching the specified finish.
    - iii. Durability and Appearance: Concrete containing rock pockets, voids, spalls, cracks, exposed reinforcing, or other defects.
    - iv. Construction: Concrete out of line, level, flatness, plumb, or location.
    - v. Deleterious Materials: Concrete containing embedded wood or other debris.
    - vi. Unsatisfactory Patching: Concrete that was not patched under Architect's direction or patching that does not meet the specification for new concrete.
    - vii. Embedded Items: Concrete not containing required embedded items.
  - c. Patching:
    - i. General: Repair minor defective work with approved patching material.
    - ii. Patching of serious defects affecting the strength or appearance of the concrete are unsatisfactory, will not be accepted and shall be completely removed and replaced.
    - iii. Preparation: Chip out minor defective areas to a minimum depth of 1 inch, with edges perpendicular to surface. Wet area at least 6 inches around surface to be patched to prevent absorption of water from patching mortar.
    - iv. Repair: Coat with cement wash mix consisting of neat cement and solution of specified bonding agent. Immediately apply patching mortar consisting of 1 part cement to 3 parts fine aggregate mixed with solution with minimum water required for placement.
    - v. Finishing: Match adjoining surfaces; provide protective covering; keep wet for at least 7 days.

### 3.4 COMPOSITE DETECTABLE **WARNING** PANELS

- A. Set panels in wet concrete.
- B. Concrete shall be finished level, true and smooth to the required dimensions prior to placement of panels; mechanically fastened panels are not acceptable unless noted otherwise.
- C. Work in a grid pattern and install panels in largest size possible with minimal cutting of panels. Sections less than 36 inches in any direction are not acceptable. Tamp panels with rubber mallet and wood to release air. Avoid striking the surface directly. ]
- D. Place an 8 x 8 x 16 inch concrete masonry unit or similar weight item on both ends of panels until concrete has set.

### 3.5 FIELD QUALITY CONTROL

- A. General: Per CBC, Section 1704A; agency selected and paid for by Owner.
- B. Field Testing:
  - 1. General: The following testing will be performed by the **[Project Inspector]** or the Owner's testing lab in accordance with ASTM procedures. Test cylinders are to be provided by the contractor.
  - 2. Cylinders: Make, cure, and store 1 set of 3 cylinders, for each 50 cubic yards (or not less than once for each 2,000 square feet of surface area for slabs or walls) of each concrete mix being placed not less than once per day per ASTM C31. Test cylinders per ASTM C39. Test first cylinder at the age of 7 days and the other at 28 days; cylinder for 28-day test will not be broken if cylinder for 7-day test meets 28-day strength. Hold third cylinder for 56 day test, if required. Additional samples for 7-day compressive strength tests shall be taken for each class of concrete at the beginning of the concrete work or whenever the mix or aggregate is changed.
  - 3. Slump: Perform one slump test, per ASTM C143, for each 15 cubic yards of concrete placed and for each cylinder taken.
  - 4. Reinforcement: Make 1 tensile test and 1 bend test of specimen taken from each 10 tons of steel delivered to the site.
- C. Retesting: Cost of retests or coring because of low strength, or defective concrete will be paid for by Owner and deducted from the contract cost

### 3.6 CLEANING

- A. Keep premises free from accumulation of waste and debris. At completion of installation remove surplus materials and debris.

END SECTION 03 30 00



**PART 1 - GENERAL****1.1 SUMMARY****A. Table of Contents, Division 26 - Electrical:**

<u>SECTION NO.</u>	<u>SECTION TITLE</u>
260010	BASIC ELECTRICAL REQUIREMENTS
260531	CONDUIT
260533	BOXES
260553	ELECTRICAL IDENTIFICATION

**B. Work included:** This Section includes general administrative and procedural requirements for Division 26. The following administrative and procedural requirements are included in this Section to supplement the requirements specified in Division 01.

1. Quality assurance.
2. Definition of terms.
3. Submittals.
4. Coordination.
5. Record documents.
6. Operation and maintenance manuals.
7. Rough-in.
8. Electrical installation.
9. Cutting, patching, painting and sealing.
10. Field quality control.
11. Cleaning.
12. Project closeout.

**C. Related Work:** Consult all other Sections, determine the extent and character of related Work and properly coordinate Work specified herein with that specified elsewhere to produce a complete and operable installation.

1. General and supplementary conditions: Drawings and general provisions of Contract and Division 01 of the Specifications, apply to all Division 26 Sections.
2. Earthwork: Include trenching, backfilling, boring and soil compaction as required for the installation of underground conduit, in-grade pull boxes, vaults, lighting pole foundations, etc. Refer to Division 31, Earthwork.
3. Selective demolition: Nondestructive removal of materials and equipment for reuse or salvage as indicated. Also dismantling electrical materials and equipment made obsolete by these installations. Refer to Division 02, Selective Demolition.

## BASIC ELECTRICAL REQUIREMENTS - SECTION 26 00 10

### Page 2

4. Concrete Work: Include forming, steel bar reinforcing, cast-in-place concrete, finishing and grouting as required for under ground conduit encasement, light pole foundations, pull box slabs, vaults, housekeeping pads, etc. Refer to Division 03, Concrete.
5. Miscellaneous metal Work: Include fittings, brackets, backing, supports, rods, welding and pipe as required for support and bracing of raceways, lighting fixtures, panelboards, distribution boards, switchboards, motor control centers, etc. Refer to Division 05, Miscellaneous Metals.
6. Miscellaneous lumber and framing Work: Include wood grounds, nailers, blocking, fasteners and anchorage for support of electrical materials and equipment. Refer to Division 06, Rough Carpentry.
7. Moisture protection and smoke barrier penetrations: Include membrane clamps, sheet metal flashing, counter flashing, caulking and sealant as required for waterproofing of conduit penetrations and sealing penetrations in or through fire walls, floors, ceiling slabs and foundation walls. All penetrations through vapor barriers at slabs on grade shall be taped and made vaportight. Refer to Division 07, Thermal and Moisture Protection.
8. Access panels and doors: Required in walls, ceilings and floors to provide access to electrical devices and equipment. Refer to Division 08, Access Doors also, Division 05, Metals.
9. Painting: Include surface preparation, priming and finish coating as required for electrical cabinets, exposed conduit, pull and junction boxes, etc. where indicated as field painted in this Division. Refer to Division 09, Painting.
10. Lighting fixture supports: Provide slack fixture support wire for lighting fixtures installed in acoustical tile or lay-in suspended ceilings. Refer to Division 09, Acoustical Treatment.

### 1.2 QUALITY ASSURANCE

- A. Reference to Codes, Standards, Specifications and recommendations of technical societies, trade organizations and governmental agencies shall mean that latest edition of such publications adopted and published prior to submittal of the bid. Such codes or standards shall be considered a part of this Specification as though fully repeated herein.
- B. When codes, standards, regulations, etc. allow Work of lesser quality or extent than is specified under this Division, nothing in said codes shall be construed or inferred authority for reducing the quality, requirements or extent of the Contract Documents. The Contract Documents address the minimum requirements for construction.
- C. Work shall be performed in accordance with all applicable requirements of the latest edition of all governing codes, rules and regulations including but not limited to the following minimum standards, whether statutory or not:
  1. California Electric Code (CEC)
  2. California Building Code (CBC).
  3. California Fire Code (CFC).
  4. California Mechanical Code (CMC).
- D. Standards: Equipment and materials specified under this Division shall conform to the following standards where applicable:

ACI	American Concrete Institute
ANSI	American National Standards Institute
ASTM	American Society for Testing Materials
CBM	Certified Ballast Manufacturers
ETL	Electrical Testing Laboratories

FS	Federal Specification
IEEE	Institute of Electrical and Electronics Engineers, Inc.
IPCEA	Insulated Power Cable Engineer Association
NEMA	National Electrical Manufacturer's Association
UL	Underwriters' Laboratories

### 1.3 DEFINITION OF TERMS

A. The following list of terms as used in the Division 26 documents shall be defined as follows:

1. "Provide": Shall mean furnish, install and connect unless otherwise indicated.
2. "Furnish": Shall mean purchase and deliver to Project site.
3. "Install": Shall mean to physically install the items in-place.
4. "Connect": Shall mean make final electrical connections for a complete operating piece of equipment.
5. "As directed": Shall be as directed by the Owner or their authorized Representative.
6. "Utility Companies": Shall mean the company providing electrical, telephone or cable television services to the Project.

### 1.4 COORDINATION

A. Discrepancies:

1. In the event of discrepancies within the Contract Documents, the Engineer shall be so notified, within sufficient time, as delineated in Division 01, prior to the Bid Opening to allow the issuance of an Addendum.
2. If, in the event that time does not permit notification or clarification of discrepancies prior to the Bid Opening, the following shall apply: The Drawings govern in matters of quantity and the Specifications govern in matters of quality. In the event of conflict within the Drawings involving quantities or within the Specifications involving quantities or within the Specifications involving quality, the greater quantity and higher quality shall apply. Such discrepancies shall be noted and clarified in the Contractor's Bid. No additional allowances will be made because of errors, ambiguities or omissions that reasonably should have been discovered during the preparation of the Bid.

B. Project conditions:

1. Examination of Project site: The Contractor shall visit the Project site and thoroughly review the locale, working conditions, conflicting utilities and the conditions in which the Electrical Work will take place. Verify all existing conditions in the field. No allowances will be made subsequently for any costs that may be incurred because of any error or omission due to failure to examine the Project site and to notify the Engineer of any discrepancies between Contract Documents and actual Project site conditions.
2. Protection: Keep conduits, junction boxes, outlet boxes and other openings closed to prevent entry of foreign matter. Cover fixtures, equipment, devices and apparatus and protect them against dirt, paint, water, chemical or mechanical damage, before and during construction period. Prior to final acceptance, restore to original condition any fixture, apparatus or equipment damaged including restoration of damaged factory applied painted finishes. Protect bright finished surfaces and similar items until in service. No rust or damage will be permitted.

3. Supervision: Contractor shall personally or through an authorized and competent representative constantly supervise the Work from beginning to completion and, within reason, keep the same foreman and workmen on the Project throughout the Project duration.

C. Preparation:

1. Drawings:

- a. Layout: General layout indicated on the Drawings shall be followed except where other Work may conflict with the Drawings.
- b. Accuracy: Drawings for the Work under this Section are essentially diagrammatic within the constraints of the symbology applied.

**1.5 RECORD DOCUMENTS**

A. Provide Project Record Drawings as described herein:

1. Drawings shall fully represent installed conditions including actual locations of outlets, true panelboard connections following phase balancing routines, correct conduit and wire sizing as well as routing, revised fixture schedule listing Manufacturers and products actually installed and revised panel schedules. Contractor shall record all changes in the Work during the course of construction on blue or black line prints. These prints shall be made subject of monthly review by the Owner's Representative to ascertain that they are current. If not current monthly payments may be withheld.
2. Record drawing submissions shall be provided to the Engineer to review upon the completion of the following phases of Work:
  - a. Final electrical installation.
3. A single set of half size prints of the Record Drawings shall be submitted for review. Upon receipt of the Engineer's review comments, corrections shall be made and the Contractor shall provide the following:
  - a. Two sets of full size prints.
  - b. One flash drive or DVD with electronic copies of the record drawings in PDF and AutoCAD Release 2012 file formats.

B. Panel schedules:

1. Typewritten panel schedules shall be provided for panelboards indicating the loads served and the correct branch circuit number. Schedules shall be prepared on forms provided by the Manufacturer and inserted in the pocket of the inner door of each panelboard. See Section 262416: Panelboards for requirements.

**PART 2 - PRODUCTS (NOT APPLICABLE)**

**PART 3 - EXECUTION**

**3.1 ROUGH-IN**

- A. Contractor shall verify lines, levels and dimensions indicated on the Drawings and shall be responsible for the accuracy of the setting out of Work and for its strict conformance with existing conditions at the Project site.
- B. Verify final locations for rough-ins with field measurements and with the requirements for the actual equipment to be connected.

**3.2 ELECTRICAL INSTALLATION**



- A. Preparation, sequencing, handling and installation shall be in accordance with Manufacturer's written instructions and technical data particular to the product specified and/or accepted equal except as otherwise specified. Comply with the following requirements:
1. Verify all dimensions by field measurements.
  2. Arrange for chases, slots and openings in other building components during progress of construction, to allow for electrical installations.
  3. Coordinate the installation of required supporting devices and sleeves to be set in poured-in-place concrete and other structural components, as they are constructed.
  4. Sequence, coordinate and integrate installations of electrical materials and equipment for efficient flow of the Work. Give particular attention to large equipment requiring positioning prior to closing in the building.
  5. Where mounting height is not detailed or dimensioned, contact the Architect for direction prior to proceeding with rough-in.
  6. Install systems, materials and equipment to conform with approved submittal data, including coordination Drawings, to greatest extent possible. Conform to arrangements indicated by the Contract Documents, recognizing that portions of the Work are indicated only in diagrammatic form. Where coordination requirements conflict with individual system requirements, refer conflict to the Architect.
  7. Install systems, materials and equipment level and plumb, parallel and perpendicular to other building systems and components, where installed exposed in finished spaces.
  8. Install electrical equipment to facilitate servicing, maintenance and repair or replacement of equipment components. As much as practical, connect equipment for ease of disconnecting, with minimum of interference with other installations.
  9. Coordinate electrical systems, equipment and materials installations with other building components.
  10. Provide access panel or doors where devices or equipment are concealed behind finished surfaces. Furnish and install access doors per the requirements of Division 08.
  11. Install systems, materials and equipment giving right-of-way priority to other systems that are required to maintain a specified slope.
  12. Conform to the National Electrical Contractor's Association "Standard of Installation" for general installation practice.

### **3.3 CUTTING, PATCHING, PAINTING AND SEALING**

- A. Structural members shall in no case be drilled, bored or notched in such a manner that will impair their structural value. Cutting of holes, if required, shall be done with core drill and only with the approval of the Architect and Structural Engineer.
- B. Protection of Installed Work: During cutting and patching operations, protect adjacent installations.
- C. Cut, remove and legally dispose of selected electrical equipment, components and materials as indicated, including but not limited to removal of electrical items indicated to be removed and items made obsolete by the new Work.
- D. Protect the structure, furnishings, finishes and adjacent materials not indicated or scheduled to be removed.

- E. Provide and maintain temporary partitions or dust barriers adequate to prevent the spread of dust and dirt to adjacent areas.
- F. Patch existing surfaces and building components using experienced installers and new materials matching existing materials and the original installation. For installers' qualifications refer to the materials and methods required for the surface and building components being patched.
- G. Application of joint sealers:
  - 1. General: Comply with joint sealer Manufacturers' printed application instructions applicable to products and applications indicated, except where more stringent requirements apply.
  - 2. Installation of fire-stopping sealant: Install sealant, including forming, packing and other accessory materials, to fill openings around electrical services penetrating floors and walls, to provide fire-stops and fire-resistance ratings indicated for floor or wall assembly in which penetration occurs. Comply with installation requirements established by testing and inspecting agency.

### **3.4 FIELD QUALITY CONTROL**

- A. General testing requirements:
  - 1. The purpose of testing is to ensure that all tested electrical equipment, both Contractor and Owner supplied, is operational and within industry and Manufacturer's tolerances and is installed in accordance with design Specifications.
  - 2. Tests and inspections shall determine suitability for energization.
  - 3. Perform tests in presence of the Owner's Representative and furnish test equipment, facilities and technical personnel required to perform tests.
  - 4. Tests shall be conducted during the construction period and at completion to determine conformity with applicable codes and with these Specifications.
- B. Tests: In addition to specific system test described elsewhere, tests shall include:
  - 1. Equipment operations: Test motors for correct operation and rotation.
  - 2. Lighting control circuits: Test lighting circuits for correct operation through their control devices.
  - 3. Alarm and interlock systems: Produce malfunction symptoms in operating systems to test alarm and interlock systems. In addition, all specific tests described in the fire alarm/life safety system shall be performed.
  - 4. Circuit numbering verification: Select on a random basis various circuit breakers in the panelboards and cycle them on and off to verify compliance of the typed panel directories with actual field wiring.
  - 5. Voltage check:
    - a. At completion of job, check voltage at several points of utilization on the system that has been installed under this Contract. During test, energize all installed loads.
    - b. Adjust taps on transformers to give proper voltage, which is 118 to 122 volts for 120 volt nominal systems and proportionately equivalent for higher voltage systems. If proper voltage cannot be obtained, inform the Owner and the serving Utility Company.
- C. Contractor shall provide test power required when testing equipment before service energization and coordinate availability of test power with General Contractor after service energization. The Contractor shall provide any specialized test power as needed or specified herein.
- D. Testing safety and precautions:

1. Safety practices shall include the following requirements:
    - a. Applicable State and Local safety operating procedures.
    - b. OSHA.
    - c. NSC.
    - d. NFPA 70E.
  2. All tests shall be performed with apparatus de-energized and grounded except where otherwise specifically required ungrounded by test procedure.
- E. Calibration of test equipment:
1. Testing Agency shall have calibration program that assures test instruments are maintained within rated accuracy.
  2. Instruments shall be calibrated in accordance with the following frequency schedule:
    - a. Field instruments: Analog, 6 month maximum; Digital, 12 months maximum.
    - b. Laboratory instruments: 12 months.
    - c. Leased specialty equipment: 12 months where accuracy is guaranteed by lessor.
  3. Dated calibration labels shall be visible on test equipment.
  4. Records, which show date and results of instruments calibrated or tested, must be kept up-to-date.
  5. Up-to-date instrument calibration instructions and procedures shall be maintained for test instrument.
  6. Calibration standards shall be of higher accuracy than instrument tested.
  7. Equipment used for field testing shall be more accurate than instrument being tested.
- F. Coordinate with General Contractor regarding testing schedule and availability of equipment ready for testing.
- G. Notify Owner and Engineer one week in advance of any testing.
- H. Any products which fail during the tests or are ruled unsatisfactory by the Owner's Representative shall be replaced, repaired or corrected as prescribed by the Owner's Representative at the expense of the Contractor. Tests shall be performed after repairs, replacements or corrections until satisfactory performance is demonstrated.
- I. Testing Agency shall maintain written record of tests and shall assemble and certify final test report.
- J. Include all test results in the maintenance manuals.

### **3.5 CLEANING**

- A. Prior to energizing of electrical equipment, the Contractor shall thoroughly clean the interior of enclosures from construction debris, scrap wire, etc. using Manufacturer's approved methods and materials.
- B. Upon completion of Project, prior to final acceptance, the Contractor shall thoroughly clean both the interior and exterior of all electrical equipment per Manufacturers approved methods and materials. Remove paint splatters and other spots, dirt and debris.
- C. Touch-up paint any marks, blemishes or other finish damage suffered during installation.

END OF SECTION 26 00 10



**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Work included: Labor, materials and equipment necessary to complete the installation required for the item specified under this Division, including but not limited to:
  - 1. Rigid non-metallic conduit and fittings.
  - 2. Flexible metallic conduit and fittings.
  - 3. Liquidtight flexible metallic conduit and fittings.
  - 4. Miscellaneous conduit fittings and products.
- B. Related Work: Consult all other Sections, determine the extent and character of related Work and properly coordinate Work specified herein with that specified elsewhere to produce a complete installation.
  - 1. Division 01: Cutting and patching.
  - 2. Division 31: Earthwork. Excavation and backfill for conduit and utilities on Project site.

**1.2 REFERENCES**

- A. Comply with the latest edition of the following applicable Specifications and standards except as otherwise indicated or specified:
  - 1. Federal Specifications (FS):
    - FS WW-C-563;               Electrical Metallic Tubing.
    - FS WW-C-566;               Specification for Flexible Metal Conduit.
    - FS WW-C-581;               Specification for Galvanized Rigid Conduit.
    - FS W-C-1094A;             Conduit and Conduit Fittings Plastic, Rigid.
  - 2. American National Standards Institute, Inc. (ANSI):
    - ANSI C80.1;                Rigid Steel Conduit, Zinc-Coated.
    - ANSI C80.3;                Electrical Metallic Tubing, Zinc Coated.
  - 3. Underwriters Laboratories, Inc. (UL):
    - UL 1;                       Flexible Metal Conduit.
    - UL 6;                       Rigid Metal Conduit.
    - UL 360;                    Liquid-Tight Flexible Steel Conduit.
    - UL 514B;                  Conduit, Tubing and Cable Fittings.
    - UL 635;                    Insulating Bushings.
    - UL 651;                    Schedule 40 and 80 Rigid PVC Conduit.
    - UL 651A;                  Type EB and A Rigid PVC Conduit and HDPE Conduit.
    - UL 797;                    Electrical Metallic Tubing - Steel.

UL 1242; Intermediate Metal Conduit - Steel.

4. National Electrical Manufacturer Association (NEMA):

NEMA RN1; PVC Externally coated Galvanized Rigid Steel Conduit.

NEMA TC 2; Electrical Plastic Tubing and Conduit.

NEMA TC 3; PVC Fittings for use with Rigid PVC Conduit.

NEMA TC 6; PVC Plastic Utilities Duct (EB and DB Type)

NEMA TC 9; Fittings for PVC Plastic Utilities Duct (EB and DB Type)

**1.3 SUBMITTALS**

- A. Submit in accordance with the requirements of Section 260010: Basic Electrical Requirements the following items:
1. Data/catalog cuts for each product and component specified herein, listing all physical and electrical characteristics and ratings indicating compliance with all listed standards.
  2. Clearly mark on each data sheet the specific item(s) being submitted and the proposed application.
  3. Submit Manufacturer's installation instruction. Provide written instructions for raceway products requiring glues, special tools or specific installation techniques.

**1.4 QUALITY ASSURANCE**

- A. All materials, equipment and parts comprising the units specified herein shall be new, unused and currently under production.
- B. Only products and applications listed in this Section may be used on the Project unless otherwise submitted and approved.

**PART 2 - PRODUCTS**

**2.1 MANUFACTURERS**

- A. Products furnished by the following Manufacturers shall be acceptable if in compliance with all features specified herein and indicated on the Drawings.
1. Metal conduit:
    - a. Allied Tube and Conduit Co.
    - b. Triangle PWC, Inc.
    - c. Western Tube and Conduit Corp.
    - d. Spring City Electrical Manufacturing Co.
    - e. Occidental Coating Co. (OCAL).
    - f. Alflec Corp.
    - g. American Flexible Metal Conduit Co.
    - h. Anaconda.
  2. Nonmetallic conduit:
    - a. Carlon.
    - b. PW Pipe.

3. Fittings:
  - a. Appleton Electric Co.
  - b. OZ/Gedney.
  - c. Thomas & Betts Corp.
  - d. Spring City Electrical Manufacturing Co.
  - e. Occidental Coating Co. (OCAL).
  - f. Carlon.

B. Substitutions: Under provisions of Section 260010: Basic Electrical Requirements.

## **2.2 GALVANIZED RIGID STEEL CONDUIT (GRS)**

- A. Conduit: Full weight, threaded, hot-dip galvanized steel, conforming to ANSI C80.1 and UL 6.
- B. Standard threaded couplings, locknuts, bushings and elbows: Only materials of steel or malleable iron are acceptable. Locknuts shall be bonding type with sharp edges for digging into the metal wall of an enclosure.
- C. Three piece couplings: Electroplated, cast malleable iron.
- D. Insulating bushings: Threaded polypropylene or thermosetting phenolic rated 150 degree C minimum.
- E. Insulated grounding bushings: Threaded cast malleable iron body with insulated throat and steel "lay-in" ground lug with compression screw.
- F. Insulated metallic bushings: Threaded cast malleable iron body with plastic insulated throat rated 150 degrees C.
- G. All fittings and connectors shall be threaded.

## **2.3 PVC INSULATED GALVANIZED RIGID STEEL CONDUIT (PVC GRS)**

- A. Conduit: Full weight, threaded, hot-dip galvanized steel, conforming to ANSI C80.1 and NEMA RN-1 with nominal 20 or 40 mil thermoplastic vinyl coating, heat fused and bonded to the exterior of the conduit.
- B. Fittings: Conduit couplings and connectors shall be as specified for galvanized rigid steel conduit and shall be factory PVC coated with an insulating jacket equivalent to that of the coated material.

## **2.4 INTERMEDIATE METAL CONDUIT (IMC)**

- A. Conduit: Hot dip galvanized steel meeting the requirements of NEC Article 345 and conforming to ANSI C80.6 and UL 1242.
- B. Fittings: Conduit couplings, connector and bushing shall be as specified for galvanized rigid steel conduit. Integral retractable type IMC couplings are also acceptable.

## **2.5 ELECTRICAL METALLIC TUBING (EMT)**

- A. Conduit: Shall be formed of cold rolled strip steel, electrical resistance welded continuously along the longitudinal seam and hot dip galvanized after fabrication. Conduit shall conform to ANSI C80.3 Specifications and shall meet UL requirements.
- B. Set screw type couplings: Electroplated, steel or cast malleable iron, UL listed concrete tight. Use set screw type couplings with four setscrews each of conduit sizes over 2 inches. Setscrews shall be of case hardened steel with hex head and cup point to firmly seat in wall of conduit for positive grounding.

- C. Set screw type connectors: Electroplated steel or cast malleable iron UL listed concrete tight with male hub and insulated plastic throat, 150 degree C temperature rated. Setscrew shall be same as for couplings.
- D. Raintight couplings: Electroplate steel or cast malleable iron; UL listed raintight and concrete tight, using gland and ring compression type construction.
- E. Raintight connectors: Electroplated steel or cast malleable iron, UL listed raintight and concrete tight, with insulated throat, using gland and ring compression type construction.

**2.6 RIGID NON-METALLIC CONDUIT (PVC)**

- A. Conduit:
  - 1. Rigid polyvinyl chloride, Schedule 40 or 80 conforming to NEMA TC1 and UL 651, latest edition. UL listed for exposed and direct-burial applications and for 90 degrees C conductor insulation. Conduit shall include an integral bell fitting at one end.
  - 2. Rigid polyvinyl chloride, Type EB or DB conforming to NEMA TC 6 and UL 651, latest edition. UL listed for concrete encased burial and direct burial applications and for 90 degrees C conductor insulation. Conduit shall include an integral bell fitting at one end.
- B. Fittings: Couplings, adaptors, transition fittings, etc., shall be molded PVC, slip on, solvent weld type conforming to NEMA TC3 for Schedule 40 or 80 and NEMA TC 9 for type EB or DB.

**2.7 FLEXIBLE METALLIC CONDUIT (FMC)**

- A. Conduit: Shall be fabricated in continuous lengths from galvanized steel strip, spirally wound and formed to provide an interlocking design and conforming to UL 1.
- B. Fittings: Connectors shall be of the single screw clamp variety with steel or cast malleable iron bodies and threaded male hubs with insulated throats. Exception: Pressure cast screw-in connectors shall be acceptable for fixture connection in suspended ceilings and cut-in outlet boxes within existing furred walls.

**2.8 LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT (LFMC)**

- A. Conduit: Shall be fabricated in continuous lengths from galvanized steel strips, interlocking spirally wound, covered with extruded liquidtight jacket of polyvinyl chloride (PVC) and conforming to UL 360. Provide conduit with a continuous copper-bonding conductor wound spirally between the convolutions.
- B. Fittings: Connector body and gland nut shall be of cadmium plated steel or cast malleable iron, with tapered, male, threaded hub; insulated throat and neoprene "O" ring gasket recessed into the face of the stop nut. The clamping gland shall be of molded nylon with an integral brass push-in ferrule.

**2.9 RIGID NON-METALLIC CONDUIT (FRE)**

- A. Conduit: Rigid fiberglass reinforced epoxy composed of glass filaments encapsulated in an epoxy matrix. Each conduit length shall have an integral wound in expanded couplings. Size 2" through 6" shall incorporate an integral urethane gasket for sealing. No threads or adhesive shall be required to assemble the joints for in ground installations. All conduit and fittings will be pigmented with carbon black dispersed homogeneously throughout the epoxy glass matrix for U.V. protection.
- B. Conduit and fittings shall be filament wound.
- C. Conduit shall be suitable for continuous operation from -40°C to +110°C without significant change of mechanical properties. Conduit combustion by-products shall not contain chlorine gas in excess of trace levels and always less than OSHA limits.
- D. FRE conduit shall be designated so conductors shall not adhere to conduit or fittings in fault conditions.



- E. Dimensions: Conduit and fittings in 2" through 6" sizes inclusive shall have inside diameter equal to the trade size.

## **2.10 MISCELLANEOUS CONDUIT FITTINGS AND PRODUCTS**

- A. Watertight conduit entrance seals: Steel or cast malleable iron bodies and pressure clamps with PVC sleeve, neoprene sealing grommets and PVC coated steel pressure rings. Fittings shall be supplied with neoprene sealing rings between the body and PVC sleeve.
- B. Watertight cable sealing bushings: One piece, compression molded sealing ring with PVC coated steel pressure disks, stainless steel sealing screws and zinc plated cast malleable iron locking collar.
- C. Expansion fittings: Multi-piece unit comprised of a hot dip galvanized malleable iron or steel body and outside pressure bussing designed to allow a maximum of 4" conduit movement (2" in either direction). Furnish with external braid tinned copper bonding jumper. Unit shall be UL listed for wet or dry locations.
- D. Expansion/deflection couplings: Multi-piece unit comprised of a neoprene sleeve with internal flexible tinned copper braid attached to bronze end couplings with stainless steel bands. Coupling shall accommodate .75-inch deflection, expansion or contraction in any direction and allow 30-degree angular deflections. Flexible, corrosion-resistant, watertight, moisture and heat resistant molded rubber jacket and stainless steel jacket clamps. Unit shall comply with UL467 and UL514. Manufacturer shall be OZ/Gedney Type DX, Steel City Type EDF or equal.
- E. Fire rated penetration seals:
  - 1. UL building materials directory classified.
  - 2. Conduit penetrations in fire rated separation shall be sealed with a UL classified fill, void or cavity material.
  - 3. The fire rated sealant material shall be the product best suited for each type of penetration and may be a caulk, putty, composite sheet or wrap/strip.
- F. Standard products not herein specified:
  - 1. Provide listing of standard electrical conduit hardware and fittings not herein specified for approval prior to use or installation, i.e. locknuts, bushings, etc.
  - 2. Listing shall include Manufacturers name, part numbers and a written description of the item indicating type of material and construction.
  - 3. Miscellaneous components shall be equal in quality, material and construction to similar items herein specified.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Contractor shall thoroughly examine Project site conditions for acceptance of conduit system installation to verify conformance with Manufacturer and Specification tolerances. Do not commence with installation until all conditions are made satisfactory.

### **3.2 APPLICATION**

- A. Galvanized rigid steel conduit (GRS) shall be used in the following applications:
  - 1. For feeders and branch circuits located indoors, concealed or exposed above suspended ceilings, in damp/wet locations, in crawl spaces, in attics, chases, furred spaces, equipment rooms, loading docks or in hazardous locations in accordance with NEC and local Codes.

2. For feeders and branch circuits concealed in concrete floors and walls when not in contact with earth.
- B. PVC insulated galvanized rigid steel conduit shall be used in the following applications:
  1. Use 40-mil coating for feeders and branch circuits in damp or wet locations.
  2. Use 20 or 40 mil for feeders and branch circuits concealed in concrete walls or slabs in contact with earth.
  3. Use 20 or 40-mil for runs beneath floor slabs on grade.
  4. Use 40-mil for all below grade penetrations through floor slabs on grade or exterior walls.
- C. Intermediate metal conduit (IMC): Shall be used for the same application as galvanized rigid steel conduit as specified herein.
- D. Electrical metallic tubing (EMT): Shall be used exposed or concealed for interior electrical feeders 4" and smaller, interior power and lighting branch circuits and low tension distribution system where run above suspended ceilings, in concrete slabs and walls not in contact with earth; in stud walls, furred spaces and crawl spaces. EMT shall not be installed exposed below 6 feet above the finish floor except within electrical, communication or signal rooms or closets.
- E. Rigid non-metallic conduit (PVC): Shall be used in the following applications:
  1. Schedule 40 or 80 for feeders and branch circuits run beneath ground floor slab except that bends and penetrations through the floor must be PVC coated galvanized rigid steel.
  2. Schedule 40 or 80 for exterior branch circuits directly buried in earth, 18" minimum below grade. PVC may be used below exterior slabs not subject to vehicular traffic.
  3. PVC may be used below exterior slab subjects to vehicular traffic when encased in a minimum of 2 inches of concrete.
  4. Only schedule 80 PVC may be used for above ground conduit extensions on utility poles.
  5. PVC elbows shall be radius sweep type schedule 40 for bends 45° or less and large radius sweep type schedule 80 for bends 46° or greater.
  6. In general, PVC may not be run exposed in concrete walls or in floor slabs unless expressly indicated on the Drawings.
  7. EB or DB type may be installed in lieu of the above only if encased in a minimum of 2 inches of concrete.
  8. Serving utility electrical and telephone and cable television service entrance conduits may be EB or DB type conduit only if acceptable by serving utility. Coordinate in field prior to installation.
- F. Flexible metallic conduit (FMC): Shall be used only in dry locations for connections from an adjacent outlet box or conduit to all motors, transformers, vibrating equipment or machinery, controllers, solenoid valves, float and flow switches or similar devices and to lighting fixtures installed in suspended ceilings, minimum sizes shall be 3/8" for lighting fixtures and control wiring and 1/2" for motor and transformer connections. U.O.N.
- G. Liquidtight flexible metallic conduit (LFMC): Shall be used in wet or damp locations for connections from adjacent outlet box or conduit to all motors, transformers, vibrating equipment or machinery, controllers, solenoid valves, float and flow switches or similar devices. These areas are typically food preparation and dishwashing areas, sump wells, loading docks, pump rooms, exterior areas, etc. Minimum sizes shall be 1/2".

- H. Rigid non-metallic conduit (FRE): Shall be used for direct burial, concrete encasement and for bridge applications whether suspended or encased; except in hazardous location, where indicated on Contract Drawings or by these Specification.

### 3.3 PREPARATION

- A. Locations of conduit runs shall be planned in advance of the installation and coordinated with ductwork, plumbing, ceiling and wall construction in the same areas and shall not unnecessarily cross other conduits or pipe, nor prevent removal of ceiling tiles or panels, nor block access to mechanical or electrical equipment.
- B. Where practical, install conduits in groups in parallel vertical or horizontal runs and at elevations that avoid unnecessary offsets.
- C. All conduits shall be run parallel or at right angles to the centerlines of columns and beams, whether routed exposed, concealed above suspended ceiling or in concrete slabs.
- D. Conduits shall not be placed closer than 12 inches to a flue, parallel hot water, steam line or other heat producing source or three inches from such lines when crossing perpendicular to the runs.
- E. Exposed conduit installation shall not encroach into the ceiling height headroom of walkways or doorways. Where possible, install horizontal raceway runs above water and below steam piping.
- F. The largest trade size conduits in concrete floor and wall slabs shall not exceed 1/3 the floor or wall thickness and conduits shall be spaced a minimum of three conduit diameters apart unless otherwise noted on the Drawings. All conduits shall be installed in the center of concrete slabs or wall and shall not be placed between reinforcing steel and the bottom of floor slabs.
- G. In long runs of conduit, provide sufficient pull boxes inside buildings to facilitate pulling wires and cables, with spacing not to exceed 150 feet. Support pull boxes from structure independent of conduit supports. These pull boxes are not indicated on the Drawings.
- H. Provide all reasonably inferred standard conduits fitting and products required to complete conduit installation to meet the intended application whether noted, indicated or specified in the Contract Documents or not.
- I. Connect recessed lighting fixtures to conduit runs with maximum six feet of flexible metal conduit or MC cable extending from a junction box to the fixture or manufactured wiring system.

### 3.4 INSTALLATION

- A. Install conduit in accordance with Manufacturer's written instructions, as indicated on Drawings and as specified herein.
- B. Minimum Conduit Size: Unless otherwise noted herein or on Drawings, minimum conduit size shall be 1/2" for interior applications and 3/4" for exterior and underground applications.
- C. All conduit sizes indicated on the Drawings are sized for copper conductors with THHN/THWN insulation. If conductor type or size is changed the Contractor shall be responsible for resizing conduits upward to meet Code.
- D. In general, all conduit work shall be concealed where possible. Exceptions shall be electrical, communication and mechanical rooms, exposed ceiling areas, and parking garages.
- E. Conduit connections to motors and surface cabinets shall be concealed, with the exception of electrical, communication and mechanical rooms, or unless exposed Work is clearly called for on the Drawings.
- F. Install conduits in complete runs before pulling in cables or wires.

- G. Install conduit free from dented, bruises or deformations. Remove and replace any damaged conduits with new undamaged material.
- H. Conduits shall be well protected and tightly covered during construction using metallic bushings and bushing "pennies" to seal open ends.
- I. In making joints in rigid steel conduit, ream conduit smooth after cutting and threading. Coat all field-threaded joints with UL approved conductive type compound to ensure low resistance ground continuity through conduit and to prevent seizing and corrosion.
- J. Clean any conduit in which moisture or any foreign matter has collected before pulling in conductors. Paint all field-threaded joints to prevent corrosion.
- K. In all empty conduits or ducts, install a "True Tape" conduit measuring tape line to provide overall conduit length for determining length of cables/conductors for future use.
- L. Conduit systems shall be mechanically and electrically continuous throughout. Install code size, insulated, copper, green-grounding conductors in all conduit runs for branch circuits and feeders. This conductor is not indicated on the Drawings. Refer to Section 260526: Grounding and Bonding.
- M. Metallic conduit shall not be in contact with other dissimilar metal pipes (i.e. plumbing).
- N. Make bends with standard conduit bending hand tool or machines. The use of any item not specifically designed for the bending of electrical conduit is strictly prohibited.
- O. A run of conduit between terminations at wire pulling points shall not contain more than the equivalent of four quarter bends (360 degrees, total).

### **3.5 PENETRATIONS**

- A. Locate penetrations and holes in advance where they are proposed in the structural sections such as footings, beams, wall, etc. Penetrations are acceptable only when the following occurs:
  - 1. Where indicated on the Structural Drawings.
  - 2. As approved by the Structural Engineer prior to construction and after submittal of Drawing showing location, size and position of each penetration.
- B. Cutting or holes:
  - 1. Cut holes through concrete, masonry block or brick floors and floors of structure with a diamond core drill or concrete saw. Pneumatic hammer, impact electric, hand or manual hammer type drills are not allowed, except where permitted by the Structural Engineer as required by limited working space. Obtain the approval of the Structural Engineer prior to drilling through structural sections.
  - 2. Provide sleeves or "can outs" for cast-in-place concrete floors and walls. Following conduit installation, seal all penetrations using non-iron bearing, chloride free, non-shrinking, dry-pack grouting compounds; or fire rated penetration-sealing materials.
  - 3. Cut holes for conduit penetrations through non-concrete and non-masonry walls, partitions or floors with a hole saw. The hole shall be only as large as required to accommodate the size of the conduit.
  - 4. Provide single piece escutcheon plates around all exposed conduit penetrations in public places.
- C. Sealing:
  - 1. Non-rated penetrations: Pack opening around conduits with non-flammable insulating material and seal with gypsum wallboard taping compound.
  - 2. Fire stop: Where conduits, wireways and other electrical raceways pass through fire rated partitions, walls, smoke partitions or floor; install a UL classified fire stop material to provide an

effective barrier against the spread of fire, smoke and gases. Completely fill and seal clearances between raceways and openings with the fire stop material.

- D. Waterproofing: At floor, exterior wall and roof conduit penetrations, completely seal clearances around the conduit and make watertight as specified in Division 07: Sealants and Caulking.
1. Install specified watertight conduit entrance seals at all below grade wall and floor penetrations. Conduits penetrating exterior building walls and building floor slab shall be PVC coated rigid galvanized steel.
  2. For roof penetrations furnish and install roof flashing, counter flashing and pitch-pockets as specified under Roofing and Sheet Metal Sections of the Specifications.
  3. Provide membrane clamps and cable sealing fittings for any conduit that horizontally penetrates the waterproof membrane.
  4. Conduits that horizontally penetrate a waterproof membrane shall fall away from and below the penetration on the exterior side a minimum of two times the conduit diameters.

### **3.6 CONCEALED IN CONCRETE**

- A. Install conduits approximately in the center of the slab so that there will be a minimum of 3/4-inch of concrete around the conduits.
- B. Installation of conduit in structural concrete that is less than three inches thick is prohibited. Topping slabs, maintenance pads and curbs are exempted.
- C. Tie conduits to reinforcing rods or otherwise secure them to prevent sagging or shifting during concrete placement. Run conduit larger than 1-inch trade size, parallel with or at right angles to the main reinforcement; where at right angles to the reinforcement, the conduit shall be close to one of the supports of the slab.
- D. Where nonmetallic conduit or tubing is used, raceways must be converted to PVC coated rigid steel conduit before rising above floor.
- E. Make couplings and connections watertight.
- F. Protect stub-ups from damage where conduits rise from floor slabs. Arrange so curved portion of bends is not visible above the finished slab.
- G. Provide schedule 40 non-metallic sleeve through concrete or masonry walls where aluminum conduit penetrations are required.

### **3.7 UNDERGROUND INSTALLATION**

- A. Perform trenching, backfilling and compaction operations as specified in Division 31: Trenching.
- B. Install service utility company underground conduits in strict conformance to each utility company's requirements. Obtain a copy of each utility company's installation guidelines prior to commencing Work.
- C. Tops of conduits shall be as follows unless otherwise noted:
- D. Not less than 18 inches below finished grade.
- E. Not less than 24 inches below roadways, paved parking lots, driveways or any surface subject to vehicular traffic.
- F. Not less than 4 inches below building floor slab for branch circuits. Major feeders and large signal conduits (2" and greater) at not less than 18 inches.
- G. Depth of service utility conduits shall conform to utility company requirements.

- H. Furnish and install specified underground conduit marker 12" above conduits in trenches with all buried conduits.

**3.8 TERMINATIONS AND JOINTS**

- A. Use raceway fittings that are of types compatible with the associated raceway and suitable for the use and location. For intermediate steel conduit, use threaded rigid steel conduit fittings except as otherwise indicated.
- B. Raceways shall be joined using specified couplings or transition couplings where dissimilar raceway systems are joined.
- C. Conduits shall be securely fastened to cabinets, boxes and gutters using two locknuts and an insulating bushing or specified insulated connectors. Where joints cannot be made tight, use bonding jumpers to provide electrical continuity of the raceway system. Where terminations are subject to vibration, use bonding bushings or wedges to assure electrical continuity. Where subject to vibration or dampness, use insulating bushings to protect conductors. Install grounding bushings or bonding jumpers on all conduits terminating at concentric or eccentric knockouts.
- D. Conduit terminations exposed at weatherproof enclosures and cast outlet boxes shall be made watertight using specified connectors and hubs.
- E. Stub-up connections: Extend conduits through concrete floor for connection to freestanding equipment with an adjustable top or coupling threaded inside for plugs and set flush with the finished floor. Extend conductors to equipment with rigid steel conduit; flexible metal conduit may be used 6 inches above the floor. Where equipment connections are not made under this contract, install screwdriver operated threaded flush plugs with floor.
- F. Install specified cable sealing bushings on all conduits originating outside the building walls and terminating in switchgear, cabinets or gutters inside the building. Install cable sealing bushings or raceway seal for conduit terminations in all grade level or below grade exterior pull, junction or outlet boxes.
- G. Raceway seal: Inject into wire filled raceways, a pre-formulated rigid 2 lbs. density polyurethane foam which expands a minimum 35 times it's original bulk. Foam shall have the physical properties of water vapor transmission of 1.2 to 3.0 perms; water absorption less than 2% by volume, fungus and bacterial resistant. Foam shall permanent seal against water, moisture, insects and rodents. Install raceway sealing foam at the following points:
  - 1. Where conduits enter buildings from below grade.
- H. Install expansion couplings where any conduit crosses a building separation or expansion joint as follows:
  - 1. Conduits three inches and larger, shall be rigidly secured to the building structure on opposite sides of a building expansion joint and provided with expansion or deflection couplings. Install the couplings in accordance with the Manufacturer's recommendations.
  - 2. Conduits smaller than three inches shall be rigidly secured to the building structure on opposite sides of a building expansion joint with junction boxes on both sides of the joint. Connect conduits to junction boxes with 15 inches of slack flexible conduit. Flexible conduit shall have a copper green ground-bonding jumper installed. For concrete embedded conduit, use expansion and deflection couplings as specified above for three inches and larger conduits.
- I. Use short length (maximum of 6ft) of the appropriate FMC or LFMC conduit for connections to motors and other electrical equipment subject to movement, vibration, misalignment, cramped quarters or noise transmission. Provide liquidtight flexible metal conduit for installation in exterior locations,

moisture or humidity-laden atmosphere, corrosive atmosphere, water hose or spray wash-down operations and locations subject to seepage or dripping of oil, grease or water. Provide a green ground wire with FMC or LFMC conduit.

### 3.9 SUPPORTS

- A. Provide supports for raceways as specified in Section 260529: Electrical Hangers and Supports.
- B. All raceways systems shall be secured to building structures using specified fasteners, clamps and hangers spaced according to the NEC.
- C. Support single runs of conduit using one-hole pipe straps. Where run horizontally on walls in damp or wet locations, install "clamp backs" to space conduit off the surface.
- D. Multiple conduit runs shall be supported using "trapeze" hangers fabricated from specified construction channel, mounted to 3/8-inch diameter, threaded steel rods secured to building structures. Fasten conduit to construction channel with standard one-hole pipe clamps or the equivalent. Provide lateral seismic bracing for hangers.
- E. Individual 1/2" and 3/4" conduits installed above suspended ceilings may be attached to the ceiling's hanger wire using spring steel support clips provided that not more than two conduits are attached to any single support wire.
- F. Support exposed vertical conduit runs at each floor level, independent of cabinets or switches to which they run, by means of acceptable supports.
- G. Fasteners and supports in solid masonry and concrete:
  - 1. Use steel or malleable iron concrete inserts set in place prior to placing the concrete.
  - 2. After concrete installation:
    - a. Steel expansion anchors not less than ¼ inch bolt size and not less than 1-1/8 inch embedment.
    - b. Power set fasteners not less than ¼ inch diameter with depth of penetration not less than three inches.
    - c. Use vibration and shock resistant anchors and fasteners for attaching to concrete ceilings.
- H. Hollow masonry: Toggle bolts are permitted. Bolts supported only by masonry block are not acceptable.
- I. Metal structures: Use machine screw fasteners or other devices specifically designed and approved for the application.

END OF SECTION 26 05 31





## **PART 1 - GENERAL**

### **1.1 SUMMARY**

- A. Work included: Labor, materials and equipment necessary to complete the installation required for the item specified under this Division, including but not limited to:
  - 1. Pull and junction boxes.
- B. Related Work: Consult all other Sections, determine the extent and character of related Work and properly coordinate Work specified herein with that specified elsewhere to produce a complete installation.

### **1.2 REFERENCES**

- A. Comply with the latest edition of the following applicable Specifications and standards except as otherwise indicated or specified.
  - 1. American National Standards Institute/National Electrical Manufacturer Association:  
NEMA 250;                      Enclosures for Electrical Equipment (1000 volts maximum).
  - 2. Underwriters Laboratories (UL):  
UL 50;                              Enclosures for Electrical Equipment.  
UL 1773;                          Termination Boxes.

### **1.3 SUBMITTALS**

- A. Submit in accordance with the requirements of Section 260010: Basic Electrical Requirements, the following items:
  - 1. Data/catalog cuts for each product and component specified herein, listing all physical and electrical characteristics and ratings indicating compliance with all listed standards.
  - 2. Clearly mark on each data sheet the specific item(s) being submitted and the proposed application.
  - 3. Submit Manufacturer's installation instructions.

### **1.4 QUALITY ASSURANCE**

- A. All materials, equipment and parts comprising the units specified herein shall be new, unused and currently under production.
- B. Only products and applications listed in this Section may be used on the Project unless otherwise submitted.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Products furnished by the following Manufacturers shall be acceptable if in compliance with all features specified herein and indicated on the Drawings.
  - 1. Precast concrete boxes:
    - a. Christy Concrete Products, Inc.
    - b. Brooks Products, Inc.

c. Forni Corp.

B. Substitutions: Under provisions of Section 260010: Basic Electrical Requirements.

**PART 3 - EXECUTION**

**3.1 EXAMINATION**

A. Contractor shall thoroughly examine Project site conditions for acceptance of box installation to verify conformance with Manufacturer and Specification tolerances. Do not commence with installation until all conditions are made satisfactory.

**3.2 INSTALLATION**

- A. Install boxes in accordance with Manufacturer's written instructions, as indicated on Drawings and as specified herein.
- B. Locate electrical boxes as indicated on Drawings and as required for splices, taps, wire pulling, equipment connections and Code compliance.
- C. Install junction or pullboxes where required to limit bends in conduit runs to not more than 360 degrees or where pulling tension achieved would exceed the maximum allowable for the cable to be installed. Note that these boxes are not indicated on the Drawings.
- D. Provide precast concrete boxes in exterior planting areas, walkways, roads etc.

END OF SECTION 26 05 33

**PART 1 - GENERAL****1.1 SUMMARY**

- A. Work included: Labor, materials and equipment necessary to complete the installation required for the item specified under this Division, including but not limited to:
  - 1. Wire and cable identification.
  - 2. Buried electrical line warnings.
  - 3. Junction box identification.
  - 4. Inscribed device coverplates.
- B. Related Work: Consult all other Sections, determine the extent and character of related Work and properly coordinate Work specified herein with that specified elsewhere to produce a complete installation.
  - 1. Division 09: Painting.

**1.2 SUBMITTALS**

- A. Submit in accordance with the requirements of Section 260010: Basic Electrical Requirements, the following items:
  - 1. Data/catalog cuts for each product and component specified herein.
  - 2. Schedules for nameplates to be furnished.

**PART 2 - PRODUCTS****2.1 MANUFACTURERS**

- A. Products furnished by the following Manufacturers shall be acceptable if in compliance with all features specified herein and indicated on the Drawings.
  - 1. Conduit and wire markers:
    - a. Thomas & Betts Corp.
    - b. Brady.
    - c. Griffolyn.
  - 2. Inscription Tape:
    - a. Kroy.
    - b. Merlin.
- B. Substitutions: Under provisions of Section 260010: Basic Electrical Requirements.

**2.2 NAMEPLATES**

- A. Type NP: Engraved, plastic laminated labels, Signs and Instruction Plates. Engrave stock melamine plastic laminate 1/16-inch minimum thickness for signs up to 20 square inches or 8 inches in length; 1/8 inch thick for larger sizes. Engraved nameplates shall have white letters and be punched for mechanical fasteners.
- B. Color and letter height as specified in Part 3: Execution.

**2.3 LEGEND PLATES**

## **ELECTRICAL IDENTIFICATION - SECTION 26 05 53**

### **Page 2**

- A. Type LP: Die-stamped metal legend plate with mounting hole and positioning key for panel mounted operator devices, i.e. motor control pilot devices, hand-off-auto switches, reset buttons, etc.
- B. Stamped characters to be paint filled.

### **2.4 BRASS TAGS**

- A. Type BT: Metal tags with die-stamped legend, punched for fastener.
- B. Dimensions: 2" diameter 19 gauge.

### **2.5 PANELBOARD DIRECTORIES (400 AMP OR LESS)**

- A. Directories: A 6" x 8" minimum size circuit directory frame and card with clear plastic covering shall be provided inside the inner panel door.
- B. Circuit numbering: Starting at the top, odd numbered circuits in sequence down the left hand side and even numbered circuits down the right hand side. Multi-section panelboards shall have continuous consecutive circuit numbers, i.e. Section 1 (circuit numbers 1-42), Section 2 (circuit numbers 43-84), Section 3 (circuit numbers 85-126).

### **2.6 WIRE AND TERMINAL MARKERS**

- A. Provide self-adhering, pre-printed, machine printable or write-on, self-laminating vinyl wrap around strips. Blank markers shall be inscribed using the printer or pen recommended by Manufacturer for this purpose.

### **2.7 CONDUCTOR PHASE MARKERS**

- A. Colored vinyl plastic electrical tape, 3/4" wide, for identification of phase conductors. Scotch 35 Brand Tape or equal.

### **2.8 UNDERGROUND CONDUIT MARKER**

- A. 6-inch wide, yellow polyethylene tape, with continuous black imprinting reading "Caution - Buried Electric Line Below".

### **2.9 INSCRIBED DEVICE COVERPLATES**

- A. Coverplate material shall be as specified in Section 262726: Wiring Devices.
- B. Methods of inscription: (Unless otherwise noted)
  - 1. Type-on-tape:
    - a. Imprinted or thermal transfer characters onto tape lettering system.
    - b. Tape trimmer.
    - c. Matte finish spray-on clear coating.
  - 2. Engraving:
    - a. 1/8" high letters.
    - b. Paint filled letters finished in black.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Contractor shall thoroughly examine Project site conditions for acceptance of identification device installation to verify conformance with Manufacturer and Specification tolerances. Do not commence with installation until all conditions are made satisfactory.

### 3.2 NAMEPLATES

- A. Installation:
  - 1. Degrease and clean surfaces to receive nameplates.
  - 2. Install nameplates parallel to equipment lines.
  - 3. Secure nameplates to equipment fronts using machine screws.
- B. Provide type 'NP' color coded nameplates that present, as applicable, the following information:
  - 1. Equipment or device designation.
  - 2. Amperage, KVA or horsepower rating, where applicable.
  - 3. Voltage or signal system name.
  - 4. Source of power or control.
- C. Nameplates for power system distribution equipment and devices are to be black.
- D. Nameplates for signal systems equipment and devices are to be black except as follows:
  - 1. Fire alarm and life safety - Red.
- E. Minimum letter height shall be as follows:
  - 1. For panelboards, switchboards, battery panels, etc.: ½ inch letters to identify equipment designation. Use ¼ inch letters to identify voltage, phase, wires, etc.
  - 2. For individual circuit breakers, switches and motor starters in panelboards, switchboards use 3/8-inch letters to identify equipment designation. Use 1/8-inch letters to identify all other.
  - 3. For individual mounted circuit breakers, disconnect switches, enclosed switches and motor starters use 3/8-inch letters to identify equipment designation. Use 1/8" letters to identify all other.
  - 4. For transformers use 1/2 inch letters to identify equipment designation. Use ¼ inch letters to identify primary and secondary voltages, etc.
  - 5. For equipment cabinets, terminal cabinets, control panels and other cabinet enclosed apparatus use 3/8-inch letters to identify equipment designation.

### 3.3 LEGEND PLATES

- A. Provide panel-mounted operators devices such as pilot lights, reset buttons, "HAND-OFF-AUTO" switches, etc.

### 3.4 BRASS TAGS

- A. Provide type BT tags for individual ground conductors to exposed ground bus indicating connection i.e. "UFER", "Cold water bond", etc.
- B. Provide tags for all feeder cables in underground vaults and pull boxes.
- C. Provide tags for empty conduits in underground vault, pull boxes and stubs.

### 3.5 PANELBOARD DIRECTORIES (400 AMP OR LESS)

- A. Provide typewritten directories arranged in numerical order denoting loads served by room number or area for each circuit.
- B. Verify room numbers or area designation with Project Manager.

- C. Mount panelboard directories in a minimum 6" x 8" metal frame under clear plastic cover inside every panelboard.

**3.6 WIRE AND CABLE IDENTIFICATION**

- A. Provide wire markers on each conductor in panelboards, pull boxes, outlet and junction boxes and at load connection. Identify with branch circuit or feeder number for power and lighting circuits and with control wire number as indicated on equipment Manufacturer's Shop Drawings for control wiring.
- B. Provide colored phase markers for conductors as noted in Section 260519: Building Wire and Cable. Apply colored, pressure sensitive plastic tape in half-lapped turns for a distance of 3 inches from terminal points and in boxes where splices or taps are made. Apply the last two laps of tape with no tension to prevent possible unwinding. Do not cover cable identification markings by taping.

**3.7 UNDERGROUND CONDUIT MARKERS**

- A. During trench backfilling, for exterior underground power, signal and communications lines, install continuous underground plastic line marker, located directly above line at 6 to 8 inches below finished grade. Where multiple lines installed in a common trench or concrete envelope, do not exceed an overall width of 16 inches; install a single line marker.

**3.8 JUNCTION BOX IDENTIFICATION**

- A. The cover of junction, pull and connection boxes for both power and signal systems, located above suspended ceilings and below ceilings in non-public areas, shall be clearly marked with a permanent ink felt pen. Identify the circuit(s) (panel designation and circuit numbers) contained in each box, unless otherwise noted or specified.

**3.9 INSCRIBED DEVICE COVERPLATE**

- A. General:
  - 1. Lettering type: Helvetica, 12 point or 1/8" high.
  - 2. Color of characters shall be black.
  - 3. Locate the top of the inscription 1/2" below the top edge of the coverplate.
  - 4. Inscription shall be centered and square with coverplate.
- B. Application:
  - 1. Provide inscribed coverplates for devices as outlined below:
    - a. Receptacles.
    - b. Outlets in surface raceways.
    - c. Multi-ganged (four or more) switch arrangement.
    - d. Special purpose switches, i.e. projection screens, shades, exhaust fans, etc.
    - e. Telecommunication outlets.
  - 2. Type-on-tape inscriptions shall be provided for the following devices:
    - a. Receptacles.
    - b. Outlets in surface raceways.
    - c. Telecommunication outlets.
    - d. Type-on-tape installation:

- 1) Tape shall be trimmed to the height of the letters.
  - 2) Trim tape length to 1/4 inch back from each edge of coverplate.
  - 3) Contractor hands shall be clean or covered with surgical type glove prior to application of tape. Tape installations with visible fingerprints or smudges will not be acceptable.
3. Engraved inscriptions shall be provided for the following devices:
- a. Multi-ganged switches.
  - b. Special purpose switches.

END OF SECTION 26 05 53





### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

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

#### **1.2 SUMMARY**

- A. This Section includes earthwork and related work as shown and specified.

#### **1.3 SUBMITTALS**

- A. Samples: If specifically requested.
- B. Test Reports: Refer to Section 01 45 29 - TESTING LABORATORY SERVICES

#### **1.4 QUALITY ASSURANCE**

- A. Reference Documents:
  - 1. Site Survey and Topographic Information: A site survey was made by Warren Consulting Engineers and is included in these documents as a reference. Included surveys are not part of the contract documents prepared by Architectural Nexus Architects. Verify locations of utilities and existing surface features prior to beginning construction. Notify Architect of any discrepancies found.
- B. Reference Standards:
  - 1. Local Jurisdictions: Perform work in accordance with municipal agency and utility company standards and requirements.
  - 2. American Association of State Highway and Transportation Officials (AASHTO): Standards.
  - 3. American National Standards Institute (ANSI): Standards.
  - 4. American Society of Testing Materials (ASTM):
    - a. General: Materials and testing standards as identified throughout this Section.
    - b. ASTM D2487: Classification of Soils for Engineering Purposes.
  - 5. State of California, Department of Transportation: Standard Specifications.
  - 6. California Occupational Safety and Health Administration (CalOSHA): Construction Safety Orders.
  - 7. California State Industrial Accident Commission (CSIAC): Trench Construction Safety Orders.
  - 8. U.S. Occupational Safety and Health Administration (OSHA): Standards - 29 CFR, PART 1926 Safety and Health Regulations for Construction, Subpart P - Excavations.

9. California Environmental Protection Agency Department of Toxic Substances Control (DTSC): Information Advisory Clean Imported Fill.
- C. Testing: Refer to Section 01 45 29 - TESTING LABORATORY SERVICES.
  1. Geotechnical Engineer: A Geotechnical Engineer will be retained by the Owner to observe performance of and determine compliance with excavation, trenching, soil treatment, filling, backfilling and grading requirements; and perform testing.
  2. Retesting: Paid for by School District and deducted from cost of Contract.

## **PART 2 - PRODUCTS**

### **2.1 FILL MATERIALS:**

- A. Engineered Fill: Approved native on-site materials supplemented with approved import material as needed. Imported soil must meet the guidelines established in the "Information Advisory for Clean Imported Fill" published by the DTSC. Approval of soil to be imported must be obtained prior to delivery to site.
  1. [Imported Non-Expansive Fill: Granular, compactable soil subject to approval of geotechnical engineer with plastic index less than 15, expansion index less than 20, maximum particle size of 3 inches, and shall have less than 5 percent of the material greater than 1 inch in greatest dimension.][ Inorganic R value of 25, liquid limit less than 30, plastic index 5 to 15, with the following gradations:

<u>Sieve Size</u>	<u>Percentage Passing</u>
a. 3 inch	100 percent
b. 3/4 inch	70-100 percent
c. No. 4	50-100 percent
d. No. 200	0 - 40 percent]
  2. On-Site Fill: On-site native soil; free of organic or deleterious material; no rocks or lumps larger than **3** inches in any dimension.
- B. Trench Backfill: On-site native soil; free of organic or deleterious material; no rocks or lumps larger than 3 inches in any dimension. No more than 15 percent of material shall be larger than 1 inch in any dimension].
- C. Aggregate Fill:
  1. General: Materials free of silt, clay, loam, shale, friable or soluble materials, debris, vegetation and foreign matter.
  2. Sand: ASTM C144.
  3. Drain Rock: Crushed rock, natural rock, or pea gravel. Grading: ½ inch minimum, 2 inches maximum.
  4. Aggregate Base: CalTrans Standard Specifications, Section 26, Class 2 aggregate base; 3/4 inch maximum.

- 5. Permeable: Class 2 permeable material per CalTrans Section 68 or mixture of coarse and fine aggregates as routinely proportioned for concrete mix design with 1 inch maximum aggregate per ASTM C33.
- D. Trench Bedding Materials: Refer to Section 33 00 00 – SITE UTILITIES, Section 33 40 00 – STORM DRAINAGE UTILITIES, Division 22 – PLUMBING, Division 23 – HEATING, VENTILATING AND AIR CONDITIONING, or Division 26 – ELECTRICAL GENERAL REQUIREMENTS for bedding materials required for buried materials specified in their respective sections.
- E. Concrete Fill: Refer to Section 03 30 00 – CONCRETE.
- F. Topsoil:
  - 1. Native: Stripped or excavated material containing organics, free of roots, rocks larger than 1½ inch in least dimension, debris, vegetation and foreign matter. Top 4 inches of soil below existing grade is defined as native topsoil.
  - 2. Imported: Friable loam; free of roots, rocks larger than ½ inch, subsoil, debris, vegetation, and foreign matter, with an acidity range (pH) of 5.5 to 7.5, containing a minimum of 4 percent and a maximum of 25 percent inorganic matter.

## **2.2 GEOTEXTILE FABRIC**

- A. N-Series geotextiles manufactured by Mirafi, Inc or Amocco 4546, or equivalent

## **2.3 SOIL TOXICANT MATERIAL**

- A. Refer to Section 31 31 00 – SOIL TREATMENT.

## **2.4 WATER**

- A. Potable; free of deleterious materials.

# **PART 3 - EXECUTION**

## **3.1 EXAMINATION**

- A. General: Verify site conditions shown, report all unidentified conditions to the Architect.
- B. Utilities: Verify locations of existing utilities by pot-holing. Examine site for unidentified utilities. Should such utilities be discovered, do not proceed until identified and instructions are received from responsible utility company.
- C. Archaeological Artifacts: Should any objects of possible historic interest be encountered during operations, halt work in area of discovery and immediately contact the Architect for notification of appropriate authorities.

**3.2 PREPARATION**

- A. Environmental Requirements: Do not place, spread or compact fill material during unfavorable weather conditions. When work is interrupted by rain, do not proceed with fill operations until field tests indicate that moisture content and density of previously placed fill is satisfactory.
- B. Coordination: Keep Owner, Inspector, Architect, Testing Lab, and Geotechnical Engineer informed of progress of work and changes in schedule in order to facilitate Owner's verification engineered fill construction and unit price excavation.
- C. Layout:
  - 1. General: Establish lines, levels and grades; locate work, including existing underground utilities; set markers and stakes. Construction staking to be performed by civil engineer or land surveyor licensed by the State of California.
  - 2. Trees and Shrubs: Tag or identify existing plant life designated to remain.
- D. Protection:
  - 1. General: Erect and maintain barricades and protection facilities, as required.
  - 2. Bench Marks: Protect survey control points from damage or displacement.
  - 3. Utilities:
    - a. General: Maintain and protect existing utilities to remain. Schedule interruption of service required by work of this Section.
    - b. Location of Utilities: Should the location of existing utilities differ from location shown or are found to interfere with permanent facilities being constructed under this Section, immediately notify the Architect. Do not proceed until written instructions are received from the Architect.
    - c. Unknown Active Utility Lines: Should unknown active utilities be encountered during work, halt operation, take such action required to assure that service is not interrupted, and promptly notify the Architect.
  - 4. Underpinning: Underpin adjacent structures, including service utilities and pipe chases, as required to prevent damage or erosion by excavation work.
  - 5. Shoring, Sheet piling, Lagging and Bracing: Provide as required to maintain excavations and banks in a safe and stable condition and resist erosion.
  - 6. Plant protection: Carefully protect existing trees and shrubs identified to remain per Section 01 56 39 – TEMPORARY TREE AND PLANT PROTECTION. Replace existing trees and shrubs outside construction area damaged by operations.
  - 7. Explosives: Do not use explosives.
  - 8. Drainage: Conduct grading operations in such a manner as to prevent surface water run-off from ponding in areas to be worked or from flowing into excavation or on to adjacent properties. Keep excavations and sub-grade area free from water during process of work, regardless of cause,

source or nature of water. Direct or pump drainage to temporary drainage or collection system. Excess water interfering with progress of work shall be disposed of off site.

9. Dust Control: Wet as required.

### 3.3 PERFORMANCE

- A. General: Clear and grub site. Excavate, fill, compact, and grade to achieve finish grades, lines, levels and contours shown.
1. Subgrade Elevations: Subgrade is defined as the top surface of subsoil immediately below any topsoil or aggregate fill. Determine subgrade elevations by subtracting the thickness of pavement section, topsoil, or slab and aggregate fill from the finish elevations shown.
  2. Compaction: ASTM D1557 Compaction Test method; value of optimum moisture content and density will be determined by Geotechnical Engineer, unless otherwise noted.
  3. Moisture Condition: Wet and mix soil to uniform moisture content of between 2 and 5 percent above the optimum moisture content or as required by Geotechnical Engineer **on** site. When moisture content is too high to achieve compaction, aerate by blading or other methods until moisture content is satisfactory.
- B. Demolition:
1. General: Per Section 02 41 00 - DEMOLITION.
  2. Existing Paving: Remove and recycle concrete and asphalt concrete paving from site unless designated to remain.
  3. Other Obstructions: Remove abandoned utility lines, concrete foundations, etc. Backfill resulting holes as specified.
- C. Clearing and Grubbing:
1. General: Remove surface vegetation, debris, and other deleterious materials in areas designated for construction.
  2. Trees and Shrubs: Remove as indicated, including stumps, main root ball and root system as required.
  3. Organic Soils: Soils high in organics shall be stockpiled for use as top soil or removed from site.
  4. Processing Original Ground Surface: The exposed soils in all areas of the site shall be processed to a depth of not less than 12 inches and not more than 18 inches. The processing shall be accomplished by use of rotary mixing equipment capable of breaking up soil clods to particles less than 1½ inches in least dimension and uniformly blending the soil and remaining vegetation to concentrations considered to be insignificant to the Geotechnical Engineer.
- D. Excavation:

1. General: Excavate, fill, compact, and grade to achieve finish grades, lines, levels and contours shown.
2. Subsoil: Excavate subsoil required for building foundations, slabs, construction operations and other work. Stockpile subsoil in designated area on site; remove excess subsoil not being reused from site. Protect stockpiled subsoil from erosion until removed for final placement
3. Topsoil:
  - a. Stripping: Excavate topsoil to condition specified, free of rocks and organic debris, from areas to be further excavated, re-landscaped, or re-graded; do not mix with foreign materials.
  - b. Stockpiling: Stockpile in area designated on site to depth not exceeding 8 feet; protect from erosion. Provide quantity great enough to provide minimum 8 inch layer of material at areas designated for planting; supplement with imported topsoil, if required. Remove excess topsoil not intended for reuse, from site **[and recycle]**.
4. Overexcavation:
  - a. General: Overexcavate to expose undisturbed native soils (anticipated to be at a depth of 18 inches below the ground surface). Extend excavation a minimum of 5'-0" beyond building limits and 2'-0" beyond paving limits.
  - b. Accidental Overexcavation: Report to geotechnical engineer and repair as directed.
  - c. Unsuitable Ground: Report soft ground or other unsuitable soil found when excavating to the geotechnical engineer; do not build on any soft or unsuitable surface. Repair as directed by the geotechnical.
5. Original Ground Surface Preparation:
  - a. General: At areas to received pavement or structures, scarify and recompact existing ground as described below. Scarification and recompaction not required at areas to receive landscaping or shallow top soil fill.
  - b. Scarification: Subgrade soils exposed by excavation or subgrade soils that have been allowed to desiccate prior to placement of fill, slabs or pavements, shall be disked or plowed to depth of 6 inches.
  - c. Moisture Conditioning: After scarification and prior to compaction, the soils on which fill will be placed, and soil subgrade areas achieved by excavation or left at existing grade, shall be moisture conditioned to at least 2 percent above the optimum moisture content.
  - d. General Compaction: Once the soils have been moisture conditioned to the satisfaction of the Geotechnical Engineer's representative, the soil shall be compacted to at least 90 percent of the ASTM D1557 maximum dry density for building pads and exterior flatwork.
  - e. Compaction at Asphalt Pavement: In pavement areas, the upper six inches of subgrade soils shall be compacted to at least 95 percent of the maximum dry density, regardless of whether the subgrade surface is achieved by excavation, filling or is near the original site grade.
6. Trenches:

- a. General: Excavate to achieve required levels. Comply with requirements of jurisdictional agencies.
  - b. Utility Trenching: Excavate straight and true to line and grade and sufficiently wide to enable installation and allow for inspection. Excavate to depth required to for utility installation at grades shown allowing for minimum cover, installation of crossing utilities, and required depth of bedding below utilities. Refer to Section 33 00 00 – SITE UTILITIES, Section 33 40 00 – STORM DRAINAGE UTILITIES, Division 22 – PLUMBING, Division 23 – HEATING, VENTILATING AND AIR CONDITIONING, and Division 26 – ELECTRICAL GENERAL REQUIREMENTS for additional requirements affecting trenching.
  - c. Footings: Excavate to adequate width to allow for installation of formwork. Where earth is sufficiently stable to retain its position during concreting and concrete will be poured directly into excavation, cut trench a minimum of 2 inches larger than shown.
- E. Bedding: Install as specified for buried material. Refer to Section 33 00 00 – SITE UTILITIES, Section 33 40 00 – STORM DRAINAGE UTILITIES, Division 22 – PLUMBING, Division 23 – HEATING, VENTILATING AND AIR CONDITIONING, or Division 26 – ELECTRICAL GENERAL REQUIREMENTS for respective requirements.
- F. Filling and Backfilling:
- 1. General: Perform fill and backfill operations in the presence of the Geotechnical Engineer who will make field density tests to check compaction of fill material. Remove shoring, sheeting, lagging and bracing prior to commencing operations. Fill to subgrades established by finish contours and elevations shown.
  - 2. Soil:
    - a. General: Use On-Site Engineered Fill under buildings and paving areas except where Imported Non-Expansive Engineered Fill is called for on Drawings. Place in layers not exceed 9 inches in loose thickness; rocks larger 3 inch not permitted in the upper 12 inches of fill.
    - b. Moisture Condition: Moisture condition, uniformly mix, and evenly spread each layer.
    - c. Compaction: After each layer has been placed, mixed and spread, compact to the following percentages of maximum dry density:
      - i. 90 Percent: All fills unless specified otherwise.
      - ii. 95 Percent: Upper **[six inches]** of fill or existing soils below asphalt pavement.
      - iii. 85 Percent: Trench backfill in landscaped areas
      - iv. Fill in Trenches and Adjacent to Walls: Backfill with material excavated, unless otherwise shown. Moisture condition place in 6 inch layers and compact each layer to density specified for adjacent material. In trenching through native soil compact to 90 percent relative compaction. Backfill simultaneously on each side of un-braced foundation walls, or utility pipes, conduits or structures.
  - 3. Aggregate Fill:
    - a. General: Do not place fill on soft, muddy, or frozen surfaces.
    - b. Base: Spread aggregate over prepared substrate to a total compacted thickness as shown. Compact to 95 90 percent of maximum dry density.

- c. Drain Rock: Place after underground work and foundations are in place; Compaction is required under buildings or paved areas where depth of free-draining aggregate exceeds one foot. Place fill in one foot lifts and make one pass with vibratory type compaction equipment at each lift.
- d. Permeable: Place as shown.

**G. Grading:**

- 1. General: Uniformly grade to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines and elevations shown. Cut out soft spots, fill low spots, and trim high spots.
- 2. Adjacent Grades: Provide smooth transition between adjacent existing grades and new grades.
- 3. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to elevations established by finish grades and contours to within the following tolerances:
  - a. Landscaped or unpaved areas: Plus or minus .01 feet.
  - b. Walks: Plus or minus .01 feet.
  - c. Pavements: Plus or minus ½ inch.
  - d. Under buildings: Plus or minus ½ inch.

**3.4 FIELD QUALITY CONTROL**

- A. Field Testing: Refer to Section 01 45 29 - TESTING LABORATORY SERVICES.
- B. Retesting: Make necessary corrections to non-conforming work; retest at Contractor's expense.
- C. Record Survey By Owner: Location, size and elevation of building pads and depth of engineered fill at building pads will be verified by a Land Surveyor licensed in the State of California. Pad certification will be at Owner's expense with the following exception: If any pads are found to have been constructed incorrectly, subsequent verifications costs for rechecking pads will be back charged to the contractor and deducted from the contract amount.]

**3.5 CLEANING**

- A. Keep premises free from accumulation of waste and debris. At completion of installation remove surplus materials and debris. Do not bury or burn rubbish on the site.

**END SECTION 31 00 00**



**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

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

**1.2 SUMMARY**

- A. This Section includes asphalt concrete paving and related work as shown and specified.

**1.3 SUBMITTALS**

- A. Paving Materials: Submit certificates that materials comply with specified requirements.
- B. Wheel Stops: Per product data and manufacturing installation instructions.
- C. Closeout Submittals:
  - 1. Provide completed Guarantee form per Article 1.5.

**1.4 GUARANTEE**

- A. Provide in required form for a period of 2 years from date of acceptance by Owner.

**PART 2 - PRODUCTS**

**2.1 BASE COURSE AGGREGATE**

- A. General: CalTrans Standard Specifications, Section 26, Class 2 aggregate base; 3/4 inch maximum.
- B. Asphalt Binder: Steam-refined paving asphalt per CalTrans Standard Specifications, Section 92, Grade PG 64-10.

**2.2 SURFACE COURSE AGGREGATE**

- A. Mineral aggregates for Type "B" asphalt concrete, per CalTrans Standard Specifications, Section 39-02, Type B, ½ inch maximum grading.

**2.3 SEAL COAT:**

- A. Acceptable Products: OverKote Asphalt Pavement Coating, as manufactured by RaynGuard Protective Materials, Inc.
- B. Alternate Products: Comparable products manufactured by Reed and Graham, Inc. Proposed equals are subject to review and approval by Architect.

**2.4 WOOD HEADERS AND STAKES**

- A. Foundation Grade Redwood.

**2.5 MIXES**

- A. General: Plant mixed per CalTrans Standard Specifications, Section 39, Type B, ½ inch maximum grading.
- B. Temperature of Asphalt: 275 degrees F minimum; 325 degrees F maximum, when added to aggregate.
- C. Temperature of Aggregate: 250 degrees F minimum; 325 degrees F maximum, when asphalt is added.

**PART 3 - EXECUTION**

**3.1 EXAMINATION**

- A. Examine conditions of work in place before beginning work; report defects.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

**3.2 PREPARATION**

- A. Take field measurements; report variance between plan and field dimensions.
- B. Environmental Requirements:
  - 1. Base Course: Do not lay during wet weather, on muddy sub-grade, or when atmospheric temperature is below 35 degrees F.
  - 2. Asphalt Surfacing: Do not apply during wet weather, on wet base course, or when atmospheric temperature is below 40 degrees F.
- C. Preparation of Subgrade: Clean, shape and compact to hard surface free from elevations or depressions exceeding 3/8 inch in 10'-0" from true plane. Compact to not less than 95% of maximum dry density per ASTM D1557, as specified under Section 31 00 00 – EARTHWORK AND TRENCHING.
- D. No pavement marking to be performed until Architect has approved the marking placement.

**3.3 INSTALLATION**

- A. Required Thickness After Compaction:
  - 1. Aggregate Base Course: As shown.
  - 2. Asphalt Concrete Surface Course: As shown.
- B. Headers:
  - 1. General: Install at edge of asphalt paving, except where adjacent to existing pavement, concrete curbs, walks or building. Use ½ inch thick boards where required for bending.

2. Existing Headers: Remove where new paving will join existing.
  3. Lines and Levels: Install true to line and grade. Nail stakes at spacing shown, with 2 - 16d galvanized common nails. Cut off tops of stakes at an angle to reduce their visibility on completion.
- C. Asphalt Paving:
1. Aggregate Base Course: Install per CalTrans Standard Specifications, Section 26; compact to relative compaction of not less than 95%, ASTM D1557.
  2. Soil Treatment: Apply toxicant chemicals per manufacturer's instructions over entire base course area just prior to application of asphalt.
  3. Asphalt Binder: Apply as "tack coat" to all vertical surfaces of existing paving, curbs, walks, and construction joints in surfacing against which paving is to be placed. Apply at rate of 0.02 to 0.10 gallons per square yard of surface.
  4. Asphalt Concrete Surface Course:
    - a. General: Per CalTRANS Standard Specifications, Section 39-6 except as modified below.
    - b. Final Gradation: Smooth, uniform and free of ruts, humps, depressions or irregularities, with a minimum density of 95% of maximum theoretical unit weight as determined by California Test Method No. 304. Maximum variation 1/8 inch in 10'-0" when measured with steel straightedge in any one direction. Test paved areas for proper drainage by applying water to cover area. Correct portions that do not drain properly by patching with plant mix.
  5. Seal Coat: Thoroughly clean all surfaces of dust, oil spots and other foreign material. Apply a minimum of 30 days after placement of paving. Mix and apply per manufacturer's instructions. Apply 2 coats, minimum, at a rate of 30 gallons of material per 1,000 square feet, minimum. Additional applications may be required to provide uniform surface.
- D. Patching: Cut existing paving square and plumb at all edges to be joined by new paving. Prime vertical surfaces before installing new work. Warp carefully to flush surface, with seal over joints, and feather edge. Patch existing paving where cut for installation of piping or conduits under DIVISION 26 - ELECTRICAL.

END SECTION 32 12 00



**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

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

**1.2 SUMMARY**

- A. This Section includes site utility services and related work as shown and specified.

**1.3 SUBMITTALS**

- A. Product Data: Submit manufacturer's specifications, data, and installation instructions for review.
- B. Certificates: Submit certificate in lieu of manufacturer's name and pressure rating marked on valve body of valves and gas cocks, as required.
- C. Closeout:
  - 1. O & M Manuals: Maintenance instructions.
  - 2. Guarantee: Provide completed form per Article 1.5.

**1.4 QUALITY ASSURANCE**

- A. Qualifications: Welders to be AWS certified.

**1.5 GUARANTEE**

- A. Provide in required form for a period of 1 year from date of acceptance by Owner.

**PART 2 - PRODUCTS**

**2.1 PIPING**

- A. General: Refer to Division 22 – PLUMBING for detailed pipe and fitting requirements.
- B. Sanitary Sewer:
  - 1. Outside Property Line: Per applicable utility service regulations and standards.
  - 2. Within Property: PVC, SDR 35
  - 3. Manholes: As shown, per jurisdictional requirements.
- C. Water:

## **SITE UTILITIES - SECTION 33 00 00**

### **Page 2**

1. To Meter and Detector Check: Per applicable utility service regulations and standards.
2. Potable Water from Meter: As shown.
  - a. 4 Inch and Larger:
    - i. General: PVC, AWWA C900, Class 150.
    - ii. Fire Prevention: PVC, AWWA C900, Class 200.
  - b. 3 Inch and Smaller: Copper; pressure Type[ K; joints 95/5 solder.
  - c. Meter: Per jurisdictional requirements.

## **2.2 VALVES**

- A. General: Outside property line, conform to applicable utility service regulations and standards.
- B. Valves:
  1. Water:
    - a. General: Per AWWA Standards.
    - b. Fire Protection: Per UL and FM Standards.
- C. Valve Boxes: As detailed. Precast concrete boxes with extensions and cast iron frame and cover. Cover marked "Water" or "Gas" applicable to valve.

## **2.3 BACKFLOW PREVENTORS**

- A. Per applicable utility service requirements.

## **2.4 DETECTABLE WARNING TAPE**

- A. Acid and alkali resistant polyethylene film manufactured for marking and identifying underground utilities, 6 inches wide and 4 mils thick minimum, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep.

## **2.5 BEDDING MATERIALS**

- A. Refer to Section 31 00 00 - EARTHWORK AND TRENCHING.

## **2.6 DRAINAGE SPECIALTIES**

- A. Per Section 33 40 00 – STORM DRAINAGE UTILITIES.

## **2.7 LANDSCAPE IRRIGATION SYSTEM**

- A. Per Section 32 84 00 - IRRIGATION.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Before trenching, verify site conditions shown; verify locations of existing utilities by pot-holing. Report any discrepancies to Architect. Do not begin affected work until discrepancies have been resolved. Examine site for unidentified utilities and unidentified site conditions. Report all discovered conditions or utilities to the Architect. Do not proceed with affected work until any conflicts have been resolved.

### **3.2 PREPARATION**

- A. Protection: Conform to "Trench Construction Safety Orders", California State Industrial Accident Commission.
- B. Coordination: Coordinate off-site service connections with utility companies. Coordinate connections within the building line with the respective building trades.

### **3.3 INSTALLATION**

- A. Install in conformance with referenced standards, manufacturer's written directions, as shown, and as specified.
- B. Lay out systems by instrument; verify location and elevation of points of utility service and existing crossing utilities prior to excavation; notify Architect of discrepancies noted.
- C. Lay pipe true to line and uniform grade commencing at point of utility service connection. Make connections to utility service and building systems.
- D. Excavation and Bedding:
  - 1. General: Per Section 31 00 00 - EARTHWORK AND TRENCHING. Trench width to be a minimum of 12 inches wider than outside diameter of pipe, bottom smooth and free of irregularities or rock points.
  - 2. Bedding: Provide bed of clean sand for the full length of the pipe; minimum 4 inches thick, or 1/8 the outside diameter of the pipe, whichever is greater. Provide bell holes and depressions for pipe joints only of size required to properly make joint.
- E. Gravity Flow Sanitary Sewer: Per manufacturer's recommendations for jointing and installation; provide manufacturer's adapters for jointing to other pipe materials.
- F. Water Piping:
  - 1. Jointing: Per manufacturer's recommendations.
  - 2. Thrust Blocks: Construct as detailed.
  - 3. Valves: Place at required locations, vertically plumb; set valve boxes to finish elevation.
  - 4. Utility Service Meters: Locate as shown.
  - 5. Sidewalk Hydrants: As shown, per local jurisdictional requirements.

**G. Backfilling:**

1. General: Per Section 31 00 00 - EARTHWORK AND TRENCHING; do not start backfill operations until required testing has been accomplished.
2. Detectable Warning Tape: Install directly above utilities, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs. Verify that inscribed description is properly coordinated with identified utility.
3. Trenches and Excavations: Backfill with clean sand to 12 inches above top of pipe, filling both sides of the pipe at the same time, carefully tamping to hold pipe in place without movement. Place in 6 inch lifts; compact each layer to density of adjacent undisturbed soil. Jetting will not be allowed.

**3.4 FIELD QUALITY CONTROL**

**A. Testing:**

1. General: Test systems for water tightness at a hydrostatic pressure as follows:
2. Gravity Sewer: 10 pounds per square inch for a period of 4 hours.
3. Water and Sewer Force Main:
  - a. General: 150 pounds per square inch for a period of 4 hours.

**B. Disinfection: Flush and disinfect per Section 33 13 00 - DISINFECTING.**

**C. Retesting: Make necessary corrections to work that is not in conformance with specified requirements and retest at Contractor's expense.**

**3.5 CLEANING**

- A. Keep premises free from accumulation of waste and debris. At completion of installation remove surplus materials and debris.**

**END SECTION 33 00 00**